

17 December 2018

G0092:RPH 29327 Doc Review 52 Golf Rd, Oakleigh Sth-Rev01

Joe Khougaz Golf Road Project Development Pty Ltd C/o VIMG Level 27/367 Collins Street Melbourne VIC 3000

Dear Joe,

## Desktop Review of Environmental Assessment Reports for 52 Golf Road, Oakleigh South, Victoria

Prensa Pty Ltd (Prensa) was engaged by Golf Road Project Development Pty Ltd (Golf Road Project Development) on behalf of VIC Investments Management Group Pty Ltd (VIMG) to review available environmental assessment reports for the former Oakleigh South Primary School located at 52 Golf Road, Oakleigh South (the Site). The review was requested to address potential data gaps in previously completed environmental assessment work.

## 1 Background

Golf Road Project Development plans to develop the Site for residential purposes. The Site has an estimated land area of 20,193 m<sup>2</sup>.

Prensa previously completed an Environmental Site Assessment (ESA) at the Site (reference: Prensa, *Environmental Site Assessment, 1 Beryl Avenue, Oakleigh South Victoria* (Revision 1: August 2013)) on behalf of the Department of Treasury and Finance (DTF). It is noted that 1-17 Beryl Avenue was the former address and the Site is now identified as 52 Golf Road. The report involved the review of a number of previously completed assessment reports. Prensa also conducted additional targeted soil assessment works around the former location of two (2) underground storage tanks and completion of a groundwater monitoring event.

A Site Development Management Plan (SDMP) was subsequently developed for the Site by Prensa (reference: Prensa, *Site Development Management Plan, 1 Beryl Avenue, Oakleigh South Victoria*, August 2013) to assist in future management of asbestos at the Site.



Environmental Resources Management Australia Pty Ltd (ERM) was formerly commissioned by Currie & Brown to provide environmental advice related to the potential purchase of the Site (reference: ERM, *Re: Technical Review: 1-17 Beryl Avenue, Oakleigh South,* 8 August 2016 (ERM 2016)). The scope of review was limited to Prensa's ESA (2013) and SDMP (2013) as well as an ENSR AECOM, *Additional Environmental Site Assessment, Former Oakleigh South Primary School, Beryl Avenue, Oakleigh, Victoria* (January 2008). The review concluded that, *"the requirement or otherwise for an Environmental Audit will be generally be determined in the first instance by the local Planning Authority. The environmental assessments described by Prensa (2013a) suggest a low level of environmental risk and that an Environmental Audit is not required. However, this case will be strengthened by addressing the data gaps identified in the previous section, either by reference to historical reports or by completing additional works.* 

These data gaps include:

- Extent and quality of shallow fill close either by review of historical data or by intrusive works, include potential presence of ACM buried in fill, utilities constructed from ACM and aesthetics;
- Groundwater quality at i) lead "hotspot" and ii) in the western portion of the site close by installing at least two new wells in the western portion of the (no existing wells) and then complete a groundwater monitoring event; and
- Status of landfill gas risk assessment close by review of existing report."

Given the amount of assessment work that has been conducted to date at the Site, and in light of the fact that ERM were provided with only three (3) of the eleven (11) previous environmental assessments of the Site as part of their review, Golf Road Project Development has requested Prensa conducts a detailed review to identify whether these gaps require further assessment work.

## 2 Objective

The objective of this review is to assist Golf Road Project Development in addressing potential data gaps in previously completed environmental assessment work.

## 3 Scope of Work

Prensa's scope of work included:

- Complete a desktop review of available documentation to close data gaps identified by ERM, where possible;
- Document the findings of the desktop review in this letter report; and
- Where data gaps are noted to remain, provide recommendations for further works.

### 4 Legislative Framework

In completing the above tasks, Prensa gave consideration to the following regulatory framework:

- Environmental Protection Act 1970;
- Occupational Health and Safety (Asbestos) Regulations 2003, 2005
- Victorian Occupational Health and Safety Regulations 2017;
- State Environment Protection Policy (SEPP), *Prevention and Management of Contamination of Land*, 2002;
- State Environment Protection Policy (SEPP), Waters, 2018;



- National Environmental Protection Council (NEPC), *National Environment Protection (Assessment of Site Contamination) Measure 1999*, May 2013, hereafter referred to as NEPC 2013;
- West Australian Department of Health, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, May 2009 (WA DoH 2009);
- Australian Standard 4482.1, Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil, Part 1: Non-volatile and Semi-volatile Compounds, 2005 (AS4482.1-2005); and
- Australian Standard 4482.2, *Guide to the Sampling and Investigation of Potentially Contaminated Soil, Part 2: Volatile Substances*, 1999.

## 5 Data Gap Review

Prensa completed a review of the following documents, most of which were not available to ERM at the time of its review:

- Beveridge Williams, Contamination Assessment Oakleigh South Primary School, Beryl Avenue, Oakleigh South, February 2000;
- Beveridge Williams, Validation Sampling and Testing, Oakleigh South Primary School, Beryl Avenue, Oakleigh, June 2002;
- Beveridge Williams, Contamination Assessment Oakleigh South Primary School, Beryl Avenue, Oakleigh South, May 2003;
- Golder Associates, *Preliminary Contamination Assessment and Cost Estimate DET site, Oakleigh South,* November 2005;
- HLA-Envirosciences, Environmental Site Assessment, Former Oakleigh South Primary School, Beryl Avenue, Oakleigh South, December 2006;
- HLA-Envirosciences, Groundwater Assessment, Former Oakleigh South Primary School, Beryl Avenue, Oakleigh South, January 2007;
- ENSR AECOM, Additional Environmental Site Assessment, Former Oakleigh South Primary School, Beryl Avenue, Oakleigh, Victoria, January 2008;
- Prensa, Phase 1 Preliminary Environmental Site Assessment, Former Oakleigh South Primary School, Oakleigh South VIC 3167, August 2010;
- Prensa, Environmental Site Assessment, 1 Beryl Avenue, Oakleigh South, Victoria, August 2013;
- Prensa, *Desktop Landfill Gas Investigation, 1 Beryl Avenue, Oakleigh South, Victoria*, March 2014; and
- Prensa, *Review of Desktop Landfill Gas Investigation for 52 Golf Road, Oakleigh South, Victoria,* December 2018.

Some of these reports were commissioned by DTF. The majority of the reports were commissioned by the Department of Education and Training (DET) (also formerly known as the Department of Education, Employment, and Training Facilities or the Department of Education and Early Childhood Development) and were provided to Prensa during the divestment process facilitated by DTF.

DTF was contacted by Prensa on 29 November 2018 and consent was provided by DTF on 4 December 2018 for use of the reports by the current owner, Golf Road Project Development.

It is noted that Prensa has not completed a comprehensive review of all available reports. The focus of this data gap analysis is to address the data gaps specifically identified by ERM (2016).



### 5.1 Extent and quality of shallow fill

#### 5.1.1 Beveridge Williams (2000 and 2003)

Beveridge Williams completed a contamination assessment at the Site in 2003, which included establishment of twenty-two (22) gridded boreholes (BH02-05 to BH02-26), with soil samples collected throughout the soil profile. A site plan depicting the sampling locations has been attached to this report **(Attachment B).** The figure also identifies four (4) boreholes (BH1 to BH4) previously established by Beveridge Williams in 2000.

Borehole logs indicate that the boreholes were established to variable depths from 0.2 to 1.5 m. Fill was identified at five (5) boreholes to a maximum depth of 0.4 m. The remaining boreholes comprised either natural or 'disturbed natural' from surface.

The boreholes generally comprised grey-brown silty sand or sandy silt, fine to medium, transitioning to silty or sandy clay at approximately 0.75 m. Red brick fragments were identified near surface in BH02-5 and BH02-12. Several boreholes contained quartz gravels or basalt chips in the near surface soils. The remaining boreholes did not identify foreign inclusions. No odours or staining were identified. Photoionisation detector (PID) readings ranged from 0.0 ppm to 1.0 ppm. The borehole logs have been attached to this report **(Attachment A and B)**.

From the twenty-six (26) boreholes, forty-seven (47) samples were analysed, with at least one nearsurface sample analysed from each borehole (0-0.2 m). The samples were analysed for the following:

- All samples were analysed for metals;
- Eighteen (18) near-surface and four (4) deeper samples were analysed for organochlorine pesticides (OCPs);
- Nine (9) samples were analysed for polycyclic aromatic hydrocarbons (PAH);
- Ten (10) samples were analysed for total petroleum hydrocarbons (TPH);
- Eight (8) samples were analysed for inorganics (cyanide, fluoride, sulfate), phenols, benzene, toluene, ethylbenzene, xylenes (BTEX), volatile organics, chlorinated hydrocarbons, and polychlorinated hydrocarbons.

The soil analytical results indicated that the contaminant concentrations were less than the adopted investigation levels, with the exception of a number of samples that reported elevated concentrations of nickel, copper, zinc and arsenic that exceeded the adopted ecological investigation levels (EILs), however these concentrations did not exceed the adopted NEPM A health investigation levels (HILs) (1999). The results tables from the assessments have been attached to this report **(Attachment A and B)**.

#### 5.1.2 HLA 2006

HLA completed an environmental site assessment at the Site in 2006. It is noted that Prensa only had access to the body of the report and limited attachments (one (1) figure and bore logs only). The assessment included excavation of 17 test-pits across the site, to target previously identified fill and to target two (2) former UST pits. A site plan depicting the sampling locations has been attached to this report **(Attachment C)**.



Fill was encountered to depths of 0.4 m to 0.9m bgl in the west, central and southern areas of the site. Fill consisted of 'reworked natural' (silty sand and sandy clay) containing varying amounts of gravel, basalt fragments, brick fragments, and concrete. PID results were not recorded on the test pit logs. The test pit logs have been attached to this report **(Attachment C)**.

Ten (10) primary samples were selectively analysed for metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury), TPH, BTEX, PAH, OCPs and organophosphorous pesticides (OPPs). All reported concentrations were below the relevant objectives for ecosystems (NEPM EIL) and human health in a standard residential setting (NEPM HIL A (1999)).

HLA concluded that the presence of gravel, basalt fragments, brick fragments and other debris in fill may affect the aesthetic amenity of the soil in the context of a residential setting.

### 5.1.3 ENSR AECOM 2008

ENSR AECOM completed an *Additional Environmental Site Assessment* for the Site in 2008. The assessment included a site history review, targeted soil sampling (from the former UST pits) and groundwater sampling. The report noted that asbestos cement sheeting debris was previously identified in the surface soil surrounding the areas that comprised the former site buildings and in stockpiles of brick and building rubble at the site (in HLA 2006). A contractor was engaged to remove the asbestos cement sheeting and clearance certificate was issued. ENSR AECOM recommended that an asbestos management plan be developed for the Site.

#### 5.1.4 Review Discussion

#### Sampling Density

Based on AS4482.1-2005, the minimum sampling points required for site characterisation based on detection of circular hotspots using square grid for a site of this size (2.02 ha) is thirty-one (31). The sampling density employed at the Site included at least twenty-six (26) boreholes and seventeen (17) test-pits, which meets the required number of sampling locations. However, these were established in two (2) separate assessments, and many of the sample locations were in close vicinity to each other, whereby the sampling locations are not representative of a grid across the Site. Nevertheless, based on the historical use of the Site (as primary school), and targeted sampling completed around potentially contaminating features (former underground storage tanks), which was addressed separately in Prensa's 2013 assessment, the sampling density is considered appropriate to provide an indication of the potential for contamination at this Site.

#### Analytical Results

It is noted that both the Beveridge Williams (2000 and 2003) and the HLA (2006) assessments compared the analytical results to the now superseded NEPC 1999. Where possible, Prensa compared the analytical results to the current NEPC 2013 investigation levels. The soil analytical results from the Beveridge Williams (2000 and 2003) assessments indicated that the contaminant concentrations were less than the adopted human health investigation levels for low-density residential setting. The analytical results table and laboratory certificates from the HLA (2006) assessment were not available for review. It is noted that for the contaminants of interest at this Site (metals, TRH, PAH, and OCPs), the majority of investigation levels have remained the same or increased from NEPC 1999 to NEPC 2013, with the exception of nickel, aldrin and dieldrin, and heptachlor.



#### **Aesthetics**

Based on the borehole and test pit logs completed by Beveridge Williams (2000 and 2003) and HLA (2006), fill across the Site included gravel, basalt fragments, concrete and brick fragments and other debris. HLA indicated that the debris within the fill may affect the aesthetic amenity of the soil in the context of a residential setting. The presence of foreign materials such as gravel, basalt fragments, brick or concrete fragments, may not in itself affect the aesthetic amenity of the soil depending on size, and quantities of such materials. Additionally, soil logs completed by both Beveridge Williams (2000 and 2003) and HLA (2006) did not indicate the presence of waste within the soil profile, suggesting that the debris reported related to minor quantities.

#### <u>Asbestos</u>

ACM had been historically identified on the surface of the Site and removed (ENSR | AECOM 2008). It is noted that asbestos removal and validation at the Site was undertaken based on *Occupational Health and Safety (Asbestos) Regulations 2003*. A clearance letter for asbestos removal works was provided in the ENSR | AECOM 2008 assessment report, based on standards stipulated in *Victorian Occupational Health and Safety Regulations 2007*. It is noted that both of these regulations have now been updated (*Victorian Occupational Health and Safety Regulations 2007*. It is noted that both of these regulation, neither NEPC 2013 nor WA DOH 2009 had been released at the time of the ENSR | AECOM 2008 assessment. It is noted that WA DOH 2009 recommends test pitting as the preferred method of identification of asbestos within soils. Based on the grid-based and targeted assessments completed by Beveridge Williams (2000 and 2003), HLA (2006) and ENSR | AECOM (2008), suspected ACM was not identified within the borehole or test pit logs. The method of identification, removal and clearance, is considered generally consistent with contemporary guidance.

### 5.2 Groundwater Quality

#### 5.2.1 Lead

As noted in the Prensa 2013 report, the lead concentration reported in groundwater sampled from groundwater monitoring well, MW2A, was only slightly greater than the potable water supply criteria. Negligible concentrations of lead in groundwater were detected in samples collected from surrounding wells.

It is noted that the Site is not considered source of lead contamination due to the following:

- Concentrations of lead in grid-based soil samples collected during the Beveridge Williams (2000 and 2003) assessments ranged from <5 to 77 mg/kg, well below the HIL;
- Concentrations of lead in soil sampled during the ENSR AECOM (2008) assessment targeting the two (2) former UST pits ranged from <5 to 8.5 mg/kg;</li>
- Historical use of the Site (golf club and school) do not represent a known source of lead contamination; and
- Former USTs at the Site were understood to have contained heating oil, which is not a known source of lead.

It was noted that groundwater was unlikely to be used for drinking water due to a reticulated water supply and no existing domestic bores in the vicinity of the Site. Additionally, ERM (2016) regarded this impact as a localised impact delineated by surrounding wells. ERM acknowledged that given the reticulated supply available for the site, groundwater is unlikely to be extracted for potable supply.



#### 5.2.2 Groundwater Condition in the Western Portion

Although no groundwater bores have been installed in the western area of the Site (sports oval), based on the history review, and findings of the soil assessment works, sources of contamination were not identified in this area of the Site that would warrant a groundwater assessment.

### 5.3 Status of Landfill Gas Risk Assessment

The Desktop Landfill Gas Investigation (Prensa 2014) was not available for review by ERM.

Prensa recently reviewed this document as reported in *Review of Desktop Landfill Gas Investigation for 52 Golf Road, Oakleigh South, Victoria* (Prensa 2018). Prensa concluded in the review that the risk of landfill gas migration occurring and causing an unacceptable human health or environmental impact on the proposed residential development at 52 Golf Road, Oakleigh South, is low.

### 6 Conclusions and Recommendations

Based on soil logs provided within previous environmental assessment reports, ACM has not been identified within fill at the Site. Prensa acknowledges that the presence of underground ACM piping has not been investigated at the Site. This type of infrastructure would normally be identified (if present) and removed during early works at the Site. Should such infrastructure, or ACM within fill, be identified during development works, reference should be made to the SMDP plan developed for the Site.

HLA indicated that the debris within the fill may affect the aesthetic amenity of the soil in the context of a residential setting. Based on soil logs completed for the Site, debris reported within fill was not indicative of quantities that would preclude the aesthetic beneficial use in a low-density residential land use setting. It is recommended that during early works completed for the development that cognisance be given to quantities of debris encountered in the fill and managed accordingly.

Further groundwater monitoring at the Site is not considered necessary based on the history of the Site and in the context of the proposed residential land use with reticulated water supply available in the area.

Prensa (2018) considers that the risk of landfill gas migration occurring and causing an unacceptable human health or environmental impact on the proposed residential development at 52 Golf Road, Oakleigh South, is low.



## 7 Closing

Should you have any questions or queries regarding the report, please do not hesitate to contact me on (03) 9508 0100.

Yours sincerely,

Hof

Rachael Hofmann Senior Environmental Consultant Prensa Pty Ltd

### Attachments

- Statement of Limitations
- Attachment A Beveridge Williams 2000 (Bore Logs, Results Table, Laboratory Reports)
- Attachment B Beveridge Williams 2003 (Figure, Bore Logs, Results Table, Laboratory Reports)
- Attachment C HLA 2006 (Figure, Test Pit Logs)



## **Statement of Limitations**

This document has been prepared in response to specific instructions from Golf Road Project Development Pty Ltd to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards, practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by Golf Road Project Development Pty Ltd and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advise that the report should only be relied upon by Golf Road Project Development Pty Ltd and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

#### Sampling Risks

Prensa acknowledges that any scientifically designed sampling program cannot guarantee all sub-surface contamination will be detected. Sampling programs are designed based on known or suspected site conditions and the extent and nature of the sampling and analytical programs will be designed to achieve a level of confidence in the detection of known or suspected subsurface contamination. The sampling and analytical programs adopted will be those that maximises the probability of identifying contaminants. Golf Road Project Development Pty Ltd must therefore accept a level of risk associated with the possible failure to detect certain sub-surface contamination where the sampling and analytical program misses such contamination. Prensa will detail the nature and extent of the sampling and analytical program used in the investigation in the investigation report provided.

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Soil contamination can be expected to be non-homogeneous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where contamination has occurred. In addition, the migration of contaminants through groundwater and soils may follow preferential pathways, such as areas of higher permeability, which may not be intersected by sampling events. Subsurface conditions including contaminant concentrations can also change over time. For this reason, the results should be regarded as representative only.

Golf Road Project Development Pty Ltd recognises that sampling of subsurface conditions may result in some cross contamination. All care will be taken and the industry standards used to minimise the risk of such cross contamination occurring, however, Golf Road Project Development Pty Ltd recognises this risk and waives any claims against Prensa and agrees to defend, indemnify and hold Prensa harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

#### **Reliance on Information Provided by Others**

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information. Golf Road Project Development Pty Ltd therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

#### **Recommendations for Further Study**

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Golf Road Project Development Pty Ltd and Prensa recognises that that Golf Road Project Development Pty Ltd will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Golf Road Project Development Pty Ltd not accepting the recommendations made within this report.



# Attachment A: Beveridge Williams 2000

- Bore Logs
- Results Table
- Laboratory Reports

Beveridge Williams & Co Pty Ltd	borehole no	BH1
Engineering Log	sheet no	1 of 1
Borehole	job no	D8610

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client:	Department of Education, Employment and Training Facilities	logged by:	AS
project:	Contamination Assessment	checked:	JE
location:	Oakleigh South Primary School, Beryl Avenue, Oakleigh South	date:	21/12/99

hole dia	meter : 65mm	bearing	datum	
		a bia a mana di a mana		
aepth	material description	observations		sample details
		Background PID 0	.6ppm	
	SILTY SAND (SM) Grey brown, fine to	FILL	PID 0.6ppm	#01 D
-	medium, moist, contains crushed rock.			CR=0
0.25				
0.23				
-				
· · ·				
ŌE	SILTY SAND (SM) Grey brown, fine to	MATURAL		
0.5	medium, moist.	MATERIAL	PID 0.6ppm	#02 D
5				CR=0
				1
0.75				
0.75				-
				-
10				
1.0	Borehole BH1 terminated at 1.0m			
5				
1.25				
-				
i.5				
30 - C				
i.75				
ф.,				
2.0		1. 2. 6. 2. 6. 6. 6.		

Beve	ridge Williams & Co Pty Ltd	borehole no	BH2	
Engin	eering Log	sheet no	1 of 1	
Boreh	ole	job no	D8610	
client:	Department of Education, Employment and Training Facilities	logged by:	AS	
project:	Contamination Assessment	checked:	JE	

project:	Contamination Assessment	checked:	JE
location:	Oakleigh South Primary School, Beryl Avenue, Oakleigh South	date:	21/12/99

- 1 1

drill moo hole diai	del : Hand Auger meter : 65mm	slope 90° bearing	RL surface datum	not measured
		<u> </u>		
depth m	material description	observations		sample details
		Background PID 0.	6ppm	
	SILTY SAND (SM) Grey brown, fine to medium, moist.	MATERIAL	PID 0.6ppm	#03 D CR=0
-				
0.25				
5				
÷.				
0.5			PID 0 6ppm	#04 D
			TID 0.0ppm	CR=0
5 75				
<u></u>				
2				
				C
i.0				
	Borehole BH2 terminated at 1.0m			
6				
÷				
.25				4.1
0.1				
5				
.75				
.0		1.2.2.2.2.2.2		

Beveridge Williams & Co Pty Ltd	borehole no	BH3	
Engineering Log	sheet no	1 of 1	
Borehole	job no	D8610	

client:	Department of Education, Employment and Training Facilities	logged by:	AS	
project:	Contamination Assessment	checked:	JE	
location:	Oakleigh South Primary School, Beryl Avenue, Oakleigh South	date:	21/12/99	

hole dia	neter : 65mm	slope 90° bearing	RL surface datum	not measured
depth m	material description	observations		sample details
		Background PID 0.	6ppm	
	SILTY SAND (SM) Grey brown, brown and cream, fine to medium, moist.	I DISTURBED NATURAL MATERIAL	PID 0.6ppm	#05 D CR=0
0.25	SILTY SAND (SM) Gray brown fine to	NATURAL		
.5	medium, moist.	MATERIAL		-
			PID 0.6ppm	#06 D CR=0
.75				
				() = 1000
.0				1.00
	Borehole BH3 terminated at 1.0m			
.25				
5				
75				
0				

Beve	Beveridge Williams & Co Pty Ltd		BH4	
Engin	Engineering Log		1 of 1	
Boreh	ole	job no	D8610	
client:	Department of Education, Employment and Training Facilities	logged by:	AS	
project:	Contamination Assessment	checked:	JE	

bearing

project: Contamination Assessment check location: Oakleigh South Primary School, Beryl Avenue, Oakleigh South date:

18

drill model :

hole diameter :

Hand Auger 65mm

ry School, Beryl Avenue, Oakleigh South	date:	21/12/99
slope 90°	RL surface	not measured

datum

depth	material description	observations		sample details
n		Background PID 0 600m		
	SILTY SAND (SM) Grev brown, fine to	NATURAL PID	0.6ppm	#07 D
	medium, moist.	MATERIAL	o.oppm	CR=0
				1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -
25				
25				
_		-		
5		חופ	0.6000	#08 D
			o.oppm	CR=0
				- 10
/5				-
				(A)
)	Borehole BH4 terminated at 1 0m			C Church
	borenote bitt terminated at 1.0m			
-				
25				
		1		
,				
15				
A	07	OAD 401 Work Instruction 20	1	

### Table 1 Results of Chemical Testing

Client: Department of Education, Employment and Training Facilities Location: Oakleigh South Primary School, Beryl Avenue, Oakleigh South

-				Inorg	ganics (mg/	/kg)		14.000				Heavy	Metals (n	ng/kg)										
				Cyanide	Fluoride	Phenols	Sulphate	Arsenic As	Barium Ba	Beryllium Be	Boron B	Cadmium Cd	Cobalt	Chromium	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Antimony	Tin	Selenium	Zinc
ANZECC/N	HMRC Environ	nmental Inv	estigation Guidelines		1.		2000	20	1	17.5	1	3		50	60	1 200	500	ng	IVIO	NI	SD	Sn	Se	Zn
Dutch B				50	400	1	-900	30	400	-	-	5	50	250	100	300	500	1	-	60	20	50		200
EPAV Clea	n Fill Criteria	1.1.1.1		50	450	1		30			-	5	50	250	100	150		2	10	100		50		500
EPAV Low	Level Contami	nated Soil C	riteria	500	4500	10		300			-	50	500	2500	100	300		2	40	100		50	10	500
NEHF Expo	osure Setting 'A'	- Residenti	al (Standard)	500	1000	8500		100	-	20	2000	20	500	2500	1000	3000		20	400	1000		500	100	5000
NEHF Expo	osure Setting 'D'	- Residenti	al (Medium Density)	2000	-	3/000		400	-	20	12000	20	100		1000	300	1500	15		600	1			7000
NEHF Expo	sure Setting 'E'	- Open Spa	P	1000		17000		200	1	40	12000	80	400		4000	1200	6000	60		2400				28000
NEHF Expo	sure Setting 'F'	- Commerc	al/Industrial	2500		12500		200	-	40	6000	40	200		2000	600	3000	30		600				14000
Adopted Cr	itoria	Commerc	annidustriat	2500	1 100	42300		500	-	100	15000	100	500	1	5000	1500	7500	75		3000				35000
Trated of		1		50	400	1	2000	20	400	20	3000	3	50	50	60	300	500	1	40	60	20	50	10	200
Location	Depth (m)	Sample Number	Material Description		-											Ē	1016							
BH1	0.0-0.4m		1 FILL - Silty Sand	<5	<5	0.1	<10	<5	14	<5	<5	<02	15	8	6	15	24	-0.05		-		-		
BH1	0.5-1.0m		2 SILTY SAND	<5	<5	<0.1	<10	46	35	<5	<5	<0.2	12	10	7	10	110	<0.05	<5	<5	<5	<5	<5	35
BH2	0.0-0.5m		3 SILTY SAND	<5	<5	<0.1	33	<5	12	<5	<5	<0.2	10	- 10	-5	19	25	0.00	<5	1	<5	<5	<5	61
BH2	0.5-1.0m		4 SILTY SAND	<5	<5	<0.1	41	<5	7	<5	15	<0.2	15	-5	<5	14	35	<0.05	<5	<5	<5	<5	<5	19
BH3	0.0-0.4m		5 FILL - Silty Sand	<5	<5	0.2	19	<5	17	<5	15	<0.2	15	6	7	20	10	<0.05	<5	<5	<5	<5	<5	6
BH3	0.5-1.0m	11	6 SILTY SAND	<5	<5	<01	18	-5	11	-5	-5	-0.2		0		19	31	0.06	<5	<5	<5	<5	<5	56
BH4	0.0-0.5m		7 SILTY SAND	<5	<5	<01	<10	-5	16	-5	15	-0.2	< 5	0	<>	<5	12	<0.05	<5	<5	<5	<5	<5	8
BH4	0.5-1.0m		8 SILTY SAND	<5	<5	<0.1	<10	<5	6	<5	<5	<0.2	<5	<5	<5	<5	33	0.59	<5	<5	<5	<5	<5	35

46 Denotes concentrations exceeds the adopted criteria

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Page 1 of 2 Ref No D8610

### Table 1 Results of Chemical Testing

#### Client: Department of Education, Employment and Training Facilities Location: Oakleigh South Primary School, Beryl Avenue, Oakleigh South

Page 2 of 2 Ref No D8610

				pН	-	Organics (mg/kg) al Petroleum Hydrocarbons Monocyclic Aromatic Hydrocarbons Polycyclic Aromatic Organochlorine Pesticides Volatile Chlorinated Polychle															
					Total Pe	troleum !	Hydrocar	bons		Monocy	alic Arom	natic Hydro	carbons	Polycyclic .	Aromatic	Organochlo	rine Pesticides	1	Volatile	Chlorinated	Polychlorinated
					C6-C9	C10-C14	C15-C28	C29-C36	>C9	Benzene	Toluene	Ethyl	Xylenes	Hydrocarbo	ons	Aldrin +	DDT + DDD	Total OC	Organics	Hydrocarbons	Binhenvis
						1.1		1.1.1.1	12.5		1	Benzene		Total PAH	B(a)p	Dieldrin	+ DDE	Pesticides	o Bannes	inguiocarbons	Dipiteliyis
ANZECC/	<b>VHMRC</b> Enviror	nmental Inves	tigation Guidelines		·	Th	1		· · · · · · · · ·	1	1	1		-	1 1			1 concruca	-		
Dutch B				1	1		1000	1		0.5	3	5	5	20	1			1	-	-	
EPA Clean	Fill Criteria				100	1.	1		1000			1		20		-		1	-		2
EPA Low I	.evel Contamina	ated Soil Crite	ria		1000		11.00	1.1.1	10000	1			1	200		1		10			
NEHF Exp	osure Setting 'A'	- Residential	(Standard)		1	1					1		1	20	1	10	200	10			
NEHF Exp	osure Setting 'D'	- Residential	(Medium Density)	1			20.00	1000	1				-	80	1	10	200				
NEHF Exp	osure Setting 'E'	- Open Space		1		1	1	1.00		1				40	2	20	400		-		
NEHF Exp	osure Setting 'F	- Commercial	/Industrial									1	-	100	5	50	1000				
Adopted Ci	riteria				100	T	1	1	1000	1	3	1 5	5	20	1 1	10	200	1 1		-	
Individual	Samples				T			1			<u> </u>			1 20	-	10	200	1			2
Location	Depth (m)	Sample Number	Material Description			1		17							1.1					1 1	1.1.1.2
BH1	0.0-0.4m		1 FILL - Silty Sand	5.8	<20	<20	<50	<50	<120	< 0.5	<0.5	<0.5	<0.5	-1	<01	-01	-0.15	1	-0.5	0.5	
BH1	0.5-1.0m		2 SILTY SAND	6.1	<20	<20	<50	<50	<120	< 0.5	<0.5	<0.5	<0.5	4	0.4	<0.1	<0.15	<1	<0.5	<0.5	<1
BH2	0.0-0.5m		3 SILTY SAND	5.6	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5	1	<0.1	<0.1	<0.15	<1	<0.5	<0.5	<1
BH2	0.5-1.0m		4 SILTY SAND	5.8	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5	1	<0.1	<0.1	<0.15	<1	<0.5	<0.5	<1
BH3	0.0-0.4m	1	5 FILL - Silty Sand	6.2	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5		<0.1	<0.1	<0.15	<1	<0.5	<0.5	<1
BH3	0.5-1.0m	1	6 SILTY SAND	5.7	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5		<0.1	<0.1	<0.15	<1	<0.5	<0.5	<1
BH4	0.0-0.5m	4	7 SILTY SAND	5.6	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5		<0.1	<0.1	<0.15	<1	<0.5	<0.5	<1
BH4	0.5-1.0m	1	8 SILTY SAND	4.9	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5		<0.1	<0.15	<0.15	<1	<0.5	<0.5	<1
0114	10.5-1.011		6 SILTI SAND	4.9	<20	<20	<50	<50	<120	<0.5	<0.5	<0.5	<0.5	<1	<0.1	<0.1	<0.15	<1	< 0.5	< 0.5	<1

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VW:dh:15319

4 January, 2000

Beveridge Williams & Co. Pty Ltd 1075 High Street ARMADALE VIC 3143

#### Job No : D8610 Re : Oakleigh South Primary School Soil Samples

Attention: Mr I. McKenzie

#### **Certificate of Analysis**

WSL Report No: 265917

Date Sampled: 21.12.99 Received by WSL Consultants: 23.12.99 Instructions were received: 23.12.99 Analyses were commenced: 23.12.99

The sample(s) referred to in this report were analysed by the following methods:

Analyte(s) Method pH WSL 062 Metals WSL 023A & 032 TPH WSL 030 MAH WSL 3810B Phenols (Total) APHA 5530 C Fluoride WSL 077

Analyte(s)	Method
Cyanide	APHA 4500-CN,E&C
Sulphate	WSL 076
PAH	WSL 8100B
OCP/PCB	WSL 8080B
Chlorinated Hydrocarbons	WSL 8120
Volatile Halogenated Organics	WSL3810A,B

Results pertain to samples as received. Details of this report were faxed on 4.1.2000.

Yours faithfully, WSL Consultants Pty Ltd

ns

Director of Opemical Technology



This Laboratory is accredited by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with its terms of accreditation. This document shall not be reproduced except in full.

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A NATA Accredited Laboratory An Approved Quarantine Premises An Approved EPA Auditor & Analyst





## **WSL**Consultants Enviroscience



Date : 4-Jan-2000

WSL Report WSL JobNum	No: 265917 ber: 15319	Client: BEVE	RIDGE WILLIAMS	Job Reference	: D8610 -	OAKLEI	GH STH F	RIMARY	SCHOOL	3												
LAB NUM	Received	Sample	BH No./Depth (m)	pH	As	в	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Мо	Ni	Рb	Sb	Se	Sn	Zn	
265917	23-Dec-1999	01	BH1 0-0.4	5.8	<5	<5	14	<5	<0.2	<5	8	6	<0.05	34	<5	<5	15	<5	<5	<5	35	
265918	23-Dec-1999	02	BH1 0.5-1.0	6.1	46	<5	35	<5	<0.2	12	10	7	0.06	110	<5	7	19	<5	<5	<5	61	
265919	23-Dec-1999	03	BH2 0-0.5	5.6	<5	<5	12	<5	<0.2	<5	<5	<5	<0.05	35	<5	<5	14	<5	<5	<5	19	
265920	23-Dec-1999	04	BH2 0.5-1.0	5.8	<5	<5	7	<5	<0.2	<5	<5	<5	<0.05	10	<5	<5	20	<5	<5	<5	6	
265921	23-Dec-1999	05	BH3 0-0.4	6.2	<5	<5	17	<5	<0.2	<5	6	7	0.06	31	<5	<5	19	<5	<5	<5	56	
265922	23-Dec-1999	06	BH3 0.5-1.0	5.7	<5	<5	11	<5	<0.2	<5	6	<5	<0.05	12	<5	<5	<5	<5	<5	<5	8	
265923	23-Dec-1999	07	BH4 0-0.5	5.6	<5	<5	16	<5	<0.2	<5	:5	6	0.59	33	<5	<5	15	<5	<5	<5	35	
265924	23-Dec-1999	08	BH4 0.5-1.0	4.9	<5	<5	6	<5	<0.2	<5	×:5	<5	0.27	7	<5	<5	<5	<5	<5	<5	8	

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Date : 4-Jan WSL Report WSL JobNum	-2000 No: 265917 ber: 15319	Client: BEV	'ERIDGE WILLIAMS	Job Ref	erence: D80	510 - OAKI	LEIGH STH	I PRIMARY	SCHOOL									
LAB NUM	Received	Sample	BH No./Depth (m)	ТРН С6-С9	ТРН С10-С14	ТРН C15-C28	ТРН С29-С36	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	STYRENE	CUMENE	1 2 4-TRI- METHYL BENZENE	TOTAL PHENOLS	FLUORIDE	CYANIDE	SULPHATE
265917	23-Dec-1999	01	BH1 0-0.4	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0,1	<5	<5	<10
265918	23-Dec-1999	02	BH1 0.5-1.0	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	<10
265919	23-Dec-1999	03	BH2 0-0.5	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	33
265920	23-Dec-1999	04	BH2 0.5-1.0	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	41
265921	23-Dec-1999	05	BH3 0-0.4	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<5	<5	19
265922	23-Dec-1999	06	ВНЗ 0.5-1.0	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	18
265923	23-Dec-1999	07	BH4 0-0.5	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	<10
265924	23-Dec-1999	08	BH4 0.5-1.0	<20	<20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<5	<5	<10

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TOTAL PAH

<1

4

<1

<1

<1

 $\leq 1$ 

<1

<1

Date : 4-Jan-2000 WSL Report No: 265917 WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL LAB NUM Received Sample BH No./Depth (m) NAP ACY ACE FLU PHE ANT FLA PYR BAA CHR BBF BKF BAP DBA BGP IPY 265917 23-Dec-1999 01 BHI 0-0,4 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 265918 23-Dec-1999 02 BH1 0.5-1.0 <0.1 <0,1 <0.1 <0.1 0.2 <0.1 0.6 0.7 0.3 0.3 0.3 0.3 0.4 <0.1 0.3 0.3 265919 23-Dec-1999 03 BH2 0-0.5 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <:0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 265920 23-Dec-1999 04 BH2 0.5-1.0 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0,1 <0.1 <0.1 <0.1 <0.1 265921 23-Dec-1999 05 BH3 0-0.4 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 265922 23-Dec-1999 06 BH3 0.5-1.0 <0.1 <0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 265923 23-Dec-1999 07 BH4 0-0.5 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 265924 23-Dec-1999 08 BH4 0.5-1.0 <0.1 <0.1 <0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 < 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1





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#### Date : 4-Jan-2000 WSL Report No: 265917 WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL LAB NUM Received Sample BH No./Depth (m) HCB a-BHC LINDANE HEPTACHLOR ALDRIN b-BHC d-BHC HEPTACHLOR-DDE DIELDRIN EPOXIDE 265917 23-Dec-1999 01 BH1 0-0.4 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 <0.05 < 0.05 265918 23-Dec-1999 02 BH1 0.5-1.0 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 < 0.05 <0.05 < 0.05 265919 23-Dec-1999 03 BH2 0-0.5 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 265920 23-Dec-1999 04 BH2 0.5-1.0 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 265921 23-Dec-1999 05 BH3 0-0.4 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 < 0.05 <0.05 265922 23-Dec-1999 06 BH3 0.5-1.0 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 < 0.05 265923 23-Dec-1999 07 BH4 0-0.5 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 0.08 265924 23-Dec-1999 08 BH4 0.5-1.0 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 < 0.05 <0.05 < 0.05 < 0.05

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Date : 4-Jan- WSL Report 1 WSL JobNum	2000 No: <b>265917</b> ber: 15319	Client: BEV	ERIDGE WILLIAMS	Job Reference: [	08610 - OA	KLEIGH ST	H PRIMARY SCHOO	L				
LAB NUM	Received	Sample	BH No./Depth (m)	DDD	DDT	ENDRIN	METHOXYCHLOR	CHLORDANE	a-ENDO- SULPHAN	b-ENDO- SULPHAN	ENDOSULPHAN SULPHATE	ENDRIN ALDEHYDE
265917	23-Dec-1999	01	BH1 0-0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265918	23-Dec-1999	02	BH1 0.5-1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265919	23-Dec-1999	03	BH2 0-0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265920	23-Dec-1999	04	BH2 0.5-1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265921	23-Dec-1999	05	BH3 0-0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265922	23-Dec-1999	06	BH3 0.5-1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265923	23-Dec-1999	07	BH4 0-0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
265924	23-Dec-1999	08	BH4 0.5-1.0	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

A blank space indicates no test performed

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Results expressed as mg/kg dry weight

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#### Date : 4-Jan-2000

WSL Report No: 265917

Enviroscience

WSL JobNumber	: 15319	Client: BEVER	UDGE WILLIAMS	Job Reference: D8610 - OAKL	EIGH STH PRIN	MARY SCHOOL					
LAB NUM	Received	Sample	BH No./Depth (m)	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	TOTAL PCBs
265917	23-Dec-199	9 01	BH1 0-0.4	<0.1	<0,1	<0,1	<0.1	<0.1	<0.1	<0.1	<1
265918	23-Dec-199	9 02	BH1 0.5-1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
265919	23-Dec-199	9 03	BH2 0-0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
265920	23-Dec-199	9 04	BH2 0.5-1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
265921	23-Dec-199	9 05	ВНЗ 0-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<]
265922	23-Dec-199	9 06	BH3 0.5-1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
265923	23-Dec-199	9 07	BH4 0-0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
265924	23-Dec-199	9 08	BH4 0.5-1.0	<0.1	<0.1	<0.1	<0.1	<01	<01	<0.1	<1

A blank space indicates no test performed

Results expressed as mg/kg dry weight

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Date : 4-Jan-2000

WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

WSL JobNumbe	r: 15319 Clie	ent: BEVERID	GE WILLIAMS J	ob Reference: D	8610 - OAKLEIG	GH STH PRIMA	RY SCHOOL						
LAB NUM	Received	Sample	BH No./Depth (m)	l I-DI CHLORO ETHANE	DI CHLORO METHANE	TRI CHLORO METHANE	I 2-DI CHLORO ETHANE	BROMO DICHLORO METHANE	CHLORO BENZENE	l l 2-tri Chloro Ethane	CHLORO DIBROMO METHANE	l 2-DI CHLORO PROPANE	111-TRI CHLORO ETHANE
265917	23-Dec-1999	01	BH1 0-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265918	23-Dec-1999	02	BH1 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265919	23-Dec-1999	03	BH2 0-0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265920	23-Dec-1999	04	BH2 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265921	23-Dec-1999	05	BH3 0-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265922	23-Dec-1999	06	ВНЗ 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265923	23-Dec-1999	07	BH4 0-0,5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265924	23-Dec-1999	08	BH4 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

A blank space indicates no test performed





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#### Date : 4-Jan-2000

WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Received	Sample	BH No./Depth	BENZAL CHLORIDE	BENZOTRI CHLORIDE	2 CHLORO NAPTHALENE	HEXA- CHLORO BUTADIENE	HEXACHLORO CYCLO PENTADIENE	HEXA- CHLORO ETHANE	PENTA- CHLORO BENZENE	1 2-DI CHLORO BENZENE	1 3-DI CHLORO BENZENE	1 4-DI CHLORO BENZENE
265917	23-Dec-1999	01	BH1 0-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265918	23-Dec-1999	02	BH1 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265919	23-Dec-1999	03	BH2 0-0.5	<0.5	<0.5	<0,5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265920	23-Dec-1999	04	BH2 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265921	23-Dec-1999	05	BH3 0-0.4	<0.5	<0.5	<0.5	<0.5	<0,5	<0.5	<0.5	<0.5	<0.5	<0.5
265922	23-Dec-1999	06	BH3 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0,5	<0.5	<0.5	<0.5	<0.5	<0.5
265923	23-Dec-1999	07	BH4 0-0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265924	23-Dec-1999	08	BH4 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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#### Date : 4-Jan-2000

WSL Report No: 265917 ......

Enviroscience

WSL JODNumbe	er: 15319 C	lient: BEVER	IDGE WILLIAMS	Job Reference: D8610 - OAKLE	GH STH PRIMARY	SCHOOL			
LAB NUM	Received	Sample	BH No./Depth (m)	1 2 3-TRI CHLORO BENZENE	l 2 4-TRI CHLORO BENZENE	1 3 5-TRI CHLORO BENZENE	1 2 3 4-TETRA CHLORO BENZENE	1 2 3 5-TETRA CHLORO BENZENE	I 2 4 5-TETRA CHLORO BENZENE
265917	23-Dec-1999	01	BH1 0-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265918	23-Dec-1999	02	BH1 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265919	23-Dec-1999	03	BH2 0-0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265920	23-Dec-1999	04	BH2 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265921	23-Dec-1999	05	BH3 0-0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265922	23-Dec-1999	06	BH3 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265923	23-Dec-1999	07	BH4 0-0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
265924	23-Dec-1999	08	BH4 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

A blank space indicates no test performed



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## **QUALITY ASSURANCE REPORT**

Date: 4-Jan WSL Report	2000 No: 265917																				
WSL JobNum	iber: 15319	Client: BEVE	ERIDGE WILLIAMS	Job Reference	: D8610	- OAKLEI	GH STH I	PRIMARY	SCHOOL	2											
LAB NUM	Reference	Sample	BH No./Depth (m)	pH	As	в	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Мо	Ni	РЬ	Sb	Se	Sn	Zn
266135	23-Dec-1999	BLANK			<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	<5	<5	<5	<5	<5	<5	<5	<5
266119	(Duplicate of 26	5922)		56																	
265922	23-Dec-1999	06	BH3 0.5-1.0	5.7																	
% RPD				1.8																	
266133	(Duplicate of 26	5917)			<5	<5	14	<5	<0.2	<5	7	5	-0.05	25	15	عد	17				**
265917	23-Dec-1999	01	BH1 0-0.4		<5	<5	14	<5	<0.2	<5	8	6	<0.05	34	-5	~5	1/	<5	< 2	<5	34
% RPD					0	0	0	0	0	0	13.3	18.2	0	2.9	0	0	12.5	0	<5	<5	2.9
266134	(Spike of 26591)	7)			96	84	98	87	89	84	93	90	0.84	120	85	88	100	70	01	80	120
Expected					84	85	94	80	80	82	88	86	0.80	110	80	84	05	80	20	80	120
% Recovery					114	98.8	105	109	111	102	106	105	105	113	106	105	106	08.8	114	111	110
265917	23-Dec-1999	01	BH1 0-0.4		<5	<5	14	<5	<0.2	<5	8	6	<0.05	34	<5	<5	15	<5	<5	<5	35

A blank space indicates no test performed

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## **QUALITY ASSURANCE REPORT**

WSL Report	No: 265917																	
WSL JobNum	ber: 15319	Client: BEVI	ERIDGE WILLIAMS	Job Ref	erence: D8	510 - OAKJ	LEIGH STH	I PRIMARY	SCHOOL									
LAB NUM	Reference	Sample	BH No./Depth (m)	ТРН С6-С9	ТРН C10-C14	ТРН C15-C28	ТРН C29-C36	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	STYRENE	CUMENE	1 2 4-TRI- METHYL BENZENE	TOTAL PHENOLS	FLUORIDE	CYANIDE	SULPHATE
266087	23-Dec-1999	BLANK						<0.5	<0.5	<0,5	<0.5	<0.5	<0.5	<0,5	<0.1	<5	<5	~10
266092	23-Dec-1999	BLANK		<20	<20	<50	<50											
266119 265922 % RPD	(Duplicate of 2 23-Dec-1999	265922) 06	BH3 0.5-1.0													<5 <5 0		
266184 265919 % RPD	(Duplicate of 2 23-Dec-1999	2 <i>65919)</i> 03	BH2 0-0.5					<0.5 <0.5 0	<0.5 <0.5 0	<0.5 <0.5 0	<0.5 <0.5 0	<0.5 <0.5 0	<0.5 <0.5 0	<0.5 <0.5 0				
266190 265918 % RPD	(Duplicate of 2 23-Dec-1999	2 <i>65918)</i> 02	BH1 0.5-1.0	<20 <20 0	<20 <20 0	<50 <50 0	<50 <50 0											
266088 Expected % Recovery 266087	(Spike of 26608 23-Dec-1999	87) QC SPIKE													9.8 10 98.0 <0.1	99 100 99.0 <5	1 1 100 <5	
266183 Expected % Recovery 265918	(Spike of 2659) 23-Dec-1999	<i>18)</i> 02	BH105-10					3.9 4.0 97.5 <0.5	3.7 4.0 92.5 ≤0.5	3.7 4.0 92.5	12 12 100	3,3 4.0 82.5	3.7 4.0 92.5	3.7 4.0 92.5				
266191 Expected % Recovery 265922	(Spike of 2659) 23-Dec-1999	22) 06	внз 0.5-1.0			370 350 106 <50		-0.5	-0.3	~0.3	-0.5	-0.3	~0.3	~0.3				

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Date : 4-Jan-2000

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## **QUALITY ASSURANCE REPORT**

Date : 4-Jan-2 WSL Report M	1000 No: 265917																			
WSL JobNumb	per: 15319 Cli	ent: BEVER	UDGE WILLIAMS	Job Reference:	D8610 - C	AKLEIGH	STH PRIN	IARY SCH	IOOL											
LAB NUM	Reference	Sample	BH No./Depth (m)	NAP	ACY	ACE	FLU	PHE	ANT	FLA	PYR	BAA	CHR	BBF	BKF	ВАР	DBA	BGP	IPY	TOTAL PAH
266087	23-Dec-1999	BLANK		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0,1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
266133 265917 % RPD	(Duplicate of 265) 23-Dec-1999	9 <i>17</i> ) 01	BH1 0-0,4	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0,1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<0.1 <0.1 0	<1 <1 0
266191 Expected % Recovery 265922	(Spike of 265922) 23-Dec-1999	06	BH3 0.5-1.0	1.3 1.4 92.9 <0.1	1.4 1.4 100 <0.1	1.3 1.4 92.9 <0.1	1.2 1.4 85.7 <0.1	1.5 1.4 107 <0.1	1.4 1.4 100 <0.1	1.4 1.4 100 <0.1	1.5 1.4 107 <0.1	1.4 1.4 100 <0.1	1.0 1.4 71.4 <0.1	1.0 1.4 71.4 <0.1	1.6 1.4 114 <0.1	1.2 1.4 85.7 <0.1	1.0 1.4 71.4 <0.1	1.4 1.4 100 <0.1	1.4 1.4 100 <0.1	21 22 95.5 <1

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## QUALITY ASSURANCE REPORT

Date : 4-Jan- WSL Report	2000 No: 265917												
WSL JobNum	ber: 15319	Client: BEV	ERIDGE WILLIAMS	Job Reference: I	08610 - OAKI	LEIGH STH PRIM	MARY SCHOOL						
LAB NUM	Reference	Sample	BH No./Depth (m)	HCB	a-BHC	LINDANE	HEPTACHLOR	ALDRIN	b-BHC	d-BHC	HEPTACHLOR- EPOXIDE	DDE	DIELDRIN
266087	23-Dec-1999	BLANK		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05
266133	(Duplicate of 26	5917)		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05
265917	23-Dec-1999	01	BH1 0-0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05
% RPD				0	0	0	0	0	0	0	0	0	0
266191	(Spike of 26592.	2)		2.7	2.6	2.5	1.5	1.5	2.0	29	1.5	13	14
Expected				2.8	2.8	2.8	1.4	1.4	2.8	2.8	14	14	1.4
% Recovery				96.4	92.9	89.3	107	107	71.4	104	107	07.0	100
265922	23-Dec-1999	06	BH3 0.5-1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

A blank space indicates no test performed

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Results expressed as mg/kg dry weight

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## **QUALITY ASSURANCE REPORT**

Date : 4-Jan-2 WSL Report 1	2000 No: 265917											
WSL JobNum	ber: 15319 (	Client: BEV	ERIDGE WILLIAMS	Job Reference: I	08610 - OA	KLEIGH ST	H PRIMARY SCHOO	L				
LAB NUM	Reference	Sample	BH No./Depth (m)	DDD	DDT	ENDRIN	METHOXYCHLOR	CHLORDANE	a-ENDO- SULPHAN	b-ENDO- SULPHAN	ENDOSULPHAN SULPHATE	ENDRIN ALDEHYDE
266087	23-Dec-1999	BLANK		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
266133	(Duplicate of 26	5917)		< 0.05	<0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05
265917	23-Dec-1999	01	BH1 0-0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05
% RPD				0	0	0	0	0	0	0	0	0
266191	(Spike of 265922	2)		1.2	1.0	1.3	1.0	2.8	1.3	1.4	1.0	13
Expected				1.4	1.4	1.4	1.4	2.8	1.4	14	1.4	1.5
% Recovery				85.7	71.4	92.9	71.4	100	92.9	100	71.4	97.9
265922	23-Dec-1999	06	BH3 0.5-1.0	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05

A blank space indicates no test performed

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## **QUALITY ASSURANCE REPORT**

Date : 4-Jan-2000

WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

MS Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LA	BNUM	Reference	Sample	BH No./Depth (m)	AROCLOR 1016	AROCLOR 1221	AROCLOR 1232	AROCLOR 1242	AROCLOR 1248	AROCLOR 1254	AROCLOR 1260	TOTAL PCBs
2	266087	23-Dec-1999	BLANK		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
. 2	266133	(Duplicate of 265	5917)		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0 1	<1
4	265917	23-Dec-1999	01	BH1 0-0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
0	% RPD				0	0	0	0	0	0	0	0
1	266191	(Spike of 265922)	)		2.8						23	
E	xpected				2.8						2.8	
%	Recovery				100						82.1	
3	265922	23-Dec-1999	06	BH3 0.5-1.0	<0.1						<0.1	

A blank space indicates no test performed



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## **QUALITY ASSURANCE REPORT**

Date : 4-Jan-2000

WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

Enviroscience

Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Reference	Sample	BH No./Depth (m)	I 1-DI CHLORO ETHANE	DI CHLORO METHANE	TRI CHLORO METHANE	l 2-DI CHLORO ETHANE	BROMO DICHLORO METHANE	CHLORO BENZENE	l 1 2-TRI CHLORO ETHANE	CHLORO DIBROMO METHANE	1 2-DI CHLORO PROPANE	111-TRI CHLORO ETHANE
266087	23-Dec-1999	BLANK		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
266184	(Duplicate of 26591)	9)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-0.5	-0.5
265919	23-Dec-1999	03	BH2 0-0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5
% RPD				0	0	0	0	0	0	0	0	0	0
266183	(Spike of 265918)			3.9	3.2	4.0	3.8	3.8	30	3.0	37	27	20
Expected				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
% Recovery				97.5	80.0	100	95.0	95.0	97.5	97.5	92.5	92.5	95.0
265918	23-Dec-1999	02	BH1 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5

A blank space indicates no test performed

Results expressed as mg/kg dry weight

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## **QUALITY ASSURANCE REPORT**

#### Date : 4-Jan-2000 WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

Enviroscience

Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAD NOM	Kererence	Sample	BH No./Depth	BENZAL CHLORIDE	BENZOTRI CHILORIDE	2 CHLORO NAPTHALENE	HEXA- CHLORO BUTADIENE	HEXACHLORO CYCLO PENTADIENE	HEXA- CHLORO ETHANE	PENTA- CHLORO BENZENE	l 2-DI CHLORO BENZENE	1 3-DI CHLORO BENZENE	l 4-DI CHLORO BENZENE
266087 2	23-Dec-1999	BLANK		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
266190 (D	Duplicate of 265918	)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-0.5	-0.5	20.5
265918 23-	3-Dec-1999	02	BH1 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
% RPD			2000 2000 200	0	0	0	0	0	0	0	0	0	0
266191 (Sp	Spike of 265922)			1.2	1.2	13	14	13	I.A.	1.5	12	1.2	1.5
Expected				1.4	1.4	1.4	14	1.5	1.4	1,5	1.2	1.5	1.5
% Recovery				85.7	85.7	97.9	100	97.9	100	1.4	05 7	02.0	1.4
265922 23-	3-Dec-1999	06	BH3 0.5-1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

A blank space indicates no test performed

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## **QUALITY ASSURANCE REPORT**

Date : 4-Jan-2000

WSL Report No: 265917

WSL JobNumber: 15319 Client: BEVERIDGE WILLIAMS

Enviroscience

Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Reference	Sample	BH No./Depth (m)	1 2 3-TRI CHLORO BENZENE	l 2 4-TRI CHLORO BENZENE	1 3 5-TRI CHLORO BENZENE	1 2 3 4-TETRA CHLORO BENZENE	I 2 3 5-TETRA CHLORO BENZENE	I 2 4 5-TETRA CHLORO BENZENE
266087	23-Dec-1999	BLANK		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
266190	(Duplicate of 265	918)			<0.5				-0.5
265918	23-Dec-1999	02	BH1 0.5-1.0		< 0.5				<0.5
% RPD					0				0
266191	(Spike of 265922)	ē.			1.4				27
Expected					1.4				2.7
% Recovery					100				96.4
265922	23-Dec-1999	06	BH3 0.5-1.0		<0.5				<0.5

A blank space indicates no test performed





# Attachment B: Beveridge Williams 2003

- Figure
- Bore Logs
- Results Table
- Laboratory Reports


APPROXIMATE SCALE 1:1000
⊕ BH1 DENOTES APPROXIMATE LOCATION OF BOREHOLES.



BEVERIDGE WILLIAMS & CO. PTY.LTD. ACN 006 197 235 SURVEYORS .ENGINEERS .PLANNERS 1075 HIGH STREET ARMADALE (03)98229799 48 LYDIARD ST SOUTH. BALLARAT (03)53313877 23 BAIR STREET LEDNGATHA (03)56622630 31 MURRAY STREET WONTHAGGI (03)56721505

# SITE PLAN SHOWING APPROXIMATE LOCATIONS OF BOREHOLES OAKLEIGH SOUTH PRIMARY SCHOOL BERYL AVENUE, OAKLEIGH SOUTH

FIGURE 2 REF. NO. D8610 K:\ENVIRON\PROJECT FILES\8610\BHOLES.DGN

Beveridge Williams & Co Pty Ltd	borehole no	BH02-5	
Engineering Log	sheet no	1 of 1	
Borehole	job no	D8610	

client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

Contrast and Contrast and Contrast and	auger	stope 90	KL Surface	not measured
hole diameter : 65mn	n	bearing	datum	

m	material description	observations	sample details
	SANDY SILT. Grey to brown. Rootlets present at surface with occasional red brick fragments. Contains fine, uniform,	DISTURBED NATURAL MATERIAL	02-5-1 02-5-1A 0.0-0.2m, CR=0
0.25 	Becoming lighter brown with depth. Becoming grey with depth.		PID=0.2ppm
— ).5			02-5-2 0.4-0.5m, CR=0
- - - - - - - - - - - - - - - - - - -	End of borehole at 0.5m depth.		PID=0.4ppm
- - . <u>5</u>			
-			
.75			
- 0			

Beverid	ge Williams & Co Pty Ltd	borehole no	BH02-6
Engineering Log		sheet no	1 of 1
Borehole		job no	D8610
client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

m	material description	observations	sample details
	Slightly OLAVEN GANDN OUT D		
<u></u>	Slightly CLAYEY SANDY SILT. Brown to	DISTURBED NATURAL MATERIAL	02-6-1
	dark brown. Contains rootlets and bark		0.0-0.2m, CR=0
-	close to the surface. Contains fine,		PID=0.4ppm
	uniform, subrounded quartz gravel. Dry.		
0.25	No odour.		
	Becoming lighter brown with depth.		
_	SILT. Light brown. Contains very fine,		
Ľ.,	uniform, subrounded quartz gravel. Dry.		02-6-2, 0.4-0.5n
0.5	No odour.		CR=0, PID=0.2
	SILTY CLAY. Orange mottled dark grev.		02-6-3
-	Contains fragments of cemented sandy		0.5-0.6m. CR=0
	silt in the upper level. Very stiff. Low		PID=0.1ppm
-	plasticity, Dry, No odour		oppm
0.75	Increased vellow mottling with denth		
	Occasional red mottling with depth		
-	o o o sensional rou motining with dopini		0264
-			02-0-4 0.8 0.0 CD_0
	End of hearbole of 0.0 and		0.8-0.9m, CR=0
-	End of borenoie at 0.9m depth		PID=0.2ppm
1.0	(auger refusal).		
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.5			
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<del>2</del> 1			
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.0	89		
ate 5.5.	9/	JAP 401 Work Instruction 301	

Engineering	o Log	u .	borehole no	BH02-7
Borehole	5 205		job no	D8610
client:Department of Education and Trainingproject:Contamination Assessmentlocation:Oakleigh South Primary School, Oakleigh South Primary School, Primary School, Primary Schol, Primary School, Primary		ining logged by: checked: Dakleigh South date:		D. Pendergast M. Schulz 18-Dec-02
drill model : hole diameter :	Hand auger 65mm	slope 90° bearing	RL surface datum	not measured
depth mater m	rial description	observations		sample details
SANI fine, t Dry. 1 	DY SILT. Grey to brown. Contains uniform, subrounded quartz gravel. No odour.	DISTURBED NAT	URAL MATERIAL	02-7-1 0.0-0.2m, CR= PID=0.4ppm
Becor  0.5	ning lighter grey/brown with depth.			02-7-2 0.4-0.5m, CR=
<u>1.0</u>   <u>-</u> <u>-</u> <u>1.25</u>				
 <u>5.0</u>				

Beveridge Williams & Co Pty Ltd	borehole no	BH02-8
Engineering Log	sheet no	1 of 1
Borehole	job no	D8610

client;	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

m	material description	observations	sample detail
	SANDY SILT. Grey to brown. Contains	DISTURBED NATURAL MATERIAL	02-8-1
	fine, uniform, subrounded quartz gravel. Dry. No odour.		02-8-2 (DUP) 0.0-0.2m, CR PID=0.8ppm
0.25   0.5	Becoming dark brown occasionally mottled orange with depth. Becoming dark grey with depth. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.	NĂTURĂL MĂTERIAL	
5	Becoming brown with depth.		02-8-3 0.5-0.6m, CR
<u></u>			
- .0			

Beveridge Williams & Co Pty Ltd	borehole no	BH02-9
Engineering Log	sheet no	1 of 1
Borehole	job no	D8610

client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

depth	material description	observations	sample details
m			
	SANDY SILT Gray to brown Contains	DISTUDRED NATURAL MATERIAL	02.0.1
-	large angular basalt fragments/	DISTURBED NATURAL MATERIAL	02-9-1 0.0.0.2m CD
-	screenings and fine uniform		0.0-0.2m, CR=
-	subrounded quartz gravel Dry No odour		PID=0.3ppm
0.25	Subrounded quarte Braven Dry, 110 000m.		
0.20			
-			
			02-9-2
0.5			0.4-0.5m, CR=
	End of borehole at 0.5m depth		PID=0.2ppm
	(auger refusal).		110 oneppin
0.75			
0			
1.0			
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1.25			
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.0			

Beverid	ge Williams & Co Pty Ltd	borehole no	BH02-10
Engineer	ing Log	sheet no	1 of 1
Borehole		job no	D8610
client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

depth	material description	observations	sample details
m			
0.25	SANDY SILT. Brown. Contains fine, uniform, subrounded quartz gravel, rootlets, and occasional basalt fragments. Dry. No odour.	DISTURBED NATURAL MATERIAL	02-10-1 0.0-0.2m, CR=0 PID=0.2ppm
0.5	Becoming light brown to beige with depth.		02-10-2 0.4-0.5m, CR=0
$\overline{1.0}$	End of borehole at 0.5m depth.		PID=0.2ppm
- 2.0	97	OAR 401 Work Instruction 201	-

Engineeri	e winnams & COPty LU	u	borehole no	BH02-11
Boreholo			sheet no	1 of 1
Dorenoie			job no	D8610
client: project: location:	Department of Education and Traini Contamination Assessment Oakleigh South Primary School, Oal	ng kleigh South	logged by: checked: date:	D. Pendergas M. Schulz 18-Dec-02
drill model : hole diameter :	Hand auger 65mm	slope 90° bearing	RL surface datum	not measured
depth mat m	erial description	observations		sample details
SAI and 	NDY SILT. Brown. Contains rootlets very fine quartz gravel. Dry. No odour.	NATURAL MATERIAL		02-11-1 0.0-0.2m, CR: PID=0.2ppm
SIL <sup>*</sup> 0.5 Stiff End	TY CLAY. Orange mottled brown. . Low plasticity. Dry. No odour. of borehole at 0.5m depth.			02-11-2 0.4-0.5m, CR= PID=0 1ppm
$\overline{1.0}$				
- - .0 )ate 5 5 97		OAD 401 Work Instruct	on 201	

Bever	ridge Williams & Co Pty Li	td	borehole no	BH02-12
Engin	eering Log		sheet no	1 of 1
Borehole		job no	D8610	
client: project: location:	Department of Education and Train Contamination Assessment Oakleigh South Primary School, O	ning akleigh South	logged by: checked: date:	D. Pendergast M. Schulz 18-Dec-02
drill mode hole diam	el : Hand auger neter : 65mm	slope 90° bearing	RL surface datum	not measured
depth m	material description	observations		sample details
  0.25	SILT. Brown to dark brown. Contains rootlets and fine, uniform, subrounded quartz gravel. Contains large basalt fragments and red brick fragments. Dry. No odour.	DISTURBED NAT	URAL MATERIAL	02-12-1 0.0-0.2m, CR=0 PID=0.2ppm
2	Becoming brown to orange with depth.	NATURAL MATEI	RIAL	
<u>).5</u>   <u>).75</u>          -	(auger refusal).			0.35-0.4m, CR=0 PID=0.1ppm
	7			

Beveridge Williams & Co Pty Ltd		borehole no	BH02-13
Engineering Log		sheet no	1 of 1
Borehole		job no	D8610
client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz

location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02
project:	Contamination Assessment	checked:	M. Schulz

1

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

m	material description	observations	sample details
0.25	CLAYEY SANDY SILT. Brown to dark brown. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL	02-13-1 02-13-2(DUP) 0.0-0.2m, CR=0 PID=0.0ppm
  <u></u>	Becoming light brown to beige with depth.		02-13-3 0.4-0.5m, CR=0
          	End of borehole at 0.5m depth.		PID=0.0ppm
- - - - - -			

Beveridge Williams & Co Pty Ltd	borehole no	BH02-14
Engineering Log	sheet no	1 of 1
Borehole	job no	D8610

project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

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depth m	material description	observations	sample details
0.25	SANDY SILT. Grey to brown. Contains rootlets. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL	02-14-1 02-14-1A 0.0-0.2m, CR=0 PID=0.3ppm
— — — <u>0.5</u>	Becoming light brown occasionally mottled brown with depth.		02-14-2 0.4-0.5m, CR=0
$\overline{1.0}$			

Beveridge Williams & Co Pty Ltd	borehole no	BH02-15
Engineering Log	sheet no	1 of 1
Borehole	job no	D8610

client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	18-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

depth m	material description	observations	sample details
 	SANDY SILT. Grey to brown. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL	02-15-1 0.0-0.2m, CR=0 PID=0.2ppm
— — — — — — —	Becoming lighter brown with depth.		02-15-2 0.5-0.6m, CR=0
<u>).7</u> 5	Becoming beige and mottled orange with depth.		PID=0.0ppm
-	SANDY CLAY. Light grey to beige mottled orange. Contains fine, uniform,		02-15-3 0.8-0.9m, CR=0
- - - - - - - - - - - - - - - - - - -			
.0	87	OAP 401 Work Instruction 201	

client:	Department of Education and Training	logged by:	D. Pendergas
Borehole		job no	D8610
Engineer	ring Log	sheet no	1 of 1
Beverid	lge Williams & Co Pty Ltd	borehole no	BH02-16

chent:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	19-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

SANDY SILT. Brown to light brown. Contains fine, uniform, subrounded quartz gravel and rootlets. Dry. No odour.	NATURAL MATERIAL	02-16-1 02-16-2 (DUP)
SANDY SILT. Brown to light brown. Contains fine, uniform, subrounded quartz gravel and rootlets. Dry. No odour.	NATURAL MATERIAL	02-16-1 02-16-2 (DUP)
Contains fine, uniform, subrounded quartz gravel and rootlets. Dry. No odour.	NATURAL MATERIAL	02-16-1 02-16-2 (DUP)
gravel and rootlets. Dry. No odour.		02-10-2 (DUP)
graver and rootiets. Dry. No odour.		0002 OD (
		DID=0.5000
		PID=0.5ppm
L'agaming brown to more with donth		
Becoming brown to grey with depth.		1
with depth		
with deput.		02 16 2
		0.4-0.5m CR-(
End of horehole at 0.5m depth		PID-0 8000
End of borenoic at 0.5m deput.		1 ID=0.0ppin
		14
	End of borehole at 0.5m depth.	End of borehole at 0.5m depth.

Beverid	ge Williams & Co Pty Lt	d	borehole no	BH02-17
Engineer	ing Log		sheet no	1 of 1
Borehole		job no	D8610	
client: project: location:	Department of Education and Train Contamination Assessment Oakleigh South Primary School, Oa	ing kleigh South	logged by: checked: date:	D. Pendergast M. Schulz 19-Dec-02
drill model : hole diameter	Hand auger : 65mm	slope 90° bearing	RL surface datum	not measured
depth m m	aterial description	observations		sample details
SA ba ba	ANDY SILT. Brown. Contains fine, hiform, subrounded quartz gravel and salt screenings. Contains rootlets. Dry.	DISTURBED NAT	URAL MATERIAL	02-17-1 02-17-1A 0.0-0.2m, CR=0 PID=0 6ppm
- (a)				
		QAP 401 Work Ins	truction 301	

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#### Beveridge Williams & Co Pty Ltd borehole no BH02-18 **Engineering Log** sheet no 1 of 1 Borehole job no D8610 client: Department of Education and Training logged by: D. Pendergast project: Contamination Assessment checked: M. Schulz location: Oakleigh South Primary School, Oakleigh South date: 19-Dec-02 slope 90° drill model : Hand auger RL surface not measured hole diameter : 65mm bearing datum depth material description observations sample details m SILTY SAND. Dark brown. Contains FILL MATERIAL 02-18-1 0.0-0.2m, CR=0 basalt screenings and fine, uniform. PID=0.6ppm subrounded quartz gravel. Dry. No odour. 0.25 SANDY SILT. Brown mottled orange. NATURAL MATERIAL Contains fine, uniform, subrounded quartz 02-18-2 gravel. Dry. No odour. 0.5 0.4-0.5m, CR=0 PID=0.3ppm Grades to SANDY CLAY. Dark brown mottled orange and occasionally black. Soft. Medium plasticity. Dry to 02-18-3 moist. No odour. 0.6-0.7m, CR=0 PID=0.6ppm 0.75 VERY SILTY CLAY. Dark grey to black. 02-18-4 Contains fine, uniform, subrounded quartz 0.8-0.9m, CR=0 gravel. Moist. No odour. PID=0.5ppm 1.0 SAND. Tan. Contains fine, uniform, subrounded quartz gravel. Moist. No 02-18-5 1.25 odour. 1.2-1.3m, CR=0 PID=0.5ppm 02-18-6 1.4-1.5m, CR=0 1.5 CLAY. Orange mottled light brown and PID=0.8ppm occasionally red. Firm to stiff. Medium to high plasticity. Moist. No odour. End of borehole at 1.5m depth. 1.75 Date 5.5.97 QAP 401 Work Instruction 301

			borenoie no	BH02-19
Engineerin	g Log		sheet no	1 of 1
Borehole			job no	D8610
client: project:	Department of Education and Trai Contamination Assessment	ning	logged by: checked:	D. Penderga M. Schulz
location:	Oakleigh South Primary School, C	Jakleigh South	date:	19-Dec-02
drill model :	Hand auger	slope 90°	RL surface	not measure
hole diameter :	65mm	bearing	datum	
depth mate m	erial description	observations		sample detai
SAN crush	DY SILT. Brown to grey. Contains ned basalt rock/screenings fine, uniform, subrounded quartz el. Dry. No odour.	DISTURBED NAT	URAL MATERIAL	02-19-1 0.0-0.2m, Cl PID=1.0ppn
$\overline{1.0}$ $\overline{1.0}$ $\overline{1.25}$ $\overline{1.5}$ $\overline{1.75}$				

Devering	e williams & Co Pty Li	a	borehole no	BH02-20	
Engineerin	ng Log		sheet no	1 of 1	
Borehole			job no	D8610	
client: project: location:	Department of Education and Train Contamination Assessment Oakleigh South Primary School, O	ling akleigh South	logged by: checked: date:	D. Pendergast M. Schulz 19-Dec-02	
drill model : hole diameter :	Hand auger 65mm	slope 90° bearing	RL surface datum	not measured	
depth mat m	erial description	observations		sample details	
SAJ unif crus	NDY SILT. Brown. Contains fine, form, subrounded quartz gravel and shed basalt rock/screenings.	DISTURBED NAT	URAL MATERIAL	02-20-1 0.0-0.2m, CR= PID=1.0ppm	
(aug	ger refusal).				

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Engineeri	ng Log	iu -	sheet no	1 of 1	
Borehole			job no	D8610	
client: project: location:	Department of Education and Trair Contamination Assessment Oakleigh South Primary School, O	ning akleigh South	logged by: checked: date:	D. Pendergast M. Schulz 19-Dec-02	
drill model : hole diameter :	Hand auger 65mm	slope 90° bearing	RL surface datum	not measured	
depth ma m	terial description	observations		sample details	
SA 	NDY SILT. Brown to grey. Contains e, uniform, subrounded quartz gravel d rootlets. Dry. No odour.	NATURAL MATERIAL		02-21-1 0.0-0.2m, CR= PID=0.4ppm	
— Bea — poc No — No — — — — — — — —	coming brown with depth. Contains skets of light brown sand. Dry. odour.			02-21-2 0.5-0.6m, CR= PID=0.2ppm	
Bec	coming lighter brown with depth.			02-21-3	
End	I of borehole at 1.0m depth.			PID=0.6ppm	
2.0 Date 5.5.97		QAP 401 Work Instruct	ion 301		

Beveridge Williams & Co Pty Ltd		borehole no	BH02-22
Engineering Log		sheet no	1 of 1
Borehole		job no	D8610
client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	19-Dec-02

hole diar	neter : 65mm	bearing	datum	
depth m	material description	observations		sample details
 	SANDY SILT. Grey to light brown. Contains rootlets and fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL		02-22-1 0.0-0.2m, CR=0 PID=0.2ppm
 0.5 	Grades to VERY CLAYEY SILT. Dark brown. Contains rootlets. Dry. No odour			02-22-2 0.4-0.5m, CR=0 PID=0.1ppm
0.75	Grades to SANDY SILT. Light brown becoming lighter brown with depth. Dry to moist. No odour.			02, 22, 2
1.0				0.9-1.0m, CR=0
            	End of borehole at 1.0m depth.			PID=0.0ppm
- - 2.0 Date 5.5	97	OAP 401 Work Instructi	ion 301	

Beverid	ge Williams & Co Pty Ltd	borehole no	BH02-23
Engineering Log Borehole		sheet no	1 of 1 D8610
		job no	
client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location	Oakleigh South Primary School, Oakleigh South	date.	19-Dec-02

hole diar	neter : 65mm	bearing	datum	not measured
depth m	material description	observations		sample details
0.25	SANDY SILT. Grey brown mottled brown. Contains rootlets and fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL		02-23-1 02-23-2 (DUP) 0.0-0.2m, CR=0 PID=0.2ppm
	Becoming brown with depth.			02-23-3 0.4-0.5m, CR=0 PID=0.2ppm
  T.TO	SANDY CLAY. Mottled tan and orange. Soft. Low plasticity. Moist. No odour.			02-23-4 0.9-1.0m, CR=0
- - - - - - - - - - - - - - - - - - -	End of borehole at 1.0m depth.			PID=0.1ppm

# Beveridge Williams & Co Pty Ltdborehole noBH02-24Engineering Logsheet no1 of 1Boreholejob noD8610

client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	19-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

depth m	material description	observations	sample details
_	ASPHALT	  FILL MATERIAL	
-	SANDY SILT. Brown to grey. Contains crushed basalt rock/screenings and some asphalt fragments. Dry. No odour.		02-24-1, 02-24-1A 0.05-0.2m, CR=1 PID=0.0ppm
0.25   0.5	VERY CLAYEY SILT. Dark grey occasionally mottled red. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.	NATURAL MATERIAL	02-24-2 0.2-0.3m, CR=0 PID=0.4ppm
0.75	Becoming brown with depth. Becoming light brown with depth.		
  <u>1.0</u>	SANDY SILT. Tan mottled brown. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.		02-24-3 0.8-1.0m, CR=0 PID=0.2ppm
- - - 1.25 -	End of borehole at 1.0m depth.	-	
— [ <u>.5</u> — —			
<u></u>			
0 Date 5.5.	97	OAP 401 Work Instruction 301	

Beverie	dge	Williams & Co Pty Lto	ł	borehole no	BH02-25
Enginee	ering	g Log		sheet no	1 of 1
Borehole				job no	D8610
client: project: location:		Department of Education and Trainin Contamination Assessment Oakleigh South Primary School, Oak	ng cleigh South	logged by: checked: date:	D. Pendergast M. Schulz 19-Dec-02
drill model : hole diamete	: er :	Hand auger 65mm	slope 90° bearing	RL surface datum	not measured
lepth n	mater	rial description	observations		sample details
	ASPI SAN subro	HALT D. Tan. Abundant fine, uniform, bunded quartz gravel. Dry. No odour.	FILL MATERIAL		02-25-1 0.1-0.2m, CR=0
	SILT. green subro	. Dark grey occasionally mottled near surface. Contains fine, uniform, ounded quartz gravel. Dry. No odour.	NATURAL MATERIAL		PID=0.2ppm 02-25-2 0.3-0.4m, CR=0 PID=0.7ppm
- 1 .75 I -	SANI unifor No oc	DY SILT. Tan to grey. Contains fine, rm, subrounded quartz gravel. Moist. dour.			02-25-3 0.6-0.7m, CR=0 PID=0.0ppm
2 .0 N	SILT Mediu	Y CLAY. Grey mottled brown. Firm. um plasticity. Moist. No odour.	-		02-25-4 0.9-1.0m, CR=0
I 	End o	f borehole at 1.0m depth.			PID=0.0ppm

QAP 401 Work Instruction 301

1.75

2.0 Date 5.5.97

# Beveridge Williams & Co Pty Ltdborehole noBH02-26Engineering Logsheet no1 of 1Boreholejob noD8610

client:	Department of Education and Training	logged by:	D. Pendergast
project:	Contamination Assessment	checked:	M. Schulz
location:	Oakleigh South Primary School, Oakleigh South	date:	19-Dec-02

drill model :	Hand auger	slope 90°	RL surface	not measured
hole diameter :	65mm	bearing	datum	

m     Asphalt covering at the surface to 0.03m depth.     FILL MATERIAL     02-26-1, 0.03-0.1r (R=0, PID=0.2pp)       SILT. Grey to brown. Contains abundant basalt screenings/crushed rock fragments.     NATURAL MATERIAL     02-26-2, 01-0.3m, CR=0       0.     CLAYEY SILT. Dark grey. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.     NATURAL MATERIAL     02-26-3, 0.4-0.5m, CR=0       0.5     uniform, subrounded quartz gravel. Moist. No odour.     No odour.     02-26-4, 0.4-0.5m, CR=0       0.75     SILTY CLAY. Grey mottled orange. Firm. Medium plasticity. Moist. No odour.     02-26-4, 0.75-0.85m, CR=0       1.0     orange. Stiff. Moist. No odour.     02-26-5, 0.95-1.05m, CR=0       1.0     orange. Stiff. Moist. No odour.     02-26-5, 0.95-1.05m, CR=0       1.10     crage. Stiff. Moist. No odour.     02-26-5, 0.95-1.05m, CR=0       1.10     crage. Stiff. Moist. No odour.     02-26-5, 0.95-1.05m, CR=0       1.125     I.10     orange. Stiff. Moist. No odour.     02-26-5, 0.95-1.05m, CR=0       1.125     I.13     I.14     I.14     I.14	depth	material description	observations	sample details
Asphalt covering at the surface to 0.03m depth.       FILL MATERIAL       02-26-1, 0.03-0.1r (CR=0, PID=0.2pp)         SILT. Grey to brown. Contains abundant basalt screenings/crushed rock fragments. Dry. No odour.       NATURAL MATERIAL       01-0.3m, CR=0         0.       CLAYEY SILT. Dark grey. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.       NATURAL MATERIAL       02-26-3         0.5       uniform, subrounded quartz gravel. Moist. No odour.       NATURAL MATERIAL       02-26-3         0.4 0.5m, CR=0       PID=0.2ppm         Becoming light tan with depth.       02-26-4       0.40.5m, CR=0         0.75       SILTY CLAY. Grey mottled orange. Firm. Medium plasticity. Moist. No odour.       02-26-4       0.750.85m, CR=0         PID=0.2ppm       02-26-5       0.957.105m, CR=0       02-26-5         0.957.105m, CR=0       PID=0.1ppm       02-26-5         0.957.105m, CR=0       PID=0.1ppm       02-26-5         0.957.105m, CR=0       PID=0.1ppm       02-26-5         1.10       orange. Stiff. Moist. No odour.       PID=0.1ppm         1.125       1.15       1.15       1.15         1.15       1.15       1.15       1.15         1.16       1.105m depth.       PID=0.1ppm       1.15	m			
0.     Dr. No odour.       0.     CLAYEY SILT. Dark grey. Contains fine, uniform, subrounded quartz gravel. Dry. No odour.     NATURAL MATERIAL       0.5     SANDY SILT. Tan. Contains fine, 0.5     0.40.5m, CR=0       0.5     uniform, subrounded quartz gravel. Moist.     0.40.5m, CR=0       No odour.     0.40.5m, CR=0       Becoming light tan with depth.     0.75.       0.75     0.226-4       Medium plasticity. Moist. No odour.     0.226-5       0.95.10.5m, CR=0     PID=0.2ppm       Becoming grey occasionally mottled     0.226-5       1.0     orange. Stiff. Moist. No odour.       1.0     orange. Stiff. Moist. No odour.       1.125     1.15	E	Asphalt covering at the surface to 0.03m depth. SILT. Grey to brown. Contains abundant hasalt screenings/crushed rock froemonts	FILL MATERIAL	02-26-1, 0.03-0.1m CR=0, PID=0.2ppm 02-26-2
Becoming light tan with depth. 0.75 SILTY CLAY. Grey mottled orange. Firm. Medium plasticity. Moist. No odour. Becoming grey occasionally mottled 10 orange. Stiff. Moist. No odour. End of borehole at 1.05m depth. 1.25 1.25 1.5 1.5 1.75	0.  0.5	Dry. No odour. CLAYEY SILT. Dark grey. Contains fine, uniform, subrounded quartz gravel. Dry. No odour. SANDY SILT. Tan. Contains fine, uniform, subrounded quartz gravel. Moist. No odour.	NATURAL MATERIAL	02-26-3 0.4-0.5m, CR=0 PID=0.2ppm
End of borehole at 1.05m depth.	0.75 	Becoming light tan with depth. SILTY CLAY. Grey mottled orange. Firm. Medium plasticity. Moist. No odour. Becoming grey occasionally mottled orange. Stiff. Moist. No odour.		02-26-4 0.75-0.85m, CR=0 PID=0.2ppm 02-26-5 0.95-1.05m, CR=0
2.0	<u>1.25</u> <u>1.5</u> <u>1.5</u> <u>1.75</u>	End of borehole at 1.05m depth.		PID=0.1ppm
	2.0	A.4		

#### Table 2 Results of Chemical Testing Soil Samples

Page 1 of 4 Ref No: D8610

1 Denotes concentration exceeds adopted or modified criteria

10 Denotes concentration exceeds EPA Fill criteria



\* NEPM and Dutch B criteria for complexed cyanide

† ANZECC B, NEPM and Dutch B criteria for Chromium (III)

							-		r	-	H	eavy Me	etals (m	g/kg)		_		_			
					Arsenic As	Boron B	Barium Ba	Beryllium Be	Cadmium Cd	Cobalt Co	Chromium† Cr	Copper Cu	Mercury Hg	Manganese Mn	Molybdenum Mo	Nickel Ni	Lead Pb	Antimony Sb	Selenium Se	Tin Sn	Zinc Zn
ANZECC	B Criteria				20				3	1.1	50	60	1	500	-	60	300	20	-	50	200
Dutch B					30	4	400	-	5	50	250	100	2		1.00	100	150	-	1	50	500
EPA Fill C	Iriteria				30	-	-		5	50	250	100	2	10-01	40	100	300	T WIT	10	50	500
EPA Low	Level Contaminated Soi	I Criteria			300	-		1	50	500	2500	1000	20		400	1000	3000	-	100	500	5000
NEPM Eco	ological Investigation Le	vels - Interim Urt	ban		20		300	-	3		400	100	1	500	400	60	600	-	100	500	3000
NEPM Hea	alth Investigation Level	'A' - Residential			100	3000	-	20	20	100	120000	1000	15	1500		600	200		-	-	200
NEPM He	alth Investigation Level	'D' - Residential -	Minimal Acc	ess to Soil	400	12000	1	80	80	400	480000	4000	60	6000		2400	1200		-	-	7000
NEPM He	alth Investigation Level	'E' - Parks, Open	Space and Pla	ving Fields	200	6000	-	40	40	200	240000	2000	30	3000	-	600	600	-	-	-	28000
NEPM He	alth Investigation Level	'F' - Commercial/	Industrial	2.8	500	15000	-	100	100	500	600000	5000	75	7500	-	2000	1500	-			14000
Adopted C	riteria				20	3000	300	20	3	50	400	100	1	500	10	5000	1500		- 10	-	35000
Modified (	Criteria 2 part Composite				10	1500	150	10	15	25	200	50	0.5	250	40	00	300	20	10	50	200
Modified (	Criteria 3 part Composite	2			7	1000	100	7	1.5	17	132	22	0.3	167	20	30	300	10	5	25	100
Modified (	Criteria 4 part Composite				5	750	75	5	0.75	125	100	25	0.33	107	13	20	200	1	3	17	67
Individual	Samples					1.20	1 12	1	0.75	16.5	100	25	0.25	123	10	15	150	5	2.5	12.5	50
Location	Depth (m)	Sample Number	Sample Date	Material Description																	
BH02-5	0.0-0.2	02-5-1	18-Dec-02	Sandy Silt	<5	<5	14	<5	<0.2	<5	6	<5	0.49	32	-5	-5	12	-5	-5	-5	12
BH02-6	0.0-0.2	02-6-1	18-Dec-02	Sandy Silt	9	<5	9	<5	<0.2	<5	7	<5	0.12	0	15	-5	24	<5	<3	<0	12
BH02-6	0.4-0.5	02-6-2	18-Dec-02	Silt	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	5	-5	-5	24		<.5	<5	<5
BH02-6	0.5-0.6	02-6-3	18-Dec-02	Silty Clay	<5	7	2.5	<5	<0.2	9	57	-5	<0.05	21	-5	20	11		<3	<>	<5
BH02-6	0.8-0.9	02-6-4	18-Dec-02	Silty Clay	<5	<5	31	<5	<0.2	7	44	-5	<0.05	10	-5	12	0	<3	<>	<5	<5
BH02-7	0.0-0.2	02-7-1	18-Dec-02	Sandy Silt	<5	<5	9	<5	<0.2	<5	8	8	0.18	17	-5	15	14	<5	<5	<5	<5
BH02-8	0.0-0.2	02-8-1	18-Dec-02	Sandy Silt	<5	<5	14	<5	<0.2	<5	7	9	-0.05	31	-5	<5	14	<3	<>	<5	1 22
BH02-9	0.0-0.2	02-9-1	18-Dec-02	Sandy Silt	5	<5	92	<5	<0.2	1 55	22	13	<0.05	110	1	11	23	<5	<2	<5	33
BH02-10	0.0-0.2	02-10-1	18-Dec-02	Sandy Silt	15	<5	18	5	<0.2	1 5	14	7	<0.05	56	-5	10	24	5	<>	<>	43
BH02-10	0.4-0.5	02-10-2	18-Dec-02	Sandy Silt	<5	<5	<5	<5	<0.2	<5	14	1 15	<0.05	7	-5	10	20	<>	<5	<5	25
BH02-11	0.0-0.2	02-11-1	18-Dec-02	Sandy Silt	12	<5	19	<5	<0.2	-5	21	7	0.00	00	45	0	<3	<2	<5	<5	<5
BH02-11	0.4-0.5	02-11-2	18-Dec-02	Silty Clay	22	<5	15	<5	<0.2	1 -5	27	7	0.09	60	0	11	11	<>	<>	<5	24
BH02-12	0.0-0.2	02-12-1	18-Dec-02	Silt	14	<5	14	<5	<0.2	<5	14	1 15	<0.00	52	1 15	12	10	<>	<5	<5	15
BH02-12	0.35-0.4	02-12-2	18-Dec-02	Silt	30	<5	12	<5	<0.2	<5	16	<5	<0.05	28	15	7	19	<0	<2	<>	12
BH02-13	0.0-0.2	02-13-1	18-Dec-02	Sandy Silt	<5	<5	19	<5	0.4	<5	7	280	10.00	39	15	8	18	10	<	<0	200
BH02-14	0.0-0.2	02-14-1	18-Dec-02	Sandy Silt	<5	<5	10	<5	<0.2	<5	<5	6	0.05	16	15	-5	40	<0	C)	<	320
BH02-15	0.0-0.2	02-15-1	18-Dec-02	Sandy Silt	<5	<5	12	<5	<0.2	<5	-5	65	0.57	21	<5	<5	13	<>	<>	<5	10
BH02-15	0.5-0.6	02-15-2	18-Dec-02	Sandy Silt	<5	<5	<5	<5	<0.2	<5	<5	25	<0.05	-5	-5	1 15	15	0	<>	0	12

#### Table 2 Results of Chemical Testing Soil Samples

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1 Denotes concentration exceeds adopted or modified criteria

10 Denotes concentration exceeds EPA Fill criteria

100 Denotes concentration exceeds NEPM health investigation level (Residential)

\* NEPM and Dutch B criteria for complexed cyanide

<sup>+</sup> ANZECC B. NEPM and Dutch B criteria for Chromium (III)

							1	1	p ==	-	He	avy Me	etals (m	g/kg)							
					Arsenic As	Boron B	Barium Ba	Beryllium Be	Cadmium Cd	Cobalt Co	Chromium† Cr	Copper Cu	Mercury Hg	Manganese Mn	Molybdenum Mo	Nickel Ni	Lead Pb	Antimony Sb	Selenium Se	Tin Sa	Zinc Zn
ANZECC I	B Criteria				20	1	-	1	3	-	50	60	1	500	-	60	300	20		50	200
Dutch B					30		400	1	5	50	250	100	2		-	100	150			50	500
EPA Fill C	riteria			11111	30	5			5	50	250	100	2		40	100	300		10	50	500
EPA Low L	Level Contaminated Soi	il Criteria			300	-	-		50	500	2500	1000	20		400	1000	3000	-	100	500	5000
NEPM Eco	logical Investigation L	evels - Interim Urb	an		20	- C	300	4	3	-	400	100	1	500	400	60	600		100	500	200
NEPM Hea	1th Investigation Level	'A' - Residential			100	3000		20	20	100	120000	1000	15	1500	1.0	600	300	-		-	200
NEPM Hea	alth Investigation Level	'D' - Residential -	Minimal Acc	ess to Soil	400	12000	-	80	80	400	480000	4000	60	6000	1.0	2400	1200	-	-	-	2000
NEPM Hea	alth Investigation Level	'E' - Parks, Open	Space and Pla	ving Fields	200	6000	-	40	40	200	240000	2000	30	3000	-	600	600		-		20000
NEPM Hea	alth Investigation Level	'F' - Commercial/	Industrial	) mg 1 totas	500	15000		100	100	500	600000	5000	75	7500	-	2000	1500	-	-	-	14000
Adopted C	riteria	. commercian	and don tur		20	3000	300	20	1 2	50	400	100	1 1	1500		3000	1500	-	-	-	35000
Modified C	riteria 2 nart Composit	e			10	1500	150	10	15	25	200	50	0.5	250	40	00	000	20	10	50	200
Modified C	riteria 3 part Composit	le .			7	1000	100	7	1.5	17	122	30	0.5	250	20	30	300	10	5	25	100
Modified C	criteria 3 part Composit					750	75	1	0.75	1125	133	33	0.33	10/	13	20	200	1	3	17	67
To dividual	Composit					1 750	15	5	0.75	12.5	100	45	0.25	125	10	15	150	5	2.5	12.5	50
Location	Depth (m)	Sample	Sample	Material Description				-				1	-	1	11.11		111				100
	- opin one	Number	Date	material Description	1				3	100					1.1	11.1					
BH02-15	0.8-0.9	02-15-3	18-Dec-02	Sandy Clay	<5	<5	5	<5	<0.2	9	15	<5	< 0.05	9	<5	8	7	<5	<5	<5	<5
BH02-16	0.0-0.2	02-16-1	19-Dec-02	Sandy Silt	<5	<5	12	<5	0.3	<5	11	<5	0.68	34	<5	<5	16	<5	<5	<5	5
BH02-17	0.0-0.2	02-17-1	19-Dec-02	Sandy Silt	19	<5	14	<5	<0.2	5	20	6	< 0.05	69	<5	16	20	<5	<5	<5	20
BH02-18	0.0-0.2	02-18-1	19-Dec-02	Silty Sand	7	<5	12	<5	<0.2	<5	9	<5	<0.05	27	<5	<5	13	<5	<5	<5	<5
BH02-18	0.4-0.5	02-18-2	19-Dec-02	Sandy Silt	6	<5	12	<5	<0.2	<5	7	<5	< 0.05	34	<5	<5	<5	<5	<5	<5	<5
BH02-18	0.6-0.7	02-18-3	19-Dec-02	Sandy Clay	65	1 <5	10	<5	<0.2	<5	13	<5	<0.05	59	<5	11	9	<5	<5	<5	<5
BH02-18	0.8-0.9	02-18-4	19-Dec-02	Very Silty Clay	16	<5	<5	<5	<0.2	<5	<5	<5	<0.05	8	<5	<5	<5	<5	<5	<5	<5
BH02-19	0.0-0.2	02-19-1	19-Dec-02	Sandy Silt	21	<5	14	<5	0.3	<5	16	6	<0.05	56	<5	10	20	<5	<5	<5	9
BH02-20	0.0-0.2	02-20-1	19-Dec-02	Sandy Silt	7	<5	13	<5	<0.2	<5	11	<5	<0.05	43	<5	6	18	<5	<5	<5	15
BH02-21	0.0-0.2	02-21-1	19-Dec-02	Sandy Silt	<5	<5	9	<5	<0.2	<5	<5	6	<0.05	28	<5	<5	17	1 15	-5	-5	16
BH02-21	0.9-1.0	02-21-3	19-Dec-02	Sandy Silt	-	1000	1 4	1.40	-	-	-		1		-	-	1				10
BH02-22	0.0-0.2	02-22-1	19-Dec-02	Sandy Silt	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	7	<5	<5	7	15	1 15	-5	-5
BH02-23	0.0-0.2	02-23-1	19-Dec-02	Sandy Silt	<5	<5	11	<5	<0.2	<5	<5	<5	<0.05	24	<5	<5	12	1 -5	15	15	12
BH02-23	0.9-1.0	02-23-4	19-Dec-02	Sandy Clay	<5	<5	5	<5	<0.2	<5	8	<5	<0.05	7	<5	<5	10	15	65	-5	15
BH02-24	0.05-0.2	02-24-1	19-Dec-02	Sandy Silt	27	5	23	<5	<0.2	8	33	6	<0.05	120	<5	20	17	15	-5	1.5	18
BH02-24	0.2-0.3	02-24-2	19-Dec-02	Very Clayey Silt	<5	<5	15	<5	<0.2	<5	<5	<5	<0.05	10	<5	<5	11	1 15	-5	-5	10
BH02-25	0.1-0.2	02-25-1	19-Dec-02	Sand	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	54	-5	7	-5	15	15	15	-5
BH02-25	0.3-0.4	02-25-2	19-Dec-02	Silt	<5	<5	24	<5	<0.2	<5	<5	5	<0.05	73	15	15	12	5	15	5	20
BH02-26	0.03-0.1	02-26-1	19-Dec-02	Asphalt Gravel	<5	<5	14	<5	<0.2	23	13	26	<0.05	460	15	82	12	10		0	20
BH02-26	0.2-0.3	02-26-2	19-Dec-02	Clavey Silt	7	<5	6	<5	<0.2	1 25	15	18	-0.05	10	1	0.5	12	0	<>	< <u>&gt;</u>	55
BH02-26	0.75-0.85	02-26-4	19-Dec-02	Silty Clay	<5	<5	13	<5	<0.2	25	20	10	-0.05	17	<5 	2	13	0	<5	<5	5
	1.0.00			sing sing			1.5		-0.2		20	- 3	<0.05	19	(c)	1	0	<>	0	<5	<5

#### Table 2 Results of Chemical Testing Soil Samples

Page 3 of 4 Ref No: D8610

1 Denotes concentration exceeds adopted or modified criteria

10 Denotes concentration exceeds EPA Fill criteria



\* NEPM and Dutch B criteria for complexed cyanide

† ANZECC B, NEPM and Dutch B criteria for Chromium (III)

										_									Organi	cs (mg/kį	z)	
					Tot	al Petro	leum I	Hydroc	arbons		Pol	ycyclic .	Aromatic	Hydroc	arbons			Org	anochlo	orine Pest	icides	
					CC,	C10-C14	C <sub>15</sub> -C <sub>28</sub>	C29-C36	>C,	Total PAH	B(a)p	Naphthalene	Anthracene	Phenanthrene	Fluoranthene	Pyrene	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT + DDD + DDE	Heptachlor	Total OC Pesticides
ANZECC	B Criteria				1	1.0	1.4	-	1.00		1.14.11	1.17-01	1.00		L LeC 1	1.1	0.2	-	-		-	
Dutch B					1.2		-		1.2	20	1	5	10	10	10	10		1	-	1		
EPA Fill C	Criteria				100	-	1.10	-	1000	20	1.000	2-1	040	-	1.1			-		1.1	-	1
EPA Low	Level Contaminated S	oll Criteria			1000	1.1	10-5	4	10000	200	-	10401	-	-	-							10
NEPM Ec	ological Investigation I	Levels - Interim Url	oan		-	-	11.00	6.0			121	1.1.4			-		-			-		10
NEPM He	alth Investigation Leve	el 'A' - Residential					1.1-11		1.00	20	1		1.4	-			1	10	50	200	10	
NEPM He	alth Investigation Leve	el 'D' - Residential -	Minimal Acc	ess to Soil	-	-	1-11	-	1.40	80	4	11.001		1				10	200	200	10	
NEPM He	alth Investigation Leve	el 'E' - Parks, Open	Space and Pla	ying Fields	-	-	1.4	1.41	1 A	40	2		-	1	-		-	20	100	400	40	
NEPM He	alth Investigation Leve	el 'F' - Commercial/	Industrial		-	1.00	-	1.45	1.001	100	5		-	111			-	50	250	400	20	-
Adopted C	riteria	1			100	-	1.2	1	1 1000	20	11	5	10	10	10	10	0.2	10	230	1000	50	
Modified (	Criteria 2 part Compos	ite			50	1.0	-		500	10	0.5	25	5	5	5	5	0.2	10	50	200	10	1
Modified (	Criteria 3 part Compos	ite			33	1.0	1		333	7	0.33	17	22	22	22	22	0.1	2	25	100	5	0.5
Modified (	Criteria 4 part Compos	ite			25		12	4.	250	5	0.25	1.25	2.5	2.5	2.5	3.3	0.07	3	17	6/	3	0.33
Individua	Samples					1	-	-	1 -00	-	10.00	1.05	2.5	4.5	2.5	2.3	0.03	2.5	12.5	50	2.5	0.25
Location	Depth (m)	Sample Number	Sample Date	Material Description																		
BH02-5	0.0-0.2	02-5-1	18-Dec-02	Sandy Silt	-	1.1		-	102-0	-	1	-	-	1	-		-0.05	-01	-0.05	0.15	0.05	0.05
BH02-6	0.0-0.2	02-6-1	18-Dec-02	Sandy Silt	-	-	-		1.201	1	-		1			-	<0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-6	0.4-0.5	02-6-2	18-Dec-02	Silt	-		1 1-1			-					-	-	<0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-6	0.5-0.6	02-6-3	18-Dec-02	Silty Clay	1.2		-	1	-	-			10		-	-		-	-	-	-	-
BH02-6	0.8-0.9	02-6-4	18-Dec-02	Silty Clay	-		1								-	-	-	-	-		1.00	
BH02-7	0.0-0.2	02-7-1	18-Dec-02	Sandy Silt		-	-	-	1	-	-	1			-			-		-		
BH02-8	0.0-0.2	02-8-1	18-Dec-02	Sandy Silt	-	-	-	-		1				-	-	-	-0.05	-	-	-	-	-
BH02-9	0.0-0.2	02-9-1	18-Dec-02	Sandy Silt		140	-		4	-		-		-			<0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-10	0.0-0.2	02-10-1	18-Dec-02	Sandy Silt	-	-	-			-	-	-	-	-	-	-	-0.05		-	-	-	-
BH02-10	0.4-0.5	02-10-2	18-Dec-02	Sandy Silt			-				-	10 1	-		-	-	<0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-11	0.0-0.2	02-11-1	18-Dec-02	Sandy Silt	-	-	-			-	-	1				-		-	-		-	-
BH02-11	0.4-0.5	02-11-2	18-Dec-02	Silty Clay	-	-	-	-	1.20	-				-	-	-						-
BH02-12	0.0-0.2	02-12-1	18-Dec-02	Silt	-		-		1.02	-	-	1.1		-			-0.05	-0.1	-	0.15	-	-
BH02-12	0.35-0.4	02-12-2	18-Dec-02	Silt	-	-	-	-		-	-	-				-	<0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-13	0.0-0.2	02-13-1	18-Dec-02	Sandy Silt	-		1.24	-	-	-			-					-	-	1.20		-
BH02-14	0.0-0.2	02-14-1	18-Dec-02	Sandy Silt	14	-				-	1.2	-	-				-0.05	-0.1	-0.05		-	-
BH02-15	0.0-0.2	02-15-1	18-Dec-02	Sandy Silt	-	1.2	-	1.42		4	6.7	1000			-		\$0.05	<0.1	<0.05	<0.15	<0.05	<0.95
BH02-15	0.5-0.6	02-15-2	18-Dec-02	Sandy Silt	-	-		1.4	- 2 -	-	-			-						-	-	-

Table 2 Results of Chemical Testing Soil Samples

Page 4 of 4 Ref No: D8610

I Denotes concentration exceeds adopted or modified criteria
 Denotes concentration exceeds EPA Fill criteria
 Donotes concentration exceeds NEPM health investigation level (Residential)

\* NEPM and Dutch B criteria for complexed cyanide

+ ANZECC B, NEPM and Dutch B criteria for Chromium (III)

					Tot	al Petro	leum L	Judroe	rhone	-	Del								Organi	cs (mg/kg	g)	
					100	I I Cut	I	Tyuroc.			Pol	ycyclic .	Aromatic	Hydroc	arbons	-	-	Org	anochlo	orine Pest	ticides	
					C6-C9	C <sub>10</sub> -C <sub>14</sub>	C <sub>15</sub> -C <sub>28</sub>	C29-C36	>C,	Total PAH	B(a)p	Naphthalene	Anthracene	Phenanthrene	Fluoranthene	Pyrene	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT + DDD + DDE	Heptachlor	Total OC Pesticides
ANZECC	B Criteria				142	2.4		1.41			4		-	-		1	0.2				-	
Dutch B					1.140	15.	-	1.	10.	20	1	5	10	10	10	10	0.2	-	-		-	
EPA Fill C	riteria				100	1.4	-		1000	20	-	1		10	10	10			-			
EPA Low	Level Contaminated Sc	oil Criteria			1000		- ÷-		10000	200		-					-	-	-			1
NEPM Eco	ological Investigation L	evels - Interim Ur	ban				1.4/	1441	100200			-	1 .			-	-				-	10
NEPM He	alth Investigation Level	l'A' - Residential			-	1.12.1	1	-	1.1	20	1			1.1.1	1	-		10	50	-	-	-
NEPM He	alth Investigation Level	l'D' - Residential -	Minimal Acc	ess to Soil					100	80	4				-		-	10	50	200	10	-
NEPM He	alth Investigation Level	l'E' - Parks, Open	Space and Pla	ying Fields	1.41	112	-			40	2				-			40	200	800	40	
NEPM He	alth Investigation Level	F' - Commercial/	Industrial		1.41	1.14	-			100	5		-	-		-		20	100	400	20	1.00
Adopted C	riteria				100	1.1	-		1000	20	1 1	5	10	10	- 10	-	-	50	250	1000	50	
Modified (	Criteria 2 part Composi	te			50				500	10	0.5	25	10	10	10	10	0.2	10	50	200	10	1
Modified (	Criteria 3 part Composi	te			33	1.5			222	7	0.5	2.3	3	5	5	5	0.1	5	25	100	5	0.5
Modified (	Criteria 4 part Composi	te			25				250	5	0.33	1.7	3.3	3.3	3.3	3.3	0.07	3	17	67	3	0.33
Individual	Samples						-	-	250		0.23	1.25	2.5	2.5	2.5	2,5	0.05	2.5	12.5	50	2.5	0.25
Location	Depth (m)	Sample	Sample	Material	1																	
BH02 15	0.9.0.0	Number	Date	Description			-					1			1.000							1.
BH02-15	0.0-0.9	02-15-3	18/Dec/02	Sandy Clay	-		-	1			-		122	1 A.	-	1.221	1.	1.1	The Party			
BH02-10	0.0-0.2	02-16-1	19/Dec/02	Sandy Silt	-	194			1.1		1 -	-		1-4	-	1-2-1	< 0.05	<0.1	< 0.05	<0.15	<0.05	-0.9
DU02-17	0.0-0.2	02-17-1	19/Dec/02	Sandy Silt	-	1383	-	1.4	· · ·	= 6g f	152.5		1.14	1		-48	10.4			-	-0.05	-0.2.
DLI02-10	0.0-0.2	02-18-1	19/Dec/02	Silty Sand		140		16		-	1.5.4	4	10401			2.21	<0.05	<0.1	<0.05	<0.15	<0.05	<0.0
DH02-10	0.4-0.3	02-18-2	19/Dec/02	Sandy Silt	-					$\leq$	< 0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	1.00		-	-	-0.05	-0.7.
DH02-18	0.0-0.7	02-18-3	19/Dec/02	Sandy Clay		114	÷.	- × 1		<1	<0.1	< 0.1	<0.1	< 0.1	<0.1	<0.1	. w.		1.2		1	
DHU2-18	0.8-0.9	02-18-4	19/Dec/02	Very Silty Clay	1.4	1.14	141	1.4		+ 1	1.54	122		1	1.1	- 4	-				1	-
DH02-19	0.0-0.2	02-19-1	19/Dec/02	Sandy Silt				1	11-11		1.4	- 27	. (a)	1.2.2	1.0	Sec. 1				-		-
DH02-20	0.0-0.2	02-20-1	19/Dec/02	Sandy Silt	-		•	19	16 L	9			102	-	- 14V				1.1.1			
DH02-21	0.0-0.2	02-21-1	19/Dec/02	Sandy Silt	<20	<20	<50	<50	<120	+	-	-		1.21		1.2.51	<0.05	<0.1	<0.05	<0.15	-0.05	-0.0
BH02-21	0.9-1.0	02-21-3	19/Dec/02	Sandy Silt	<20	<20	<50	<50	<120	-21	104			11.421	1.20		-		-0.05	-0.15	20.05	-0.9.
DI102-22	0.0-0.2	02-22-1	19/Dec/02	Sandy Silt	1.2	1	4		10,4,12	- e. I	1.225	1.1	1.1	-	1.5	6	<0.05	<01	<0.05	-0.15	20.05	
BH02-23	0.0-0.2	02-23-1	19/Dec/02	Sandy Silt		14	-		1-1-0-0	*	15.4 0	2.1	C. Torra	-	-		-:0.05	<0.1	<0.05	<0.15	<0.03	<0.9
DH02-23	0.9-1.0	02-23-4	19/Dec/02	Sandy Clay			1.1		1.50	- 60		-	11.2.11		1.1	-			-0.05	-0.15	~0.03	~0.9
DHU2-24	0.05-0.2	02-24-1	19/Dec/02	Sandy Silt	-	1.5	-		1.00	<1	< 0.1	<0.1	<0,1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.05	<0.15	10.05	-0.04
DHU2-24	0.2-0.3	02-24-2	19/Dec/02	Very Clayey Silt	-	1.14		1.81	1-1-1-1	1.45	-	2.221	-		N. 4.1	-		-0.1	40.00	~0.15	10.05	<0.9
BH02-25	0.1-0.2	02-25-1	19/Dec/02	Sand	-	14		TAL.	4			T (* 1 1	-	1.247.1		20	-					
DH02-25	0.5-0.4	02-25-2	19/Dec/02	Silt		1284	-	1231	IT B	<]	<0.1	< 0.1	<0.1	<0.1	<0.1	<01	<0.05	<0.1	<0.05	<0.15	-0.05	-0.01
BH02-26	0.03-0.1	02-26-1	19/Dec/02	Asphalt Gravel			-	4	1.41				10411				-0.05	50.1	~0.05	~0.15	<0.05	<0.95
BH02-26	0.2-0.3	02-26-2	19/Dec/02	Clayey Silt	-	njani,	-	1.203		<1	<0.1	<0.1	<0.1	<0.1	<0.1	<01	-0.05	<01	-0.05	-0.10	-	-
1111111111	10 75 0 85	02 26 4	10/0-100	011 01				_				7.4.4		-W.A.	-v.1	-V.1	0.05	NU.1	~U.US	SU15	1 <0.05	< 0.95



**WSL**Consultants<sup>TM</sup> Enviroscience

XI:15319



## Your Ref: D8610 - OAKLEIGH STH PRIMARY SCHOOL

6 January 2003

Bevericge Williams & Co. Pty. Ltd. PO Box 2205 CAUFELD JUNCTION VIC 3161

Date Received: 23/12/2002 Date Sampled: 18 & 19/12/2002

Attention: M . Ian McKenzie

# **Certificate of Analysis**

WSL Report Number: 522805

The sample(s) referred to in this report were analysed by the following methods:

Analyte(s)	Method
Metals	WSL-032
OCs	WSL8000
PAHs	WSL8000
TPH	WSL030

Results pertain to samples as received Details of this report were faxed on: 6/01/2003

Yours faithfully WSL Consultants Pty Ltd

11.1

Nick Bray Manager Of Chemistry



This Laboratory is accredited by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with is terms of accreditation. This document shall not be reproduced except in full.

Accreditation No's 1201 & 1205

Page 1 of 13

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A NATA Accredited Laboratory An Approved Quarantine Premises An Approved EPA Auditor



## WSL Consultan v. Ltd.

A.C.N. 004 752 676 A.B.N. 49 004 752 676 2-8 Harvey Street, Richmond, Victoria 3121, Australia Telephone: +61 3 9429 4666 Facsimile: +61 3 9429 2294 Email: wsl@wsl.com.au Web: www.wsl.com.au



Date: 6-Jan-2003 WSL Report No: 522805

WSL JobNumber: 15319 Client: Beven

Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Received	Sample	BH No.	Depth (m)	As	в	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Mo	Ni	Pb	Sb	Se	Sn	Zn
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<5	<5	14	<5	<0.2	<5	6	<5	0.49	32	<5	<5	12	<5	<5	<5	12
522808	23-Dec-2002	02-6-1	BH02-6	0.0-0.2	9	<5	9	<5	<0.2	<5	7	<5	0.12	9	<5	<5	24	<5	<5	<5	<5
522809	23-Dec-2002	02-6-2	BH02-6	0.4-0.5	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	5	<5	<5	<5	<5	<5	<5	-<5
522810	23-Dec-2002	02-6-3	BH02-6	0.5-0.6	<5	7	25	<5	<0.2	9	57	<5	<0.05	21	<5	20	11	<5	~5	<5	<5
522811	23-Dec-2002	02-6-4	BH02-6	0.8-0.9	<5	<5	31	<5	<0.2	7	44	<5	<0.05	10	<5	13	9	<5	~5	<5	<5
522812	23-Dec-2002	02-7-1	BH02-7	0.0-0.2	<5	<5	9	<5	<0.2	<5	8	8	0.18	17	<5	<5	14	<5	<5	<5	7
522814	23-Dec-2002	02-8-1	BH02-8	0.0-0.2	<5	<5	14	<5	0.2	<5	7	9	<0.05	31	<5	<5	23	<5	<5	<5	33
522815	23-Dec-2002	02-8-2	BH02-8		11	<5	12	<5	<0.2	<5	7	8	<0.05	36	<5	<5	26	<5	<5	<5	33
522817	23-Dec-2002	02-9-1	BH02-9	0.0-0.2	5	<5	92	<5	<0.2	<5	22	13	<0.05	110	<5	11	24	<5	<5	<5	43
522819	23-Dec-2002	02-10-1	BH02-10	0.0-0.2	15	<5	18	<5	<0.2	<5	14	7	<0.05	56	<5	10	26	<5	<5	<5	25
522820	23-Dec-2002	02-10-2	BH02-10	0.4-0.5	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	7	<5	<5	<5	<5	~5	<5	~5
522821	23-Dec-2002	02-11-1	BH02-11	0.0-0.2	12	~:5	19	<5	<0.2	<5	21	7	0.09	88	<5	11	77	<5	<3	<5	24
522822	23-Dec-2002	02-11-2	BH02-11	0.4-0.5	22	<5	15	<5	<0.2	<5	22	7	0.08	69	<5	12	23	<5	<5	<5	15
522823	23-Dec-2002	02-12-1	BH02-12	0.0-0.2	14	<5	14	<5	<0.2	<5	14	<5	<0.05	52	<5	9	19	<5	~5	<5	12
522824	23-Dec-2002	02-12-2	BH02-12	0.35-0.4	30	<5	12	<5	<0.2	<5	16	<5	<0.05	28	<5	7	9	<5	<5	<5	<5
522825	23-Dec-2002	02-13-1	BH02-13	0.0-0.2	<5	<5	19	<5	0.4	<5	7	280	0.09	39	<5	8	48	<5	<5	<5	320
522828	23-Dec-2002	02-14-1	BH02-14	0.0-0.2	:5	<5	10	<5	<0.2	<5	<5	6	<0.05	16	<5	<5	15	<5	<5	<5	10
522830	23-Dec-2002	02-15-1	BH02-15	0.0-0.2	<5	<5	12	<5	<0.2	<5	<5	<5	0.57	21	<5	<5	13	<5	-:5		12
522831	23-Dec-2002	02-15-2	BH02-15	0.5-0.6	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	<5	<5	<5	~5	~5	<5	<5	<5
522832	23-Dec-2002	02-15-3	BH02-15	0.8-0.9	<5	<5	5	<5	<0.2	9	15	<5	<0.05	9	<5	8	7	<5	~5	<5	-35



**WSL** Consultant<sup>2</sup> 7. Ltd. A.C.N. 004 752 676 A.B.N. 49 004 752 676 2-8 Harvey Street, Richmond, Victoria 3121, Australia Telephone: +61 3 9429 4666 Facsimile: +61 3 9429 2294 Email: wsl@wsl.com.au Web: www.wsl.com.au



## Date: 6-Jan-2003

WSL Report No: 522805

WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Received	Sample	BH No.	Depth (m)	As	В	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Мо	Ni	Pb	Sb	Se	Sn	Zn
522834	23-Dec-2002	02-16-1	BH02-16	0.0-0.2	<5	<5	12	<5	0.3	<5	11	<5	0.68	34	<5	<5	16	<5	<5	<5	5
522835	23-Dec-2002	02-16-2	BH02-16		<5	<5	21	<5	0.3	<5	12	<5	1.2	43	<5	6	20	<5	<5	<5	15
522837	23-Dec-2002	02-17-1	BH02-17	0.0-0.2	19	<5	14	<5	<0.2	5	20	6	<0.05	69	<5	16	20	<5	<5	<5	20
522838	23-Dec-2002	02-18-1	BH02-18	0.0-0.2	7	<5	12	<5	<0.2	<5	9	<5	<0.05	27	<5	<5	13	-5	<5	<5	~5
522839	23-Dec-2002	02-18-2	BH02-18	0.4-0.5	6	<5	12	<5	<0.2	<5	7	<5	<0.05	34	<5	<5	<5	<5	<5	<5	<5
522840	23-Dec-2002	02-18-3	BH02-18	0.6-0.7	65	<5	10	<5	<0.2	<5	13	<5	<0.05	59	<5	11	9	<5	<5	<5	-<5
522841	23-Dec-2002	02-18-4	BH02-18	0.8-0.9	16	<5	<5	<5	<0.2	<5	<5	<5	<0.05	8	<5	<5	<5	~5	<5	<5	<5
522844	23-Dec-2002	02-19-1	BH02-19	0.0-0.2	21	<5	14	<5	0.3	<5	16	6	<0.05	56	<5	10	20	<5	<5	<5	9
522845	23-Dec-2002	02-20-1	BH02-20	0.0-0.2	7	<5	13	<5	<0.2	<5	11	<5	<0.05	43	<5	6	18	<5	<5	<5	15
522846	23-Dec-2002	02-21-1	BH02-21	0.0-0.2	<5	<5	9	<5	<0.2	<5	<5	6	<0.05	28	<5	<5	17	<5	<5	<5	16
522849	23-Dec-2002	02-22-1	BH02-22	0.0-0.2	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	7	<5	<5	7	<5	<5	<5	<5
522852	23-Dec-2002	02-23-1	BH02-23	0.0-0.2	<5	<5	11	<5	<0.2	<5	<5	<5	<0.05	24	<5	<5	12	-5	<5	<5	13
522855	23-Dec-2002	02-23-4	BH02-23	0.9-1.0	<5	<5	5	<5	<0.2	<5	8	<5	<0.05	7	<5	<5	<5	<5	<5	<5	~5
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	27	5	23	<5	<0.2	8	33	6	<0.05	120	<5	20	17	<5	<5	<5	18
522857	23-Dec-2002	02-24-2	BH02-24	0.2-0.3	<5	<5	15	<5	<0.2	<5	<5	<5	<0.05	10	<5	<5	11	-5	<5	<5	<5
522859	23-Dec-2002	02-25-1	BH02-25	0.0-0.2	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	54	<5	7	<5	:5	<5	<5	-:5
522860	23-Dec-2002	02-25-2	BH02-25	0.3-0.4	<5	<5	24	<5	<0.2	<5	<5	<5	<0.05	73	<5	<5	12	<5	<5	<5	20
522863	23-Dec-2002	02-26-1	BH02-26	0.0-0.1	<5	<5	14	<5	<0.2	23	13	26	<0.05	460	<5	83	-:5	-:5	<5	~5	33
522864	23-Dec-2002	02-26-2	BH02-26	0.1-0.3	7	<5	6	<5	<0.2	<5	<5	18	<0.05	19	<5	<5	13	-:5	<5	<5	-5
522866	23-Dec-2002	02-26-4	BH02-26	0.75-0.85	-:5	<5	13	<5	<0.2	-:5	20	~5	-:0.05	19	<5	7	6	<5	<5	<5	<5

Results expressed as mg/kg dry weight.



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Date: 6-Jan-200 WSL Report No: WSL JobNumber:	03 522805 15319 Clie	ent: Beveridge Williams & C	o. Pty. Ltd.	Job Rei	ference: D	8610 - OA	KLEIGH S	TH PRIM	ARY SCH	OOL									
LAB NUM	Received	Sample	As	в	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Мо	Ni	Рb	Sb	Se	Sn	Zn
522807	23-Dec-2002	RINS 18/12/02	< 0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.0005	<0.001	<0.001
522833	23-Dec-2002	RINS 19/12/02	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.0005	<0.001	<0.001



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### Date : 6-Jan-2003

WSL Report No: 522805

WSL JobNumber:	15319 Clie	ent: Beveridge W	illiams & Co. Pty. Ltd.	Job Reference	: D8610 - OAK	LEIGH STH	PRIMARY SC	CHOOL
LAB NUM	Received	Sample	BH No.	Depth (m)	ТРН С6-С9	ТРН C10-C14	ТРН C15-C28	ТРН С29-С36
522846	23-Dec-2002	02-21-1	BH02-21	0.0-0.2	<20	<20	<50	<50
522848	23-Dec-2002	02-21-3	BH02-21	0.9-1.0	<20	<20	<50	<50



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Date: 6-Jan-2	003																				
WSL Report No: 522805 WSL JobNumber: 15319 Client: Bev			ge Williams & C	o. Pty. Ltd.	Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL																
LAB NUM	Received	Sample	BH No.	Depth (m)	NAP	ACY	ACE	FLU	PHE	ANT	FLA	PYR	BAA	CHR	BBF	BKF	BAP	DBA	BGP	IPY	TOTAL* PAH
522839	23-Dec-2002	02-18-2	BH02-18	0.4-0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-:0.1	-<1
522840	23-Dec-2002	02-18-3	BH02-18	0.6-0.7	<0.1	<0.1	<0.I	<0.1	<0.1	<0,1	<0.1	-<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-=1
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	~1
522860	23-Dec-2002	02-25-2	BH02-25	0.3-0.4	<0.1	<0.1	<0.1	<0.1	<0,1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	~0.1	≪t
522864	23-Dec-2002	02-26-2	BH02-26	0.1-0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1

\* Total PAH's refers only to the sum of individual PAH's tested above.

A blank space indicates no test performed

Results expressed as mg/kg dry weight



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### Date : 6-Jan-2003

WSL Report No: 522805

WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Received	Sample	BH No.	Depth (m)	HCB	a-BHC	LINDANE	HEPTACHLOR	ALDRIN	b-ВНС	d-BHC	HEPTACHLOR- EPOXIDE	DDE	DIELDRIN
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522808	23-Dec-2002	02-6-1	BH02-6	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522814	23-Dec-2002	02-8-1	BH02-8	0.0-0.2	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522819	23-Dec-2002	02-10-1	BH02-10	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522823	23-Dec-2002	02-12-1	BH02-12	0.0-0.2	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522828	23-Dec-2002	02-14-1	BH02-14	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522834	23-Dec-2002	02-16-1	BH02-16	0.0-0.2	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522838	23-Dec-2002	02-18-1	BH02-18	0.0-0.2	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522846	23-Dec-2002	02-21-1	BH02-21	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522849	23-Dec-2002	02-22-1	BH02-22	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522852	23-Dec-2002	02-23-1	BH02-23	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.05	<0.05	< 0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	< 0.05	<0.05
522860	23-Dec-2002	02-25-2	BH02-25	0.3-0.4	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522864	23-Dec-2002	02-26-2	BH02-26	0.1-0.3	<0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Results expressed as mg/kg dry weight



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Date : 6-Jan-2003

WSL Report No: 522805

WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Received	Sample	BH No.	Depth (m)	DDD	DDT	ENDRIN	METHOXYCHLOR	CHLORDANE	a-ENDO- SULPHAN	b-ENDO- SULPHAN	ENDOSULPHAN SULPHATE	ENDRIN ALDEHYDE
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522808	23-Dec-2002	02-6-1	BH02-6	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522814	23-Dec-2002	02-8-1	BH02-8	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522819	23-Dec-2002	02-10-1	BH02-10	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05	<0.05	<0.05
522823	23-Dec-2002	02-12-1	BH02-12	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522828	23-Dec-2002	02-14-1	BH02-14	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05
522834	23-Dec-2002	02-16-1	BH02-16	0.0-0.2	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522838	23-Dec-2002	02-18-1	BH02-18	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522846	23-Dec-2002	02-21-1	BH02-21	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522849	23-Dec-2002	02-22-1	BH02-22	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522852	23-Dec-2002	02-23-1	BH02-23	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522860	23-Dec-2002	02-25-2	BH02-25	0.3-0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522864	23-Dec-2002	02-26-2	BH02-26	0.1-0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Results expressed as mg/kg dry weight

WSL Consultan y. Ltd.



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## QUALITY ASSURANCE REPORT

Date: 6-Jan-2003

WSL Report No: 522805 WSL JobNumber: 15319

Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Reference	Sample	BH No.	Depth (m)	As	В	Ba	Be	Cd	Co	Cr	Cu	Hg	Mn	Мо	Ni	Pb	Sb	Se	Sn	Zn
523728	23-Dec-2002	BLANK			<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	<5	<5	<5	<5	<5	<5	<5	<5
524191	(Duplicate of 5228	205)			<5	<5	15	<5	<0.2	<5	5	-5	0.46	21	15	-5	10		-		
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<5	<5	14	-5	-0.2	15	6	-5	0.40	31	<>	<2	12	<5	<5	<5	12
% RPD		40.4.4		0.0.0,2	0	0	6.9	0	0.2	0	18.2	0	6.3	3.2	0	<>	0	<5	<5	<5	12
524193	Dunlicate of 5228	20)			-5	~			-0.0												
522820	23-Dec-2002	02-10-2	BH02.10	0105		~5	5		-0.2	<0	0	<>>	<0.05	7	<5	<5	<5	<5	<5	<5	<5
% RPD	25 000 2002	02-10-2	01102-10	0.4-0.5	0	<>	0	<->	<0.2	<0	<5	<5	<0.05	7	<5	<5	<5	<5	<5	<5	<5
70 KI D					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
524195	(Duplicate of 5228	34)			<5	<5	12	<5	0.2	<5	11	<5	0.69	33	<5	<5	13	<5	<5	<5	5
522834	23-Dec-2002	02-16-1	BH02-16	0.0-0.2	<5	<5	12	<5	0.3	<5	11	<5	0.68	34	<5	<5	16	<5	<5	-05	5
% RPD					0	0	0	0	40.0	0	0	0	1.5	3.0	0	0	20.7	0	0	0	0
524197	(Duplicate of 5228	49)			<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	6	-5		7	-5	-5	-15	-5
522849	23-Dec-2002	02-22-1	BH02-22	0.0-0.2	<5	<5	<5	<5	<0.2	<5	-5	<5	<0.05	7	-5	-5	7		-5	5	<>
% RPD					0	0	0	0	0	0	0	0	0	15.4	0	0	0	0	0	0	<5
524192	(Spike of 522805)				94	80	110	84	85	05	82	01	1.2	110							
Expected					87	85	04	80	80	05	02	01	1.5	110	81	85	91	87	77	82	98
% Recovery					115	0/ 1	120	105	106	104	06.0	04	1.5	110	80	83	92	80	80	81	92
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<5	<5	14	<5	<0.2	<5	93.0 6	96.4 <5	0.49	32	101 <5	102 <5	98.8 12	109	96.3 <5	101	108
524194	(Snike of 522820)				80	07					100		0.000				19				**
Expected	(opine 0) 522020).				80	80	70	/6	11	83	88	71	0.85	84	77	79	82	83	76	79	81
% Recovery					80	83	83	80	80	81	83	80	0,80	87	81	81	83	80	80	81	80
522820	23-Dec-2002	02.10.2	PU02 10	0405	100	104	84.3	95.0	96.3	102	106	88.8	106	96.3	95.1	97.5	98.8	104	95.0	97.5	101
522020	25-2002	02-10-2	BH02-10	0.4-0.5	<5	<5	<5	<5	<0.2	<5	<5	<5	<0.05	7	<5	<5	<5	<5	<5	<5	-5
524196	(Spike of 522834)				81	93	83	75	78	92	100	76	14	120	70	00	05	02			
Expected					82	84	92	80	80	85	01	84	1.4	110	10	00	95	83	82	82	84
% Recovery					98.8	111	88.8	93.8	97.5	108	111	00 5	070	117	06.7	04	90	80	80	81	85
522834	23-Dec-2002	02-16-1	BH02-16	0.0-0.2	<5	<5	12	<5	0.3	<5	11	. <5	0.68	34	96.3 <5	<5	98.8 16	104	103	101	98.8
524198	(Spike of 522849)				77	05	70		76												-
Expected	a frank a second of				80	81	85	13	70	84	89	/4	0.81	87	75	80	89	82	80	79	77
% Recovery					06.3	105	020	01 7	00	80	82	83	0.80	87	81	81	87	80	80	81	80
522849	23-Dec-2002	02-22-1	BH02-22	0.0-0.2	-5		94.9	71.5	93.0	105	109	89.2	101	100	92.6	98.8	103	103	100	97.5	96.3
	0.001010101		D1104-22	0.0-0.2	~	~	~-3	c)	<0.2	<>	<5	<5	<0.05	7	<5	<5	7	<5	<5	5	~5


Date : 6-Jan-2003

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## **QUALITY ASSURANCE REPORT**

TPH

C15-C28

<50

TPH

C29-C36

<50

WSL Report No: 522805 WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL LAB NUM Reference Sample BH No. TPH Depth (m) TPH C6-C9 C10-C14 523728 23-Dec-2002 BLANK <20 <20

523729 (Spike of 523728) 280 Expected 310 % Recovery 90.3 23-Dec-2002 523728 QC SPIKE <50

A blank space indicates no test performed

**Wol**Consultants<sup>TM</sup> Enviroscience



## **QUALITY ASSURANCE REPORT**

Date : 6-Jan-2003

WSL Report No: 522805 WSL JobNumber: 15319

319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Reference	Sample	BH No.	Depth (m)	NAP	ACY	ACE	FLU	PHE	ANT	FLA	PYR	BAA	CHR	BBF	BKF	BAP	DBA	BGP	IPY	TOTAL* PAH
523728	23-Dec-2002	BLANK			<0,1	<0.1	<0.1	<0.1	<0.1	<0,1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
523751	(Duplicate of 5)	2856)	Duras e i		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1
% RPD	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1 0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<1
523729	(Spike of 52372	8)			1.1	1.1	1.1	1.0	1.1	1.1	1.2	1.3	1.4	1.2	11	1.3	12	11		13	10
Expected % Recovery					1.3 84.6	1.3 84.6	1.3 84.6	1.3	1.3 84.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1,3	1.3	1.3	1.3	20
523728	23-Dec-2002	QC SPIKE			~:0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	84.0 <0.1	-0.1	95.0 <1
523752	(Spike of 52285	6)			1.2	1.4	1.3	1.3	1.3	1.4	1.5	1,5	1.4	1.4	1.3	1.5	1.4	14	14	13	22
Expected					1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	22
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	85.7 <0.1	100 <0.1	92.9 <0.1	92.9 <0.1	92.9 <0.1	100 <0.1	107 <0.1	107 <0.1	100 <0.1	100 <0,1	92.9 <0.1	107 <0.1	100 <0.1	100 <0.1	100 <0.1	92.9 <0,1	100 <1

\* Total PAH's refers only to the sum of individual PAH's tested above.

A blank space indicates no test performed

Results expressed as mg/kg dry weight

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## **QUALITY ASSURANCE REPORT**

#### Date : 6-Jan-2003

WSL Report No: 522805

WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

523728       23-Dec-2002       BLANK       <0.05	LAB NUM	Reference	Sample	BH No.	Depth (m)	HCB	a-BHC	LINDANE	HEPTACHLOR	ALDRIN	b-BHC	d-BHC	HEPTACHLOR- EPOXIDE	DDE	DIELDRIN
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	523728	23-Dec-2002	BLANK			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
522805       23-Dec-2002       02-5-1       BH02-5       0.0-0.2       <0.05	523750	(Duplicate of 522	805)			< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-0.05
$^{9}$ RPD000	522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
523751 522856 23-Dec-2002       (Duplicate of 522856) 23-Dec-2002       02-24-1       BH02-24       0.0-0.2       <0.05 <0.05 0       <0.05 0.05 0       <0.05 0.05 0       <0.05 0.05 0       <0.05 0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05	% RPD					0	0	0	0	0	0	0	0	0	0.05
522856 % RPD       23-Dec-2002       02-24-1       BH02-24       0.0.0.2       <0.05 0       <0.05	523751	(Duplicate of 522	856)			< 0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05	<0.05
% RPD       0 <td>522856</td> <td>23-Dec-2002</td> <td>02-24-1</td> <td>BH02-24</td> <td>0.0-0.2</td> <td>&lt; 0.05</td> <td>&lt; 0.05</td> <td>&lt; 0.05</td> <td>&lt; 0.05</td> <td>&lt; 0.05</td> <td>&lt; 0.05</td> <td>&lt;0.05</td> <td>&lt;0.05</td> <td>&lt;0.05</td> <td>&lt;0.05</td>	522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05	<0.05
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	% RPD					0	0	0	0	0	0	0	0	0	0
Expected       2.5       2.5       2.5       2.5       1.3       2.5       1.3       1.3         % Recovery       84.0       88.0       84.0       84.0       108       88.0       100       100       92.3         523728       23-Dec-2002       QC SPIKE       0.05       <0.05	523729	(Spike of 523728)				2.1	2.2	2.1		1.4	22	25	13	12	1.2
% Recovery       84.0       88.0       84.0       84.0       84.0       84.0       108       88.0       100       100       92.3         523728       23-Dec-2002       QC SPIKE       <0.05	Expected					2.5	2.5	2.5		1.3	2.5	2.5	1.3	13	1.2
523728       23-Dec-2002       QC SPIKE       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05       <0.05         523752       (Spike of 522856)       1.3       1.3       1.3       1.3       1.2       1.3       1.2       1.3       1.3       1.3	% Recovery					84.0	88.0	84.0		108	88.0	100	100	023	02.3
523752 (Spike of 522856)       1.3       1.3       1.3       1.2       1.3       1.2       1.1       1.3       1.3	523728	23-Dec-2002	QC SPIKE			<0.05	< 0.05	< 0.05		<0.05	< 0.05	< 0.05	<0.05	<0.05	<0.05
Expected	523752	(Spike of 522856)				1.3	1.3	1.3	12	13	12	in.	12	1.2	1.2
	Expected					1.4	1.4	1.4	14	14	1.2	1.4	1.5	1.5	1.3
% Recovery 92.9 92.9 92.9 85.7 92.9 85.7 78.6 02.0 02.0	% Recovery					92.9	92.9	92.9	85.7	92.9	85.7	78.6	02.0	02.0	1.4
522856 23-Dec-2002 02-24-1 BH02-24 0.0-0.2 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05	522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05



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## **QUALITY ASSURANCE REPORT**

Date : 6-Jan-2003

WSL Report No: 522805

WSL JobNumber: 15319 Client: Beveridge Williams & Co. Pty. Ltd. Job Reference: D8610 - OAKLEIGH STH PRIMARY SCHOOL

LAB NUM	Reference	Sample	BH No.	Depth (m)	DDD	DDT	ENDRIN	METHOXYCHLOR	CHLORDANE	a-ENDO- SULPHAN	b-ENDO- SULPHAN	ENDOSULPHAN SULPHATE	ENDRIN ALDEHYDE
523728	23-Dec-2002	BLANK			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
523750	(Duplicate of 522	805)			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.05
522805	23-Dec-2002	02-5-1	BH02-5	0.0-0.2	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
% RPD					0	0	0	0	0	0	0	0	0
523751	(Duplicate of 522	856)			<0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	<0.05	< 0.05
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
% RPD					0	0	0	0	0	0	0	0	0
523729	(Spike of 523728)	)			1.0				2.7	1.2	1.2	1.2	1.2
Expected					1.3				2.5	1.3	1.3	1.3	1.3
% Recovery					76.9				108	92.3	92.3	92.3	92.3
523728	23-Dec-2002	QC SPIKE			<0.05				<0.05	<0.05	< 0.05	< 0.05	< 0.05
523752	(Spike of 522856,	).			1.5		1.3		2.8	1.3	1.3		1.3
Expected					1.4		1.4		2.8	1.4	1.4		1.4
% Recovery					107		92.9		100	92.9	92.9		92.9
522856	23-Dec-2002	02-24-1	BH02-24	0.0-0.2	<0.05		<0.05		< 0.05	<0.05	<0.05		< 0.05



## CERTIFICATE OF ANALYSIS

CONTACT: MR DARREN PENDERGAST CLIENT: BEVERIDGE WILLIAMS & CO P/L ADDRESS: P.O.BOX 2205

CAULFIELD JUNCTION VIC 3161

ORDER No.: D8610 PROJECT: OAKLEIGH SOUTH BATCH: SUB BATCH: LABORATORY: DATE RECEIVED: DATE COMPLETED: SAMPLE TYPE: No. of SAMPLES: EM15149 0 MELBOURNE 18/12/2002 03/01/2003 SOIL 1

#### COMMENTS

All analysis and Laboratory QC conducted in accordance with Schedule

B(3) NEPM Guideline on Laboratory Analysis of Potentially Contaminated

Soil (December 1999). Samples analysed on an as received basis.

Results reported on a dry weight basis.

#### NOTES

This is the Final Report and supersedes any preliminary reports with this batch number. All pages of this report have been checked and approved for release.

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Signatory

#### LABORATORIES

#### AUSTRALASIA

Brisbane Melbourne Sydney Newcastle Auckland Hong Kong Singapore Kuala Lumpur Bogor Mumbai AMERICAS Vancouver Santiago Antofagasta Lima

Australian Laboratory Services Pty Ltd (ABN 84 009 936 029)

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Page 1 of 6

# Batch:EM15149Sub Batch:0Date of Issue:03/01/2003Client:BEVERIDGE WILLIAMS & CO P/LClient Reference:OAKLEIGH SOUTH

## CERTIFICATE OF ... NALYSIS



					SAMPLE IDENTIFICATION
		Laborat	ory I.D.	1	
		Date Sa	ampled	18/12/2002	
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	02-5-1A	
EA-055	Moisture Content (dried @ 103'C)	%	0.1	4.9	
EG-005T	Arsenic - Total	mg/kg	1	3	
EG-005T	Boron - Total	mg/kg	1	6	
EG-005T	Barium - Total	mg/kg	1	12	
EG-005T	Beryllium - Total	mg/kg	1	<1	
EG-005T	Cadmium - Total	mg/kg	1	<1	
EG-005T	Cobalt - Total	mg/kg	1	1	
EG-005T	Chromium - Total	mg/kg	1	3	
EG-005T	Copper - Total	mg/kg	1	4	
EG-005T	Manganese - Total	mg/kg	1	23	
EG-005T	Molybdenum - Total	mg/kg	1	<1	
EG-005T	Nickel - Total	mg/kg	1	2	
EG-005T	Lead - Total	mg/kg	1	11	
EG-005T	Antimony - Total	mg/kg	1	<1	
EG-005T	Selenium - Total	mg/kg	1	<1	
EG-005T	Tin - Total	mg/kg	1	<1	
EG-005T	Zinc - Total	mg/kg	1	19	
EG-035T	Mercury - Total	mg/kg	0.1	0.4	

Batch:	EM15149			),	)			
Sub Batch:	0				Q	JALITY	ONTRU REPORT	
Date of Issu	e: 03/01/2003							
Client:	BEVERIDGE W	ILLIAMS &	CO P/L					(ALS)
<b>Client Refer</b>	ence: OAKLEIGH SO	UTH						
							SAMPLE IDENTIFICATION	
		Laborate	ory I.D.	200	201	202		
		Date Sa	Impled	18/12/2002	18/12/2002	18/12/2002		
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	BLANK	LCS	MS		
							CHECKS AND SPIKES	-
EA-055 N	foisture Content (dried @ 103'C)	%	0.1	1	1	1		
EG-005T A	rsenic - Total	mg/kg	-	2	111%	95.0%		
EG-005T B	oron - Total	mg/kg	4	7	1	92.0%		
EG-005T B	arium - Total	mg/kg	-	4	99.0%	Not Det'd		
EG-005T B	eryllium - Total	mg/kg	-	7	I	I		
EG-005T C	admium - Total	mg/kg		4	102%	95.0%		
EG-005T C	obalt - Total	mg/kg	-	4	1	94.0%		
EG-005T C	hromium - Total	mg/kg	4	5	97.0%	109%		
EG-005T C	opper - Total	mg/kg	4	4	98.0%	96.0%		
EG-005T N	1anganese - Total	mg/kg	1	4		97.0%		
EG-005T N	folybdenum - Total	mg/kg	1	4	1	86.0%		
EG-005T N	lickel - Total	mg/kg	-	<u>\</u>	99.0%	94.0%		
EG-005T	ead - Total	mg/kg	4	4	99.0%	103%		
EG-005T A	ntimony - Total	mg/kg	4	4	l	1		
EG-005T S	ielenium - Total	mg/kg	4	4	I	I		
EG-005T T	in - Total	mg/kg	4	4	Ì	I		
EG-005T Z	Inc - Total	mg/kg	4	4	94.0%	81.0%		
EG-035T N	Aercury - Total	mg/kg	0.1	<0.1	102%	82.0%		

Australian Laboratory Services Pty Ltd (ABN 84 009 936 029)

Page 3 of 6



## CERTIFICATE OF ANALYSIS

CONTACT: MR DARREN PENDERGAST CLIENT: BEVERIDGE WILLIAMS & CO P/L ADDRESS:

P.O.BOX 2205 CAULFIELD JUNCTION VIC 3161

ORDER No.: D8610 PROJECT: OAKLEIGH SOUTH BATCH: SUB BATCH: LABORATORY: DATE RECEIVED: DATE COMPLETED: SAMPLE TYPE: No. of SAMPLES: EM15149 1 MELBOURNE 18/12/2002 03/01/2003 SOIL 1

#### COMMENTS

All analysis and Laboratory QC conducted in accordance with Schedule

B(3) NEPM Guideline on Laboratory Analysis of Potentially Contaminated

Soil (December 1999). Samples analysed on an as received basis.

Results reported on a dry weight basis.

#### NOTES

This is the Final Report and supersedes any preliminary reports with this batch number. All pages of this report have been checked and approved for release.

#### ISSUING LABORATORY: MELBOURNE

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Page 4 of 6

#### Batch:

#### EM15149

1

Sub Batch:

### Date of Issue:

Client:

**Client Reference:** 

03/01/2003 **BEVERIDGE WILLIAMS & CO P/L** OAKLEIGH SOUTH

## CERTIFICATE OF ... NALYSIS



					SAMPLE IDENTIFICATION
		Laborat	ory I.D.	1	
		Date Sa	mpled	18/12/2002	
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	02-5-1A	
EA-055 EP-068A-SS	Moisture Content (dried @ 103'C) ORGANOCHLORINE PESTICIDES	%	0.1	4.9	
EP-068A-SS	alpha-BHC	mg/kg	0.05	< 0.05	
EP-068A-SS	НСВ	mg/kg	0.05	< 0.05	
EP-068A-SS	beta-BHC & gamma-BHC	mg/kg	0.1	<0.1	
EP-068A-SS	delta-BHC	mg/kg	0.05	<0.05	
EP-068A-SS	Heptachlor	mg/kg	0.05	< 0.05	
EP-068A-SS	Aldrin	mg/kg	0.05	<0.05	
EP-068A-SS	Heptachlor epoxide	mg/kg	0.05	<0.05	
EP-068A-SS	Chlordane - trans	mg/kg	0.05	<0.05	
EP-068A-SS	Endosulfan 1	mg/kg	0.05	<0.05	
EP-068A-SS	Chlordane - cis	mg/kg	0.05	<0.05	
EP-068A-SS	Dieldrin	mg/kg	0.05	0.11	
EP-068A-SS	DDE	mg/kg	0.05	<0.05	
EP-068A-SS	Endrín	mg/kg	0.05	<0.05	
EP-068A-SS	Endosulfan 2	mg/kg	0.05	<0.05	
EP-068A-SS	DDD	mg/kg	0.05	<0.05	
EP-068A-SS	Endrin aldehyde	mg/kg	0.05	<0.05	
EP-068A-SS	Endosulfan sulfate	mg/kg	0.05	<0.05	
EP-068A-SS	DDT	mg/kg	0.2	<0.2	
EP-068A-SS	Endrin ketone	mg/kg	0.05	<0.05	
EP-068A-SS	Methoxychlor	mg/kg	0.2	<0.2	
EP-068S-SS	ORGANOCHLORINE PESTICIDE SURR	OGATE			
EP-068S-SS	Dibromo-DDE	%	1	108	

#### Batch:

Sub Batch:

### Date of Issue:

Client:

BEVERIDGE WILLIAMS & CO P/L **Client Reference:** 

1

EM15149

03/01/2003

OAKLEIGH SOUTH

## QUALITY CONTRU \_ REPORT



								SAMPLE IDENT	TIFICATION
		Laborat	tory I.D.	100	101	102	103	104	
		Date Sa	ampled	18/12/2002	18/12/2002	18/12/2002	18/12/2002	18/12/2002	
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	METHOD BLANK	VOCOPS311 SCS	VOCOPS311 DCS	VOCOPS311 MS	VOCOPS311 MSD	
							(	HECKS AND SPI	IKES
EA-055	Moisture Content (dried @ 103'C)	%	0.1						
EP-068A-SS	ORGANOCHLORINE PESTICIDES								
EP-068A-SS	alpha-BHC	mg/kg	0.05	<0.05	105%	118%			
EP-068A-SS	НСВ	mg/kg	0.05	<0.05	111%	121%		· · · · · · · · · · · · · · · · · · ·	
EP-068A-SS	beta-BHC & gamma-BHC	mg/kg	0.1	<0.1	107%	125%	110%	112%	
EP-068A-SS	delta-BHC	mg/kg	0.05	<0.05	109%	121%	100		
EP-068A-SS	Heptachlor	mg/kg	0.05	<0.05	110%	120%	121%	114%	
EP-068A-SS	Aldrin	mg/kg	0.05	<0.05	109%	120%	97.4%	94.2%	
EP-068A-SS	Heptachlor epoxide	mg/kg	0.05	< 0.05	111%	119%			
EP-068A-SS	Chlordane - trans	mg/kg	0.05	<0.05	115%	121%			
EP-068A-SS	Endosulfan 1	mg/kg	0.05	<0.05	116%	119%			
EP-068A-SS	Chlordane - cis	mg/kg	0.05	<0.05	115%	120%			
EP-068A-SS	Dieldrin	mg/kg	0.05	<0.05	115%	124%	149%	148%	
EP-068A-SS	DDE	mg/kg	0.05	<0.05	115%	120%			
EP-068A-SS	Endrin	mg/kg	0.05	<0.05	119%	124%	154%	153%	
EP-068A-SS	Endosulfan 2	mg/kg	0.05	<0.05	135%	123%			
EP-068A-SS	DDD	mg/kg	0.05	<0.05	117%	121%			
EP-068A-SS	Endrin aldehyde	mg/kg	0.05	<0.05	119%	122%			
EP-068A-SS	Endosulfan sulfate	mg/kg	0.05	<0.05	121%	122%			
EP-068A-SS	DDT	mg/kg	0.2	<0.2	126%	120%	245%	228%	
EP-068A-SS	Endrin ketone	mg/kg	0.05	<0.05	117%	121%			
EP-068A-SS	Methoxychlor	mg/kg	0.2	<0.2	127%	111%			
EP-068S-SS	ORGANOCHLORINE PESTICIDE SURR	OGATE	10.000						
EP-068S-SS	Dibromo-DDE	%	1	125	106	113	88	84	



#### ORGANICS QUALITY CONTROL REPORT

BATCH NO: EM15149

### DATE BATCH RECEIVED: 18/12/2002

CLIENT: Beveridge Williams

DATE BATCH COMPLETED: 3/01/2003

PROJECT: Oakleigh South

Method	Test	Matrix	Method	Reference	QC Lot Number	Date	Date
Code			Extraction	Analysis		Extracted	Analysed
EP-068	Pesticides	Soil	Tumbler	USEPA 8270B	VOCOPS311	24/12/2002	24/12/2002

Where applicable, internal standards are added to sample extracts prior to instrumental analysis. Absolute peak areas and retention times fall within the criteria specified in the individual methods. Continuing Calibration (CC) standards are run at the frequency of 1 in every 20 samples.

Abbreviations: SV = semivolatile, V = volatile

\*: In-house methods

		A	SEP-00	68 : Pesti	cides				
QC LOT No. :	VOCOPS	5311			ANALYST	S.MCG	RATH		
MATRIX:	Soils								
	Blank	Spike		SPIKE QC	RESULTS		Co	ntrol Lim	its
COMPOUND	Conc	Level	SCS Rec.	DCS Rec.	Average Rec.	RPD	R	ec.	RPD
	mg/kg	mg/kg		%	%	%	Low	High	%
EP068A : OC Pesticid	es					100			
a-BHC	<0.2	0.25	105	118	112	11.7	67.5	126	0 - 20
НСВ	<0.2	0.25	111	121	116	8.62	66.4	128	0 - 20
o- & g-BHC	<0.4	0.5	107	125	116	15.5	69.3	129	0 - 20
d-BHC	<0.2	0.25	109	121	115	10.4	77.4	128	0 - 20
Heptachlor	<0.2	0.25	110	120	115	8.7	71.7	129	0 - 20
Aldrin	<0.2	0.25	109	120	115	9.61	78.3	129	0 - 20
Heptachlor epoxide	<0.2	0.25	111	119	115	6.96	73.9	133	0 - 20
Chlordane peak no 1	<0.2	0.25	115	121	118	5.08	76.7	134	0 - 20
Endosulfan 1	<0.2	0.25	116	119	118	2.55	76	132	0 - 20
Chlordane peak no. 2	<0.2	0.25	115	120	118	4.26	73.5	135	0 - 20
Dieldrin	<0.2	0.25	115	123	119	6.72	78.5	134	0 - 20
DDE	<0.2	0.25	115	120	118	4.26	81.3	127	0 - 20
Endrín	<0.2	0.25	119	124	122	4.12	71.5	139	0 - 20
Endosulfan 2	<0.2	0.25	135	123	129	9.3	76.7	131	0 - 20
DD	<0.2	0.25	117	121	119	3.36	79.1	129	0 - 20
Endrin aldehyde	<0.2	0.25	119	122	121	2.49	75.7	132	1 - 20
ndosulfan sulfate	<0.2	0.25	121	122	122	0.82	72.7	139	0 - 20
DT	<0.2	0.25	126	120	123	4.88	66.4	136	0 - 20
ndrin ketone	<0.2	0.25	117	121	119	3.36	67.6	136	0 - 20
lethoxychlor	<0.2	0.25	127	111	119	13.4	63.9	130	0 - 20

#### Dibromo-DDE COMMENTS:

1) The recovery control limits are based on ALS laboratory statistical data. (Method QWI-ORG/07)

106

113

110

77.6 122

0 - 20

6.39

2) The control limits on RPD (relative percent deviation) are fixed.

3) \* : Recovery or RPD falls outside of the recommended control limits.

125% 0.5

#### BATCH QUALITY CONTROL - DUPLICATE

#### ALS EP-068 : Pesticides

QC LOT	No.	:	
MATRIX	:		
ANALYS	T:		

1

VOCOPS311 Soils S.MCGRATH

		(	C DUPLICATE	RESULTS	
COMPOUND	LOR	EM15059	EM15059	RPD	Cont. Limit
	mg/kg	mg/kg	ma/ka		%
EP068A : OC Pesticides				1000	11. C
a-BHC	0.025	< 0.025	< 0.025	n/a	
НСВ	0.025	<0.025	<0.025	n/a	
b- & g-BHC	0.05	< 0.05	< 0.05	n/a	
d-BHC	0.025	< 0.025	< 0.025	n/a	
Heptachlor	0.025	<0.025	< 0.025	n/a	
Aldrin	0.025	<0.025	<0.025	n/a	
Heptachlor epoxide	0.025	<0.025	<0.025	n/a	
Chlordane peak no 1	0.025	<0.025	<0.025	n/a	
Endosulfan 1	0.025	<0.025	<0.025	n/a	
Chlordane peak no. 2	0.025	<0.025	<0.025	n/a	
Dieldrin	0.025	<0.025	<0.025	n/a	
DDE	0.025	<0.025	<0.025	n/a	1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2
Endrin	0.025	<0.025	<0.025	n/a	
Endosulfan 2	0.025	<0.025	<0.025	n/a	
DDD	0.025	<0.025	<0.025	n/a	1
Endrin aldehyde	0.025	<0.025	<0.025	n/a	· / /· · · · · · · · · · · · ·
Endosulfan sulfate	0.025	<0.025	<0.025	n/a	
DDT	0.1	<0.1	<0.1	n/a	
Endrin ketone	0.025	<0.025	<0.025	n/a	
Methoxychlor	0.1	<0.1	<0.1	n/a	
EP068S : OC Surrogate	1.20		the state of the	1 m	14 600
Dibromo-DDE	1%	92.3%	107%	14.8	0 - 20

Note: The permitted range for RPD (relative percent deviation) is specified in ALS Method QWI-EN/38 and is dependent on the magnitude of results in comparison to the level of reporting:

Result < 10 times LOR, no limit.

Result between 10 and 20 times LOR, 0% - 50%.

Results > 20 times LOR, 0% - 20%.

BATCH	QUALITY	CONTR	OL	MATRIX	SPIKE/DUPI	.ICATE	
QC LOT No. : MATRIX:	ALS EP-068 VOCOPS Soils	: <b>Semiv</b> 3311	olatile (	Organic Co	ompounds ANALYST : Sample ID:	S.MCGI	RATH EM15059-1
	Sample	Spike		SPIKE Q	C RESULTS	1.279	Cont. Limit
COMPOUND	Results	Level	MS Rec.	MSD Rec.	Average Rec.	RPD	RPD
	mg/kg	mg/kg	%	%	%	%	%
EP068A : OC Pesticide	S	16 1					
b- & g-BHC	< 0.05	0.25	110	112	111	1.8	0 - 20
Heptachlor	<0.025	0.25	121	114	118	5.96	0 - 20
Aldrin	<0.025	0.25	97.4	94.2	95.8	3.34	0 - 20
Dieldrin	<0.025	0.25	149	148	149	0.673	0 - 20
Endrin	< 0.025	0.25	154	153	154	0.651	0 - 20
DDT	<0.1	0.25	245	228	237	7.19	0 - 20
EP068S : OC Surrogate			100	Fer State		1	
Dibromo-DDE	83.9%	0.5	87.8	84	85.9	4.42	0 - 20

#### COMMENTS:

1) The RPD control limits are fixed.

2) \*: RPD falls outside the recommended control limit.



## CERTIFICATE OF ANALYSIS

CONTACT: MR DARREN PENDERGAST CLIENT: BEVERIDGE WILLIAMS & CO P/L ADDRESS:

P.O.BOX 2205 CAULFIELD JUNCTION VIC 3161

ORDER No.: D8610 PROJECT: OAKLEIGH SOUTH BATCH: SUB BATCH: LABORATORY: DATE RECEIVED: DATE COMPLETED: SAMPLE TYPE: No. of SAMPLES: EM15150 0 MELBOURNE 19/12/2002 09/01/2003 SOIL 1

#### COMMENTS

All analysis and Laboratory QC conducted in accordance with Schedule B(3) NEPM Guideline on Laboratory Analysis of Potentially Contaminated Soil (December 1999). Samples as received digested by USEPA method 200.2 (modified) prior to the determination of metals. Results reported on a dry weight basis.

#### NOTES

This is the Final Report and supersedes any preliminary reports with this batch number. All pages of this report have been checked and approved for release.

#### ISSUING LABORATORY: MELBOURNE

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 keith.evans@alsenviro.com

Signatory

## 

#### LABORATORIES

#### AUSTRALASIA

Brisbane Melbourne Sydney Newcastle Auckland Hong Kong Singapore Kuala Lumpur Bogor Mumbai AMERICAS Vancouver Santiago Antofagasta Lima

Australian Laboratory Services Pty Ltd (ABN 84 009 936 029)

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Page 1 of 6

#### Batch:

#### EM15150

Sub Batch:	
Date of Issue:	
Client:	
Client Reference:	

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0
09/01/2003
<b>BEVERIDGE WILLIAMS &amp; CO P/L</b>
OAKLEIGH SOUTH
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## CERTIFICATE OF NALYSIS



					SAMPLE IDENTIFICATION
		Laboratory I.D.		1	
		Date Sa	ampled	19/12/2002	
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	02-24-1A	
EA-055	Moisture Content (dried @ 103'C)	%	0.1	6.5	
EG-005T	Arsenic - Total	mg/kg	1	6	
EG-005T	Boron - Total	mg/kg	1	<1	
EG-005T	Barium - Total	mg/kg	1	24	
EG-005T	Beryllium - Total	mg/kg	1	<1	
EG-005T	Cadmium - Total	mg/kg	1	<1	
EG-005T	Cobalt - Total	mg/kg	1	7	
EG-005T	Chromium - Total	mg/kg	1	20	
EG-005T	Copper - Total	mg/kg	1	11	
EG-005T	Manganese - Total	mg/kg	11	195	
EG-005T	Molybdenum - Total	mg/kg	1	1	
EG-005T	Nickel - Total	mg/kg	1	29	
EG-005T	Lead - Total	mg/kg	1	10	
EG-005T	Antimony - Total	mg/kg	1	<1	
EG-005T	Selenium - Total	mg/kg	1	1	
EG-005T	Tin - Total	mg/kg	1	<1	
EG-005T	Zinc - Total	mg/kg	1	25	
EG-035T	Mercury - Total	mg/kg	0.1	<0.1	

#### Batch:

#### EM15150

Sub Batch:	0
Date of Issue:	09/01/2003
Client:	BEVERIDGE WILLIAMS & CO P/L
<b>Client Reference:</b>	OAKLEIGH SOUTH

## QUALITY CONTRO \_ REPORT



					-		SAMPLE IDENTIFICATION
		Laborat	ory I.D.	200	201	202	
		Date Sa	ampled	19/12/2002	19/12/2002	19/12/2002	
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	METHOD BLANK	LCS	MS	
							CHECKS AND SPIKES
EA-055	Moisture Content (dried @ 103'C)	%	0.1	<0.1			
EG-005T	Arsenic - Total	mg/kg	1	<1	103%	82.0%	
EG-005T	Boron - Total	mg/kg	1	<1			
EG-005T	Barium - Total	mg/kg	1	<1	96.0%	117%	
EG-005T	Beryllium - Total	mg/kg	1	<1		81.0%	
EG-005T	Cadmium - Total	mg/kg	1	<1	97.0%	98.0%	
EG-005T	Cobalt - Total	mg/kg	1	<1		101%	
EG-005T	Chromium - Total	mg/kg	1	<1	98.0%	100%	
EG-005T	Copper - Total	mg/kg	1	<1	98.0%	119%	
EG-005T	Manganese - Total	mg/kg	1	<1		95.0%	
EG-005T	Molybdenum - Total	mg/kg	1	<1		83.0%	
EG-005T	Nickel - Total	mg/kg	1	<1	97.0%	105%	
EG-005T	Lead - Total	mg/kg	1	<1	101%	99.0%	
EG-005T	Antimony - Total	mg/kg	1	<1			
EG-005T	Selenium - Total	mg/kg	1	<1		92.0%	
EG-005T	Tin - Total	mg/kg	1	<1			
EG-005T	Zinc - Total	mg/kg	1	<1	92.0%	99.0%	
EG-035T	Mercury - Total	mg/kg	0.1	<0.1	101%	108%	

## CERTIFICATE OF ANALYSIS

CONTACT:MR DARREN PENDERGASTCLIENT:BEVERIDGE WILLIAMS & CO P/LADDRESS:

P.O.BOX 2205 CAULFIELD JUNCTION VIC 3161

ORDER No.: D8610 PROJECT: OAKLEIGH SOUTH BATCH: SUB BATCH: LABORATORY: DATE RECEIVED: DATE COMPLETED: SAMPLE TYPE: No. of SAMPLES: EM15150 1 MELBOURNE 19/12/2002 09/01/2003 SOIL 1

#### COMMENTS

All analysis and Laboratory QC conducted in accordance with Schedule

B(3) NEPM Guideline on Laboratory Analysis of Potentially Contaminated

Soil (December 1999). Samples analysed on an as received basis.

Results reported on a dry weight basis.

#### NOTES

This is the Final Report and supersedes any preliminary reports with this batch number. All pages of this report have been checked and approved for release.

#### ISSUING LABORATORY: MELBOURNE

Address Unit 6 / Adamco Business Park 2 Sarton Road Clayton VIC 3168 
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Signatory

#### LABORATORIES

#### AUSTRALASIA

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Australian Laboratory Services Pty Ltd (ABN 84 009 936 029)

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Page 4 of 6

# Batch:EM15150Sub Batch:1Date of Issue:09/01/2003Client:BEVERIDGE WILLIAMS & CO P/LClient Reference:OAKLEIGH SOUTH

## CERTIFICATE OF NALYSIS



				SAMPLE IDENTIFICATION							
		Laborat	tory I.D.	1							
		Date Sa	ampled	19/12/2002							
METHOD	ANALYSIS DESCRIPTION	UNIT	LOR	02-24-1A							
EA-055 EP-068A-SS	Moisture Content (dried @ 103'C) ORGANOCHLORINE PESTICIDES	%	0.1	6.5							
EP-068A-SS	alpha-BHC	mg/kg	0.05	<0.05							
EP-068A-SS	НСВ	mg/kg	0.05	<0.05							
EP-068A-SS	beta-BHC & gamma-BHC	mg/kg	0.1	<0.1							
EP-068A-SS	delta-BHC	mg/kg	0.05	<0.05							
EP-068A-SS	Heptachlor	mg/kg	0.05	<0.05							
EP-068A-SS	Aldrin	mg/kg	0.05	<0.05							
EP-068A-SS	Heptachlor epoxide	mg/kg	0.05	<0.05							
EP-068A-SS	Chlordane - trans	mg/kg	0.05	< 0.05							
EP-068A-SS	Endosulfan 1	mg/kg	0.05	<0.05							
EP-068A-SS	Chlordane - cis	mg/kg	0.05	<0.05							
EP-068A-SS	Dieldrin	mg/kg	0.05	<0.05							
EP-068A-SS	DDE	mg/kg	0.05	<0.05							
EP-068A-SS	Endrin	mg/kg	0.05	<0.05							
EP-068A-SS	Endosulfan 2	mg/kg	0.05	<0.05							
EP-068A-SS	DDD	mg/kg	0.05	< 0.05							
EP-068A-SS	Endrin aldehyde	mg/kg	0.05	<0.05							
EP-068A-SS	Endosulfan sulfate	mg/kg	0.05	<0.05							
EP-068A-SS	DDT	mg/kg	0.2	<0.2							
EP-068A-SS	Endrin ketone	mg/kg	0.05	<0.05							
EP-068A-SS	Methoxychlor	mg/kg	0.2	<0.2							
EP-068S-SS	ORGANOCHLORINE PESTICIDE SURR	OGATE									
EP-068S-SS	Dibromo-DDE	%	1	76							

Batch:

#### EM15150

Sub Batch:	1
Date of Issue:	09/01/2003
Client:	BEVERIDGE WILLIAMS & CO P/L
<b>Client Reference:</b>	OAKLEIGH SOUTH

## QUALITY CONTR \_ REPORT



		1					SAMPLE IDENTIFICATION				
		Laborat	tory I.D.	1	100	101	102	103	104		
		Date Sa	ampled	19/12/2002	19/12/2002	19/12/2002	19/12/2002	19/12/2002	19/12/2002		
METHOD	METHOD ANALYSIS DESCRIPTION	UNIT	LOR	02-24-1A CHK	METHOD BLANK	VOCOPS311 SCS	VOCOPS311 DCS	VOCOPS311 MS	VOCOPS311 MSD		
							C	HECKS AND	SPIKES		
EA-055 EP-068A-SS	Moisture Content (dried @ 103'C) ORGANOCHLORINE PESTICIDES	%	0.1	6.5	-						
EP-068A-SS	alpha-BHC	mg/kg	0.05	<0.05	<0.20	105%	118%	1			
EP-068A-SS	НСВ	mg/kg	0.05	< 0.05	<0.20	111%	121%				
EP-068A-SS	beta-BHC & gamma-BHC	mg/kg	0.1	<0.1	<0.4	107%	125%	110%	112%		
EP-068A-SS	delta-BHC	mg/kg	0.05	<0.05	<0.20	109%	121%				
EP-068A-SS	Heptachlor	mg/kg	0.05	<0.05	<0.20	110%	120%	121%	114%		
EP-068A-SS	Aldrin	mg/kg	0.05	<0.05	<0.20	109%	120%	97.4%	94.2%		
EP-068A-SS	Heptachlor epoxide	mg/kg	0.05	< 0.05	<0.20	111%	119%		01.270		
EP-068A-SS	Chlordane - trans	mg/kg	0.05	< 0.05	<0.20	115%	121%				
EP-068A-SS	Endosulfan 1	mg/kg	0.05	< 0.05	<0.20	116%	119%				
EP-068A-SS	Chlordane - cis	mg/kg	0.05	< 0.05	<0.20	115%	120%				
EP-068A-SS	Dieldrin	mg/kg	0.05	<0.05	<0.20	115%	124%	149%	148%		
EP-068A-SS	DDE	mg/kg	0.05	<0.05	<0.20	115%	120%				
EP-068A-SS	Endrin	mg/kg	0.05	<0.05	<0.20	119%	124%	154%	153%		
EP-068A-SS	Endosulfan 2	mg/kg	0.05	< 0.05	<0.20	135%	123%		10070		
EP-068A-SS	DDD	mg/kg	0.05	0.07	<0.20	117%	121%				
EP-068A-SS	Endrin aldehyde	mg/kg	0.05	<0.05	<0.20	119%	122%				
EP-068A-SS	Endosulfan sulfate	mg/kg	0.05	< 0.05	<0.20	121%	122%				
EP-068A-SS	DDT	mg/kg	0.2	<0.2	<0.2	126%	120%	2450/	2289/		
EP-068A-SS	Endrin ketone	mg/kg	0.05	<0.05	<0.20	117%	121%	24070	220%		
EP-068A-SS	Methoxychlor	mg/ka	0.2	<0.2	<0.2	127%	1110/				
EP-068S-SS	ORGANOCHLORINE PESTICIDE SURR	OGATE	1.1.2			121 /0	11170				
EP-068S-SS	Dibromo-DDE	%	1	107	125	106	113	88	94		



#### **ORGANICS QUALITY CONTROL REPORT**

BATCH NO: EM15150

#### DATE BATCH RECEIVED: 19/12/2002

CLIENT: Beveridge Williams

DATE BATCH COMPLETED: 9/01/2003

PROJECT: Oakleigh South

Method	Test	Matrix	Method	Reference	QC Lot Number	Date	Date
Code			Extraction	Analysis		Samples Extracted	Samples Analysed
EP-068	Pesticides	Soil	Tumbler	USEPA 8270B	VOCOPS311	24/12/2002	24/12/2002

Where applicable, internal standards are added to sample extracts prior to instrumental analysis. Absolute peak areas and retention times fall within the criteria specified in the individual methods. Continuing Calibration (CC) standards are run at the frequency of 1 in every 20 samples.

Abbreviations: SV = semivolatile, V = volatile

\*: In-house methods

#### BATCH QUALITY CONTROL -- CONTROL SPIKE/DUPLICATE

#### ALS EP-068 : Pesticides

QC LOT No. :

VOCOPS311

ANALYST S.MCGRATH

MATRIX:	Soils								
	Blank	Spike	- 5	SPIKE QC	RESULTS		Co	ntrol L	imits
COMPOUND	Conc	Level	SCS Rec.	DCS Rec.	Average Rec.	RPD	Rec.		RPD
	mg/kg	mg/kg		%	%	%	Low	High	%
EP068A : OC Pesticio	les	1.50							
a-BHC	<0.2	0.25	105	118	112	11.7	67.5	126	0 - 20
НСВ	<0.2	0.25	111	121	116	8.62	66.4	128	0 - 20
b- & g-BHC	<0.4	0.5	107	125	116	15.5	69.3	129	0 - 20
d-BHC	<0.2	0.25	109	121	115	10.4	77.4	128	0 - 20
Heptachlor	<0.2	0.25	110	120	115	8.7	71.7	129	0 - 20
Aldrin	<0.2	0.25	109	120	115	9.61	78.3	129	0 - 20
Heptachlor epoxide	<0.2	0.25	111	119	115	6.96	73.9	133	0 - 20
Chlordane peak no 1	<0.2	0.25	115	121	118	5.08	76.7	134	0 - 20
Endosulfan 1	<0.2	0.25	116	119	118	2.55	76	132	0 - 20
Chlordane peak no. 2	<0.2	0.25	115	120	118	4.26	73.5	135	0 - 20
Dieldrin	<0.2	0.25	115	123	119	6.72	78.5	134	0 - 20
DDE	<0.2	0.25	115	120	118	4.26	81.3	127	0 - 20
Endrin	<0.2	0.25	119	124	122	4.12	71.5	139	0 - 20
Endosulfan 2	<0.2	0.25	135	123	129	9.3	76.7	131	0 - 20
DDD	<0.2	0.25	117	121	119	3.36	79.1	129	0 - 20
Endrin aldehyde	<0.2	0.25	119	122	121	2.49	75.7	132	1 - 20
Endosulfan sulfate	<0.2	0.25	121	122	122	0.82	72.7	139	0 - 20
DDT	<0.2	0.25	126	120	123	4.88	66.4	136	0 - 20
Endrin ketone	<0.2	0.25	117	121	119	3.36	67.6	136	0 - 20
Methoxychlor	<0.2	0.25	127	111	119	13.4	63.9	130	0 - 20
EP068S : OC Surroga	te								
Dibromo-DDE	125%	0.5	106	113	110	6.39	77.6	122	0 - 20

COMMENTS:

1) The recovery control limits are based on ALS laboratory statistical data. (Method QWI-ORG/07)

2) The control limits on RPD (relative percent deviation) are fixed.

3) \* : Recovery or RPD falls outside of the recommended control limits.

#### BATCH QUALITY CONTROL - DUPLICATE

#### ALS EP-068 : Pesticides

QC LOT No. : MATRIX : ANALYST: VOCOPS311 Soils S.MCGRATH

		(	QC DUPLICATE RESULTS						
COMPOUND	LOR	EM15150	EM15150	RPD	Cont. Limit				
	mg/kg	mg/kg	mg/kg		%				
EP068A : OC Pesticides					Jan 1				
a-BHC	0.025	<0.025	< 0.025	n/a					
НСВ	0.025	<0.025	< 0.025	n/a					
b- & g-BHC	0.05	< 0.05	<0.05	n/a					
d-BHC	0.025	<0.025	<0.025	n/a					
Heptachlor	0.025	< 0.025	<0.025	n/a					
Aldrin	0.025	<0.025	<0.025	n/a					
Heptachlor epoxide	0.025	< 0.025	< 0.025	n/a	1				
Chlordane peak no 1	0.025	<0.025	<0.025	n/a					
Endosulfan 1	0.025	<0.025	<0.025	n/a	1				
Chlordane peak no. 2	0.025	<0.025	<0.025	n/a					
Dieldrin	0.025	<0.025	<0.025	n/a					
DDE	0.025	0.025	0.0279	11	No limit				
Endrin	0.025	<0.025	< 0.025	n/a					
Endosulfan 2	0.025	<0.025	<0.025	n/a					
DDD	0.025	0.043	0.0666	43.1	No limit				
Endrin aldehyde	0.025	<0.025	<0.025	n/a					
Endosulfan sulfate	0.025	<0.025	< 0.025	n/a					
DDT	0.1	<0.1	<0.1	n/a					
Endrin ketone	0.025	<0.025	<0.025	n/a					
Methoxychlor	0.1	<0.1	<0.1	n/a	1				
EP068S : OC Surrogate	-30	Section Section							
Dibromo-DDE	1%	75.9%	107%	34 *	0 - 20				

Note: The permitted range for RPD (relative percent deviation) is specified in ALS Method QWI-EN/38 and is dependent on the magnitude of results in comparison to the level of reporting:

Result < 10 times LOR, no limit.

Result between 10 and 20 times LOR, 0% - 50%.

Results > 20 times LOR, 0% - 20%.

	ALS EP-068	: Semiv	olatile C	Organic C	ompounds			
QC LOT No. :	VOCOPS	5311			ANALYST :	S.MCG	RATH	
MATRIX:	Soils				Sample ID:	EM15059-1		
	Sample	Spike		SPIKE Q	C RESULTS		Cont. Limit	
COMPOUND	Results	Level	MS Rec.	MSD Rec.	Average Rec.	RPD	RPD	
	mg/kg	mg/kg	%	%	%	%	%	
EP068A : OC Pesticides								
b- & g-BHC	< 0.05	0.25	110	112	111	1.8	0 - 20	
Heptachlor	<0.025	0.25	121	114	118	5.96	0 - 20	
Aldrin	<0.025	0.25	97.4	94.2	95.8	3.34	0 - 20	
Dieldrin	<0.025	0.25	149	148	149	0.673	0 - 20	
Endrin	<0.025	0.25	154	153	154	0.651	0 - 20	
DDT	<0.1	0.25	245	228	237	7.19	0 - 20	
EP068S : OC Surrogate	and the second							
Dibromo-DDE	83.9%	0.5	87.8	84	85.9	4.42	0 - 20	

#### COMMENTS:

E

The RPD control limits are fixed.
 \*: RPD falls outside the recommended control limit.



## Attachment C: HLA 2006

- Figure
- Test Pit Logs



	PROJ PROJ LOCA DRILI SAMF SURF WELL LOGO	LA DECT NU DECT NA TION LING M PLING M ACE EL HEAD GED BY MENTS	HLA 46 C Sout Tele Fax: JMB AME Corr ETH AETH LEV/ /TOC 	-Enviroscier larendon Si h Melbourn phone: 03 i 03 8699 2 ER_M4056 Oakleigh : her Beryl Av OD_Test Pi HOD_GRAE ATION Pritchard, 1	nces treet e, VI0 8699 122 01 South re and it 3	C 3205 2199 h Prima d Bake	ry Sch rs Rd, (	DATE 31/10/2006         Dol         Dakleigh South         SCREEN         GRAVEL PACK         SANITARY SEAL/BENTONITE         STABILISED WATER LEVEL         GROUND WATER ELEVATION	1
	PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								TOPSOIL / fill, silty sand, grey FILL, grey silty sand with gravel and boulder sized basalt fragments, concrete and brick fragments, dry	0.10
	0.0		ES .	TP01_ 0.5				FILL, sandy silty clay, gravel, brick and basalt fragments, dry, sand increasing with depth	0.25
JGS_BNOV06.GPJ HLA_SYD.GDT 05/12/06								SILTY SAND, grey, dry, loose Becoming light grey	
ORING / WELL CONSTRUCTION LOG M4056001_TESTPITLC	0.0		- Carl	TP01_ 1.1		_ 1 _		Becoming brown-grey, very fine grained silty sand Total Depth: 1.20 m	1.20

	H	HL 46 So Te Fa	A-Enviroscie Clarendon S uth Melbourr lephone: 03 x: 03 8699 2	nces treet ie, VI 8699 122	C 3205 2199	i	TEST PIT LOG TP02	1
	PROJ PROJ LOCA	ECT NUN	IBER <u>M4056</u> IE <u>Oakleigh</u> orner Beryl Av	01 Souti /e an	n Prima d Bake	ary Sch rs Rd,	DATE         31/10/2006           ool         BLANK           Oakleigh South         SCREEN	
	DRILI SAMF SURF WELL LOGC COMI	LING MET PLING ME ACE ELE HEAD/T( GED BY _ MENTS _	HOD <u>Test P</u> THOD <u>GRA</u> VATION DC E. Pritchard, <sup>-</sup>	īt Β Γ.Spr	oal		GRAVEL PACK	
	PID (ppm)	BLOW COUNTS RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
	0.0		TP02_ 0.2	*			TOPSOIL / fill, grey silty sand, loose, dry FILL, sandy clay, yellow-brown with red and black mottling, dry, low plasticity, stiff, contains brick and basalt inclusions (< 50 mm)	0.10
ONSTRUCTION LOG M4056001_TESTPITLOGS_BNOV06.GPJ HLA_SYD.GDT 05/12/06	0.0		TP02_ 1.1				Silty SAND, light grey, very dry, loose, becoming denser with depth	1.20
BORING / WELL (								

ŀ		ILA 6 C Sout elep ax:	Enviroscien- larendon Sti h Melbourne phone: 03 8 03 8699 21	ices reet e, VI 699 22	C 3205 2199		TEST PIT LOG TP0	3
PRC PRC LOC DRI SAM SUF	DJECT NU DJECT NA CATION <u>(</u> LLING ME MPLING M RFACE EL LL HEAD/	MB Corr THO ETH EV/	ER M40560 Oakleigh S ner Beryl Ave OD Test Pit HOD GRAB ATION C	01 South e and t	l Prima d Bake	ry Sch rs Rd, (	DATE       31/10/2006         bol       BLANK         Dakleigh South       SCREEN         GRAVEL PACK       GRAVEL PACK         SANITARY SEAL/BENTONITE       STABILISED WATER LEVEL         GROUND WATER ELEVATION       GROUND WATER ELEVATION	
	GED BY	<u>E</u> .	Pritchard, T	.Spro	bal			
PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
0.0							TOPSOIL / fill, grey silty sand, loose, dry FILL, sandy clay, yellow-brown with red and black mottling, dry, low plasticity, stiff, contains brick and basalt inclusions (< 50 mm)	0.10
0.0	4	m M	TP03_ 0.2	*			Silty SAND, light grey, very dry, loose, becoming denser with depth	0.40
0.0	4	ریخ ا	TP03_ 0.7					0.80
2/06					_ 1 _		sandy CLAY, yellow-grey, stiff, very dry, low plasticity, homogeneous	1.00
DRING / WELL CONSTRUCTION LOG M4056001_TESTPITLOGS_8NOV06.GPJ HLA_SYD.GDT 05/1							Total Depth: 1.00 m	

Clarendon Str Clarendon Str Duth Melbourne Elephone: 03 8 ax: 03 8699 21	ces eet :, VIC 3205 699 2199 22	TEST PIT LOG TP0	4
ABER M40560	)1	DATE <u>31/10/2006</u>	
<b>/IE</b> <u>Oakleigh S</u> orner Bervl Ave	outh Primary School and Bakers Rd. Oal	leigh South SCREEN	
THOD Test Pit		GRAVEL PACK	
THOD GRAB		SANITARY SEAL/BENTONITE	
E. Pritchard, T.	Sproal	GROUND WATER ELEVATION	
,			
SAMPLE NUMBER	ANALYSED DEPTH (m BGL) GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT
	$\frac{1}{\sqrt{N}} \cdot \frac{1}{\sqrt{N}}$	TOPSOIL, silty sand, grey, dry, contains rootlets	
		Silty SAND, light grey, very dry, loose, becoming denser with depth	0.10
1 TP04_ 0.4			0.60
		Silty CLAY, mottled orange-brown, medium plasticity, dry, contains rootlets interbedded with grey sandy clay	
0.7		Total Depth <sup>.</sup> 0 80 m	0.80
	Image: Construction of the second structure in the second structure is a second structure in the second structure is constructed and second structure is a second structure is	Interview     Interview       Interview	Treamdown Street And Medicourse Star 128 Star Star 128 Star Star 128 Star Star 128 Star St

HLA-Envirosciences 46 Clarendon Street South Melbourne, VIO Telephone: 03 8699 Fax: 03 8699 2122	IC 3205 9 2199	TEST PIT LOG TP05	5
PROJECT NUMBERM405601 PROJECT NAMEOakleigh South LOCATIONCorner Beryl Ave and DRILLING METHODTest Pit SAMPLING METHOD _GRAB SURFACE ELEVATION WELL HEAD/TOC LOGGED BY _E. Pritchard, T.Spro COMMENTS	h Primary School Id Bakers Rd, Oakleigh South	DATE _31/10/2006 BLANK SCREEN GRAVEL PACK SANITARY SEAL/BENTONITE STABILISED WATER LEVEL GROUND WATER ELEVATION	
PID (ppm) BLOW COUNTS COUNTS RECOVERY SAMPLE NUMBER	DEPTH (m BGL) GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
	C 0     TOPSOIL / fill, grey     Silty SAND, light gr     Sandy CLAY (with     moist, medium plas     Total Depth: 1.00 r	y silty sand, loose, dry rey, very dry, loose, becoming denser with depth some silty clay), grey with orange-brown mottling, slightly sticity n	0.10

BORING / WELL CONSTRUCTION LOG M4056001\_TESTPITLOGS\_BNOV06.GPJ HLA\_SYD.GDT 05/12/06

Н	H LA Fa	LA-Envi 6 Claren outh Me elephon ax: 03 8	roscience Idon Stre Ibourne, e: 03 869 3699 2122	es et VIC 320 99 2199 2	5	TEST PIT LOG TP0	6
PRO PRO LOCA DRIL SAMI SURF WELI LOGO	JECT NUI JECT NAI ATION <u>C</u> LING ME <sup>-</sup> PLING ME FACE ELE L HEAD/T GED BY MENTS _	MBER _[ ME _Oal orner Bo THOD _ THOD _ THOD _ THOD EVATIO OC E. Pritcl	M405601 kleigh So eryl Ave a Test Pit GRAB <b>N</b> hard, T.S	uth Prim and Bake proal	ary Sch ers Rd,	DATE       31/10/2006         ool       BLANK         Oakleigh South       SCREEN         GRAVEL PACK	
PID (ppm)	BLOW COUNTS BECOVEDV	SAMPLE	NUMBER	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
				_		TOPSOIL / fill, grey silty clay, dry FILL, silty sand, grey, loose, dry, contains brick inclusions	0.10
0.0	<i>u</i>	n TF 7 (	206_ 0.5	-		FILL, silty clay, grey-brown, dry, contains bitumen and brick inclusions, very heterogeneous	0.30
0.0 0.0	2 M	n TF 2 (	206_ 0.8	- 1 -		Sandy CLAY, mottled brown-orange-grey, moist, possibly disturbed/re-worked natural material	1 10
01_TESTPITLOGS_8NOV06.GPJ_HLA_SYD.0		TF 1	206_ 1.3	-		Silty CLAY, dark grey, loose, slighty moist Total Depth: 1.40 m	1.40
BORING / WELL CONSTRUCTION LOG M40560							

	HLA	HLA 46 C Sour Tele Fax:	Enviroscier Clarendon St th Melbourn phone: 03 8 03 8699 2	nces treet e, VI 8699 122	C 3205 2199	i	TEST PIT LOG TP07	,
PR LO DR SA SU WE LO CO	COJECT COJECT CATION RILLING MPLING IRFACE ELL HE OGGED	NUME NAME N Corr METH G METH G MET ELEV AD/TO BY E. TS	BER_M4056 <u>Oakleigh</u> 3 ner Beryl Av OD_Test Pi HOD_GRAE ATION Pritchard, T	01 South re and it 3	n Prima d Bake	ary Scho rs Rd, (	DATE _31/10/2006 Dol BLANK Dakleigh South SCREEN GRAVEL PACK SANITARY SEAL/BENTONITE STABILISED WATER LEVEL GROUND WATER ELEVATION	
(man) (DIA	BLOW	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
0.	0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TP07_ 0.2	*			TOPSOIL / fill, grey slits sand, roots FILL, gravel sized crushed rock in silty sandy matrix, contains concrete pieces and brick fragments	_0.10
2 BNOV06.GPJ HLA_SYD.GDT 05/12/06 .0	0		TP07_ 1.1				FILL, silty sand, dark grey, contains brick and concrete pieces         FILL, sandy clay, brown and orange mottling         Silty SAND, fine grained, dark grey/grey-brown.         Becoming light grey fine grained silty sand         Total Depth: 1.30 m	0.40 0.70 0.80 1.00
BORING / WELL CONSTRUCTION LOG M4056001_TESTPITL OGS								

	PROJ		HL/ Sou Tel Fax <b>UM</b> <b>AM</b>	A-Enviroscier Clarendon S uth Melbourn ephone: 03 :: 03 8699 2 BER M4056 E Oakleigh rner Bervl Av	nces treet e, VI 8699 122 01 <u>South</u> ye and	C 3205 2199 <u>n Prima</u> d Bake	ary Sch	DATE <u>31/10/2006</u> BLANK Oakleigh South SCREEN	<b>,</b>
	DRILI SAMF SURF WELL LOGO	LING M PLING ACE E HEAD BED BY MENTS		HOD <u>Test P</u> THOD <u>GRAB</u> /ATION C . Pritchard, 1	it 3 T.Spro	oal		GRAVEL PACK SANITARY SEAL/BENTONITE STABILISED WATER LEVEL GROUND WATER ELEVATION	
	PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
	0.0		(3 (3	TP08_ 0.3	*			TOPSOIL / fill, grey silty clay, dry FILL, dark brown clay with orange mottling and large concrete pieces. Thin layer of concrete/sand at 0.2 m.	_0.10
								SILTY SAND, dark grey, dry, loose	_0.50
PITLOGS_8NOV06.GPJ HLA_SYD.GDT 05/12/06	0.0		(33) (33)	TP08_ 1.1		_ 1 _		Total Depth: 1.20 m	_1.20
BORING / WELL CONSTRUCTION LOG M4056001_TEST									

F	ILA	HLA 46 ( Sou Tele Fax	A-Enviroscien Clarendon Str th Melbourne ephone: 03 8 : 03 8699 21	ices reet e, VI 8699 22	C 3205 2199	i	TEST PIT LOG TP09	
PRO			BER M4056	<u>)1</u>	Drime	n Cob	DATE <u>31/10/2006</u>	
LOC	CATION	Cor	ner Beryl Av	e an	d Bake	rs Rd,	Dakleigh South SCREEN	
DRI	LLING M IPLING	IETH MET	IOD <u>Test Pit</u> HOD GRAB	t }			GRAVEL PACK SANITARY SEAL/BENTONITE	
SUF	RFACE E	LEV					STABILISED WATER LEVEL	
	LL HEAD GED B	)/ТО ( Е.	C Pritchard, T	.Spr	oal		GROUND WATER ELEVATION	
cor	MENTS	;						
PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
						<u>1/</u> <u>1/</u> <u>1</u> /	TOPSOIL / fill, silty sand, brown-grey, contains rootlets	0 10
0.0		23 23	TP09_ 0.4	*			FILL, sandy clay, grey brown with orange and red mottling, basalt, brick and concrete inclusions (< 50mm)	
HLA_SYD.GDT 05/12/06 0.0		87 19	TP09_ 1.0		- 1 -		Silty SAND, dark grey, loose, dry	0.90
BORING / WELL CONSTRUCTION LOG M4056001_TESTPITLOGS_8NOV06.GPJ 1-					⊢ .		Total Depth: 1.20 m	1.20

Н	HLA 46 0 Sou Tele Fax	A-Enviroscien Clarendon Str hth Melbourne ephone: 03 8 : 03 8699 21	ces reet e, VIC 3205 699 2199 22		TEST PIT LOG	TP10		
PRO PRO LOCA DRIL SAMI SURF WELI LOGO	JECT NUME JECT NAME ATION <u>Cor</u> LING METH PLING MET FACE ELEV LHEAD/TO GED BY <u>E</u>	BER M40560 Cakleigh S ner Beryl Ave IOD Test Pit HOD GRAB (ATION C . Pritchard, T.	01 South Primary e and Bakers Sproal	School Rd, Oakleigh South	DATE <u>31/10/2006</u> BLANK SCREEN GRAVEL PACK SANITARY SEAL/BENTONITE GROUND WATER LEVEL GROUND WATER ELEVATION			
(mqq) OIA	BLOW COUNTS RECOVERY	SAMPLE NUMBER	ANALYSED DEPTH (m BGL)		LITHOLOGIC DESCRIPTION	CONTACT		
0.0	500 1	TP10_ 0.3		FILL, sandy cla	ay, brown-orange with red mottling	0.10		
	The second se	TP10_ 1.0	- 1 -	Total Depth: 1.	grey silty sand	0.80		
SORING / WELL CONSTRUCTION LOG M4056001_TESTPITLOGS								
PR PR LO DR SA SU WE LO	OJECT OJECT OCATION ILLING IMPLING RFACE ELL HEA IGGED I DMMENT	HL/ 46 Sou Tele Fax NUM NAM I <u>Co</u> METE S MET ELEN SY <u>E</u> SY <u>E</u>	A-Enviroscien Clarendon Sti th Melbourne ephone: 03 8 (: 03 8699 21 BER_M40560 E_Oakleigh S mer Beryl Avi HOD_Test Pit THOD_GRAB /ATION DC Pritchard, T	ces reet 699 22 01 <u>South</u> 6 	C 3205 2199 h Prima d Bake	ry Sch rs Rd, 1	DATE _31/10/2006 DATE _31/10/2006 Dakleigh South SCREEN GRAVEL PACK SANITARY SEAL/BENTONITE STABILISED WATER LEVEL GROUND WATER ELEVATION	
--	---	---	---	---	-------------------------------------	--------------------	---	------------------
PID (nnm)	BLOW	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
0.	0	\$	TP11_ 0.3				TOPSOIL / fill, grey silty sand with rootlets         FILL, sandy clay, grey with orange and brown mottling, contains brick fragments, concrete pieces, large roots and rootlets         Silty SAND, dark grey, dry, loose, contains roots and roorlets	_0.10
RING/WELL CONSTRUCTION LOG M4056001_TESTPITLOGS_8NOV06.GPJ HLA_SYD.GDT 05/12/06 O	0		TP11_ 1.1		- 1		Total Depth: 1.20 m	_1.20

	PROJ PROJ LOCA DRILI SAME SURF WELL LOGO COMI	LA JECT NU JECT NA ATION _ LING MI PLING MI PLING MI ACE EI _ HEAD GED BY MENTS	HLA 46 ( Sou Fax JME Cor ETH MET LEV /TO	A-Enviroscien Clarendon St th Melbourne ephone: 03 8 : 03 8699 21 BER_M40560 E_Oakleigh S ner Beryl Ave IOD_Test Pit HOD_GRAB ATION C . Pritchard, T	aces reet 3699 22 01 <u>South</u> and t	C 3205 2199 n Prima d Bake	ry Sch rs Rd,	DATE       31/10/2006         ool       BLANK         Oakleigh South       SCREEN         GRAVEL PACK       GRAVEL PACK         SANITARY SEAL/BENTONITE       STABILISED WATER LEVEL         GROUND WATER ELEVATION       GROUND WATER ELEVATION	
	PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
2/06	0.0		<u></u>	TP12_ 0.3				TOPSOIL / fill, grey silty sand FILL, sandy clay, brown with dark grey mottling Silty SAND, dark grey, loose, dry Becoming very moist with depth	0.10
30RING / WELL CONSTRUCTION LOG M4056001_TESTPITLOGS_BNOV06.GPJ HLA_SYD.GDT 05/1	0.0		1997 - 19	TP12_ 1.1				Sandy silty CLAY, green and orange, moist, medium to high plasticity Total Depth: 1.20 m	1.10

PRO		HLA 46 C Sout Fele Fax: J <b>MB</b>	-Enviroscienc larendon Str th Melbourne phone: 03 8 03 8699 21: <b>BER</b> <u>M40560</u>	ces eet , VI 699 22	C 3205 2199		TEST PIT LOG TF	P13
PRO LOC DRIL SAM SUR WEL LOG	JECT NA ATION _ LING ME PLING M FACE EL L HEAD/ GED BY	Corr ETH IETI EV TO(	<u>Oakleigh S</u> ner Beryl Ave OD <u>Test Pit</u> HOD <u>GRAB</u> ATION C Pritchard, T.	ante ante ante ante ante ante ante ante	n Prima d Baker	ry Sch rs Rd,	bool     BLANK       Dakleigh South     SCREEN       GRAVEL PACK     GRAVEL PACK       SANITARY SEAL/BENTONITE     STABILISED WATER LEVEL       GROUND WATER ELEVATION     GROUND WATER ELEVATION	
COM (mqq) Ol	BLOW COUNTS	ECOVERY	SAMPLE VUMBER	NALYSED	DEPTH (m BGL)	BRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT
0.0		R	TP13_ 0.2	*			TOPSOIL / fill, grey silty sand with rootlets Silty SAND, grey, dry, loose, contains abundant roots	0.10
CTIONLOG M4066001_TESTPITLOGS_BNOV06.GPJ HLA_SYD.GDT 05/12/06 0		23	TP13_ 1.0				Becoming brown and moist Total Depth: 1.20 m	0.80
BORING / WELL CONST								

	PROJE PROJE LOCAT DRILLII SAMPL SURFA		HLA 46 C Sout Tele Fax: UMB AME Corr ETH METH	Enviroscie ilarendon S h Melbourn phone: 03 03 8699 2 ER M4056 Oakleigh her Beryl Av OD Test P HOD GRAI ATION	nces treet le, VII 8699 122 601 South /e and it B	C 3205 2199 <u>n Prima</u> d Bake	ary Sch rs Rd, (	DATE <u>31/10/2006</u> DATE <u>31/10/2006</u> BLANK Dakleigh South SCREEN GRAVEL PACK SANITARY SEAL/BENTONITE STABILISED WATER LEVEL DOUND WATER FLEVEL	 
		ED BY	<u> </u>	∙ Pritchard, 1	T.Spr	oal			
	PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
							<u>x<sup>A</sup> 1<sub>1</sub> x</u> 1 <sub>1</sub> x <sup>A</sup> 1 <sub>1</sub>	TOPSOIL / fill, grey silty sand with rootlets	
								FILL, silty sand, grey-brown FILL, grey sandy clay with dark grey and orange mottling	0.10
ORING / WELL CONSTRUCTION LOG M4056001_TESTPITLOGS_BNOV06.GPJ HLA_SYD.GDT 05/12/06	0.0			TP14_ 1.4 TP14_ 1.7	*	- 1 -		FILL, crushed rock backfill, yellow-grey, becoming wet with depth         Sandy CLAY, mottled grey - brown and orange         Total Depth: 1.80 m	_ 1.00 _ 1.70 _ 1.80
۳L						I		DACE	1 05 1

PFF DFF SA SU UC	ROJECT ROJECT ROJECT DCATION RILLING MPLING JRFACE ELL HEA DGGED I DMMENT	HLA 46 C Sour Tele Fax: NUME NAME I Corr METH G METH G MET ELEV SOTO SY E.	-Enviroscier Clarendon Si th Melbourn phone: 03 i 03 8699 2 <b>BER</b> <u>M4056</u> <u>C Oakleigh</u> ner Beryl Av <b>OD</b> <u>Test P</u> <b>HOD</b> <u>GRAF</u> <b>ATION</b> Pritchard, 1	nces treet e, VI 8699 122 01 <u>South</u> <u>e and</u> it 3	C 3205 2199 n Prima d Bake	ary Scho rs Rd, (	DATE       31/10/2006         ol       BLANK         bakleigh South       SCREEN         GRAVEL PACK       GRAVEL PACK         SANITARY SEAL/BENTONITE       STABILISED WATER LEVEL         GROUND WATER ELEVATION       GROUND WATER ELEVATION	TP15
	BLOW	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT
GDT 05/12/06				A			TOPSOIL / fill, grey silty sand with rootlets FILL, grey silty sand , dry, loose FILL, sandy clay, grey with dark grey and orange mottling, diesel odour no	0.10 0.50 ted
6 / WELL CONSTRUCTION LOG M4058001_TESTPITLOGS_8NOV06.GPJ HLA_SYD O	0	23 23	TP15_ 1.3 TP15_ 1.6	*			FILL, crushed rock backfill, yellow-grey Sandy CLAY, mottled grey - brown and orange Total Depth: 1.60 m	1.50

	PROJ PROJ LOCA DRILL SAMF SURF WELL LOGO	ECT N ECT N ECT N TION LING M PLING M ACE E HEAD GED BY MENTS	HL/ 46 Sou Fax UM Co ETH MET LEV //TC	A-Enviroscien Clarendon Sti uth Melbourne ephone: 03 8 c: 03 8699 21 BER_M40560 E_Oakleigh S mer Beryl Avi HOD_Test Pit THOD_GRAB /ATION DC Pritchard, T	nces reet 2, VI 3699 122 01 <u>5 01 t</u> 3	C 3205 2199 <u>n Primaa d Bake</u> oal	rs Rd,	DATE       31/10/2006         nool       BLANK         Oakleigh South       SCREEN         GRAVEL PACK       SANITARY SEAL/BENTONITE         STABILISED WATER LEVEL       GROUND WATER ELEVATION	
	PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE NUMBER	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
							<u>x<sup>1</sup>1/</u> <u>x</u> 1/ <u>x</u> 1/	TOPSOIL / fill, grey silty sand, loose, dry	
								FILL, brown-grey sandy clay, rootlets	0.10
								Silty SAND, light grey, very dry, loose	0.20
								Total Depth: 0.40 m	0.40
06									
ILA_SYD.GDT 05/12/									
GS_8NOV06.GPJ F									
6001_TESTPITLO									
TION LOG M405									
ELL CONSTRUC									
BORING / WI									

PROJ PROJ DRIL SAM SURI LOGO COM	LA H JECT NUM JECT NAM ATION <u>C</u> LING MET PLING MET FACE ELE L HEAD/T GED BY MENTS	LA-Enviroscie Clarendon S outh Melbour elephone: 03 ax: 03 8699 3 MBER M405 ME Oakleigh orner Beryl A THOD Test I ETHOD GRA EVATION COC E. Pritchard,	ences Street ne, VI 8699 2122 601 South South Ve and Pit NB	C 3205 2199 n Prima d Bake	ary Scho rs Rd, (	DATE       31/10/2006         bol       BLANK         Dakleigh South       SCREEN         GRAVEL PACK       GRAVEL PACK         SANITARY SEAL/BENTONITE       STABILISED WATER LEVEL         GROUND WATER ELEVATION       GROUND WATER ELEVATION	7
PID (ppm)	BLOW COUNTS	SAMPLE	ANALYSED	DEPTH (m BGL)	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
ALOG M4056001_TESTPITLOGS_BNOV06.GPJ HLA_SYD.GDT 05/12/06		n TP17_ 1.5 TP17_ 1.7	*			TOPSOIL / fill, grey silty sand with rootlets         FILL, silty sand, grey-brown, dry, with gravel, chunks of clay, glass, timber and plastic fragments         Becoming very moist to wet, becoming dark grey. Sewer odour noted with increasing moisture.         Becoming very moist to wet, becoming dark grey. Sewer odour noted with increasing moisture.	
BORING / WELL CONSTRUCTION I	4m	1.7				Total Depth: 1.70 m	1.70