GOLDER
MEMBER OF WSP

REPORT

Preliminary Site Investigation

89 Ross Watt Road, Gisborne

Submitted to:

ID Land

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21473472-001-R-Rev2

29 October 2021

Executive Summary

ID Land Pty Ltd (ID Land) has engaged Golder Associates Pty Ltd (Golder) to undertake a Preliminary Site Investigation (PSI) for the property at 89 Ross Watt Road, Gisborne (site). ID Land has acquired the site and proposes to develop the site for residential land use. The assessment included a site information and history review, site walkover and shallow soils sampling.

The site has a history of residential and agricultural use including potentially grazing and cropping of the land. Existing structures at the site include homestead infrastructure (house, shed, water tank) at the northeast boundary, the footprint of which has changed over time but within the same area on the site and general soil stockpiles, concrete slab, waste burning area and dams identified in the north-west portion of the site. No evidence of extensive use of imported fill or excavation was identified. Surrounding land use has been and remains agricultural or residential in nature with a former quarry located adjacent to the western site boundary.

All soil samples have reported concentrations below the adopted human health criteria for residential and public open space use indicating the site represents a low risk for the proposed residential land use. As access has not been granted to the homestead area where some of the key features of interest are there will remain a level of risk of contamination that cannot be assessed at this time.

The risk of groundwater contamination at the site is low. Furthermore, the risk of contamination impact to the site from offsite sources is considered to be low as no potentially contaminating activities were identified in the immediate surrounding areas.

Based on the findings of the site desktop assessment and the soil investigation, no contamination issues have been identified that are likely to preclude the proposed development of the site for a residential use.

Given the low risk of contamination identified it is likely that the near surface soil across the majority of the site is likely to classify as Fill Material for the purposes of offsite disposal. Concentrations of fluoride in the stockpile near the large dam may classify it as Category C waste for offsite disposal subject to further assessment. Further sampling of soil stockpiles identified on site in the northwest should be undertaken to classify the stockpiled materials should these stockpiles be proposed for on-site reuse or off-site disposal.

When considering the environmental process to be used to progress site development, consideration must be made of the requirements of *Ministerial Direction No.1 – Potentially Contaminated Land* that requires planning authorities to satisfy themselves that the environmental condition of the land to be used for a purpose is, or will be, suitable for that use. In our assessment there is a low risk of contamination at the site which can be managed through the implementation of the recommendations set out in this report. As such, it is unlikely that further assessment will be required by the Planning Authority other than this assessment and completion of the recommended actions.

As specified in the Environment Protection Act (2017) which came into effect on 1 July 2021, the Duties for Contaminated Land apply to anyone in management or control of contaminated land. Based on the information to date, no contamination has been identified at the shallow soils across the site. As such, in our opinion the site is unlikely to be defined as contaminated land so that the GED would apply to the party in control of the land.

The following actions are recommended prior to or as part of development:

- Assessment of soil condition within the fenced homestead area in the north eastern portion of the site be undertaken through a program of shallow soil sampling to better assess soil condition around the site infrastructure and the need for remediation.
- Further sampling of soil stockpiles identified on site in the northwest should be undertaken to classify the stockpiled materials should these stockpiles be proposed for on-site reuse or off-site disposal.
- Once access is available, a HAZMAT survey should be undertaken at the homestead infrastructure area, and any identified ACM or other hazardous materials should be removed from site and disposed should demolition of the homestead infrastructure area be proposed. Following demolition of infrastructure, soil beneath the footprints should be inspected for signs of visual contamination or odour as validated by an Environmental Consultant.
- Identified anthropogenic materials (i.e. burnt, rusted drums and concrete slab in the northwest portion of the site) and other wastes if identified should be removed from site and visually verified as having been removed.
- There will remain a level of uncertainty in relation to past activities over the site. It is therefore recommended that the uncertainty in the residual risk of contamination is managed via a general soil management protocol to be adopted during the development of the site. The protocol would note:
  - The GED in relation to parties in control of the site;
  - Should any stained or odorous soils or soils containing waste be identified, that these are assessed by an Environmental Consultant;
  - All material suspected of being ACM should be assessed by a suitably qualified practitioner. Any ACM should be handled and disposed of by a suitably qualified and licenced asbestos contractor;
  - Any soil brought to site as fill are confirmed as meeting the EPA requirements for Fill Material; and
  - Any soil taken off-site meets the EPA requirements for the off-site disposal of soils.

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1.0 INTRODUCTION

ID Land Pty Ltd (ID Land) has engaged Golder Associates Pty Ltd (Golder) to undertake a Preliminary Site Investigation (PSI) for the property at 89 Ross Watt Road, Gisborne (site). ID Land has acquired the site and proposes to develop the site for residential land use. The site currently consists of agricultural land, a residential building with external sheds, and three dams. The site is shown on Figure F1 with the proposed masterplan illustrated on Figure 1 below.

Figure 1: Proposed Masterplan (the site) (Breese Pitt Dixon, October 2021)

2.0 OBJECTIVES

The objectives of the environmental site assessment are to:

- Assess the nature of the previous and existing land uses of the land; and
- Undertake intrusive soil sampling to evaluate the potential for contamination that may impact upon the proposed development.

As access has not been granted to the homestead area in the north east of the site (Figure F1) where some of the key features of interest are there will remain a level of risk of contamination that cannot be assessed at this time.

3.0 INFORMATION REVIEW

3.1 Sources of Information

The assessment included a desktop review of historical information and site walkover.

The following sources of information were included in the desktop assessment:

Historical certificates of title

As part of the review Golder reviewed historical and current certificates of title for the site. Certificates of title can provide an indication of who has previously purchased the property, for what purpose and for what duration. Reviewed certificates of title are provided in Appendix A.

Aerial photographs and Historical Maps

Historical aerial photographs from 1984 through to 2021 were reviewed. Aerials from 2010 onwards were sourced from Nearmap. Aerial photographs provided an overview of property development over time, including the type of buildings and site coverage.

Environment Protection Authority (EPA) Priority Sites Register

EPA Priority Sites are sites for which EPA has issued a Clean-Up Notice pursuant to section 62A or a pollution abatement notice pursuant to section 31A or 31B (relevant to land and/or groundwater) of the *Environment Protection Act 1970* (now superseded). The most recent register was published on 31 May 2021. The register can provide an indication of whether the site or surrounding sites have been identified as contaminated.

Environment Protection Authority (EPA) Environmental Audit Statements and Certificates Register

EPA provides an online interactive portal for sites that are or have been under environmental audit. A review of Environmental Audit reports for premises in the vicinity of the site can provide information on area and site history, regional and local geology and hydrogeology and potential for the site or surrounding sites to be contaminated or pose a risk of contamination.

EPA Map of Groundwater Quality Restricted Use Zones in Victoria

EPA provides an online map of groundwater quality restricted use zones (GQRUZ) in Victoria. A GQRUZ is an area where, following an audit, there is remaining groundwater pollution. The GQRUZ is identified when attempts have been made to clean up the groundwater and EPA determines that restrictions should remain on how the water can be used without further treatment. The GQRUZ acts as a tool to inform potential users of groundwater that the water may not be suitable for the intended use due to remaining pollution and that testing of the groundwater is required to assess its suitability.

Geological and hydrogeological information

The Geological Survey of Victoria provides information regarding regional geology and hydrogeology. The estimated depth of groundwater and depth to rock provides context within which to evaluate the likely behaviour of contamination in the local environment.

Data obtained through the desktop investigation has been collated, evaluated and presented in this report.

3.2 Site Details

Table 1: Site Location and Setting

Item	Description
Address	89 Ross Watt Road, Gisborne
Legal Description	Lot A PS318022 Lot 1 TP844764
Approximate Site Area	860,000 m^2
Council	Macedon Ranges Shire Council
Current Zoning	General Residential Zone (GRZ) General Residential Zone – Schedule 1 (GRZ1)

Item	Description
Planning Overlays	Development Plan Overlay (DPO) Development Plan Overlay – Schedule 4 (DPO4) Development Contributions Plan Overlay (DCPO) Development Contributions Plan Overlay – Schedule 2 (DCPO2) Land Subject to Inundation Overlay (LSIO)
Current Site Use	Residential – Single story dwelling Agricultural – Open farmland
Site Features	This site contains open farmland with a fenced off homestead area in the north east region of the property. The homestead area contains an external shed and single residential dwelling. Three dams are located across the property.
Surrounding Land Use	North – Agricultural with small residences and Gisborne Nature and Conservation Reserve directly to the north east. East – Residential estates, Swinburn Avenue Children's Centre directly to the east. South – Jackson Creek and then agricultural with small residences West – There is a former quarry adjacent to the western corner of the site beyond which is Rosslynne Reservoir.

3.3 Geology, Soils and Hydrogeology

The environmental site setting is summarised in **Table 2**.

Table 2: Environmental Setting

Summary Information	Details
Topography	The site is generally flat with topographic lows (approximately 455 m) along the south-western boundary and topographic highs (approximately 470 m) along the north-western boundary.
Nearest Surface Water Bodies	There are three surface dams located on the site and several other dams located on surrounding properties. The nearest major surface water features are Rosslynne Reservoir to the immediate west of the site and Jackson Creek which marks the southern boundary of the site.
Surface Water Segment	The Environment Reference Standard (GoV, 2021) (ERS) indicates the site is located within the 'Central Foothills and Coastal Plains' Segment. The beneficial uses to be protected within this Segment are outlined in the ERS.
Regional Geology	The Geological Survey of Lancefield Mapsheet (1:50,000 scale) shows that the site is located on basalt of the Newer Volcanic Group.
Potential Acid Sulphate Soils	The site lies within an area with an extremely low to low probability of occurrence of acid sulphate soils.
Regional Hydrogeology	Based on a review of Visualising Victoria's Groundwater (VVG) database, groundwater beneath the site is likely to be present at a depth of 10 m to 20 m in the north east and 20 m to 50 m across the rest of the site.
Groundwater Segment	Groundwater quality in the region is expected to have a total dissolved solids (TDS) concentration in the range 500 mg/L to 1,000 mg/L in the southeastern portion of the site, and 1,000 mg/L to 3500 mg/L in the northwestern portion of the site. The Environment Reference Standard (GoV, 2021) (ERS) classifies

Summary Information	Details
	this TDS range as A2 to C, and would generally be regarded as A2 for the site.
Regional Groundwater Use	The Visualising Victoria's Groundwater (VVG) database indicates the presence of 13 wells within 1000 m of the site homestead area. Five are licenced for groundwater investigation and six do not have a stated use. Two including the closet well to the site are licensed for domestic and stock use, are located 650 m and 1,000 m north of the site being drilled to a depth of 146 m and 47 m respectively. The well depths range from 25 m to 146 m.
Inferred Groundwater Flow	An Audit report for a nearby property indicates groundwater flow in a southerly direction, towards the Jackson Creek. Nearby geological or man-made features may also influence groundwater flow on a local scale.

3.4 Site History

A review of available historical maps, aerials and photographs was undertaken to ascertain the nature of the land uses previously occupying the site. A summary of observations is provided below, referenced images are presented in Appendix B.

An 1857 map of the Subdivision of Allotments, by the Public Lands Office indicate that the north-east region of the site was "good agricultural land". The western area of the site is labelled "Watt's Pre-Emptive Right" and is assumed to be green field pre-agricultural (Figure 2).

Figure 2: Extract of Township and suburban allotments of Gisborne, City of Bourke – 1857 (SLV Identifier: 44887680)

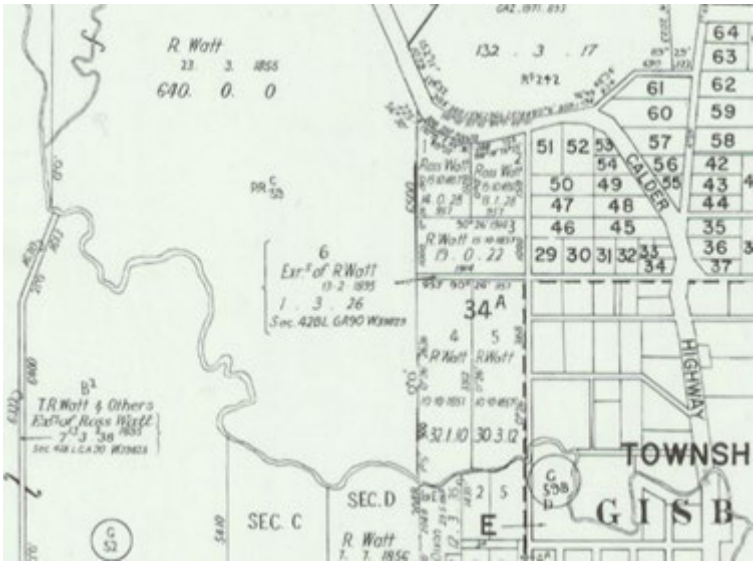

Figure 3: Extract of Gisborne, Country of Bourke – 1973 (SLV Identifier: 44887673)

Figure 3 indicates that by 1973 the site was owned by T.R. Watt & Others, as an extension of the original purchase by R Watt in 1856 (Figure 2) and additional land purchase in 1895 comprising the remainder of the site.

Historical aerial imaging indicates that by 1950 the site was pastoral. By 1984, a (alluvium) quarry is present adjacent the western site boundary and a small dam is present in the eastern part of the site (Figure 4). By 1989 (Figure 5) the original dam has been enlarged and an additional dam is present in the south of the site. The residential building, an associated shed and outbuildings are present in the northeastern part of the site. Stockpiles of soil are present in the northwest corner of the site. Initial construction has begun on the residential estate to southeast of the site.

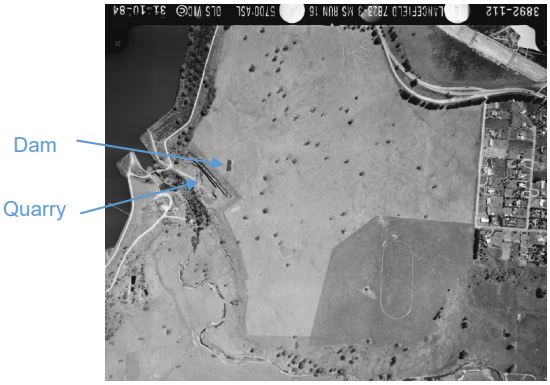

Figure 4: Aerial Photograph 1984

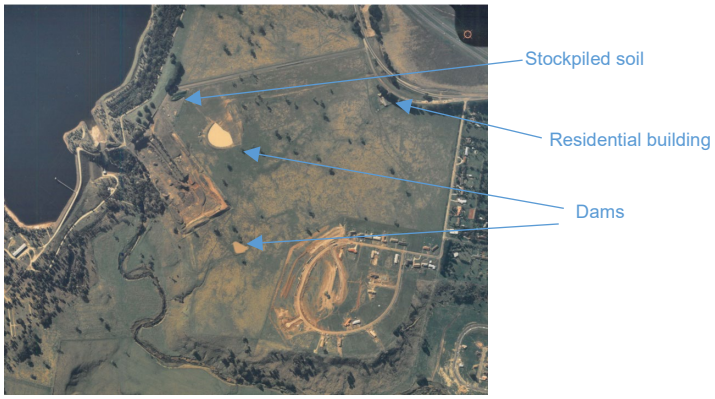

Figure 5: Aerial Photograph 1989

By 2010 a childcare centre had been built in the eastern corner of the site. The residential estate to the southeast of the site was completed.

As shown on Figure 6 the layout of the homestead area was dynamic. The main house and shed were present in 1989. A small structure was built in the southern corner by 2010, which had been enlarged by 2012 and removed by 2015. Additional structures were present adjacent to the main shed by 2015 and had been extended by 2017 and removed by 2021.

Figure 6: Homestead Area 1989 - 2021

3.5 Regulatory Review

3.5.1 EPA Victoria Priority Sites Register

The most recent Priority Sites Register (PSR) does not list the site however a Priority Site (PS) is located within 1 km of the site.

The PS located at 9 Station Road, Gisborne is a former petroleum storage site located approximately 850 m southeast of the site boundary. The PSR status is “Requires assessment and/or clean up”.

3.5.2 EPA Groundwater Quality Restricted Use Zones (GQRUZ)

The site is not, nor are the immediately surrounding sites, within an EPA GQRUZ.

3.5.3 EPA Victoria Environmental Audits

Two environmental audits under Section 53X of the Environment Protection Act 1970 (now superseded) are located within 1 km of the site. The closest audit site is located at the Former VicRoads Patrol Depot, Old Calder Highway, Gisborne (SKM, 1995), located approximately 350 m to the east of the site. The result of the environmental audit was a Certificate of Environmental Audit indicating that the condition of the site was neither detrimental nor potentially detrimental to any beneficial uses of the site.

The second site subject to environmental audit is located approximately 550 m to the southeast of the site at 108 Acacia Court (Camp Scott Furphy, 1993). The audit site was formerly a sheep dip. The result of the environmental audit was a Certificate of Environmental Audit indicating that the condition of the site was neither detrimental nor potentially detrimental to any beneficial uses of the site.

4.0 SITE INSPECTION

A site inspection was undertaken on 17 June 2021. Access was granted to external areas only, and did not include access to the fenced area containing the homestead area, associated shed and garden area. A selection of photographs taken during this site inspection presented in Appendix C. The main features within the homestead area are shown on Figure 7 below.

Figure 7: Homestead Area (Nearmap 2021)

The homestead area includes a single storey brick built house (Appendix C, Photograph 1) with an attached water tank. The homestead area is grassed with mature trees and shrubs. Due to the age of the residential building there is a possibility that it was constructed utilising asbestos containing material (ACM).

A large metal shed is located to the northwest of the main house with an attached water tank (Appendix C, Photograph 2). There is a burn area to the west of the shed (Appendix C, Photograph 3) and a greenhouse and 2 small metal containers to the west of the main house (Appendix C, Photograph 4).

The surrounding paddocks contained long grass with occasional trees (Appendix C, Photograph 5). Cattle were present on-site (Appendix C, Photograph 6). A concrete tank assumed to contain water is present in the northwest corner of the pasture (Appendix C, Photograph 7). Burnt out, rusted 205 L drums (Appendix C, Photograph 8) were found in the north western part of the site as were piles of earth which appeared to be natural materials but had no obvious function (Appendix C, Photograph 9 and 10).

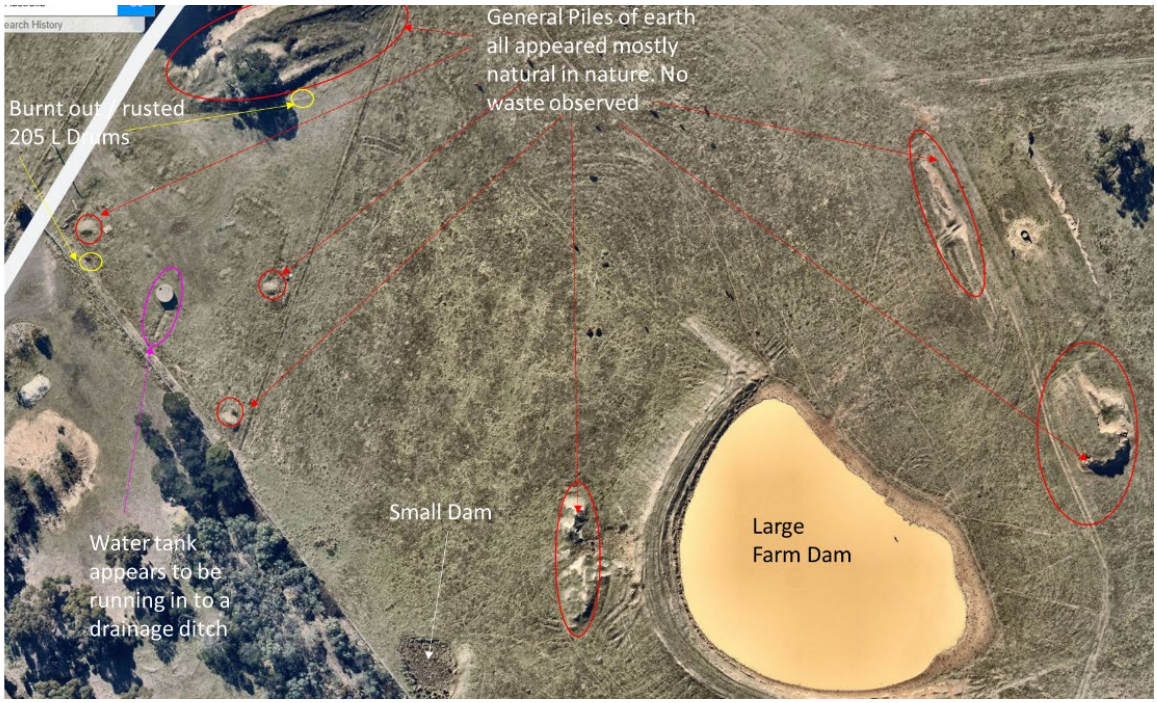

Figure 8: Northwestern Corner of Site (Nearmap 2021)

5.0 POTENTIAL CONTAMINATION RISK

The desktop site history review and inspection assessed the potential for past and current activities on the site to have resulted in contamination. The following table presents a summary of potential sources of contamination, details on potential contaminants that may be associated with these areas and provides a relative risk ranking for investigation of each item with respect to contamination at the site. It should be noted the risk ranking is not intended to infer severity or extent of impact; rather, it is the intention to indicate the potential for the contamination issue to exist at the site.

Table 3: Summary of Potential Sources, Contaminants and Risk Ranking

Activity	Description	Indicative Potential Contaminants	Contamination Risk	
			Soil	Groundwater
On-Site Land Use				
Agricultural Use / Grazing	Site was subject to agricultural purposes, potentially grazing and cropping but may have included the use of pesticides.	OCP and OPP, nitrates and phosphates	Low	Low
Residential Use	General residential use, demolition and construction of various structures. Septic tank, possible generator use.	Asbestos, Metals, PAHs, Nitrates and Phosphates	Low	Low
Sheds	Storage and handling of common farming and machinery chemicals has the potential for exposure to the environment, giving rise to shallow soil and groundwater contamination. Given the ad hoc nature of storage and housekeeping, soil impact may be spread around the shed.	Broad range of potential contaminants, including: Asbestos, metals, PAH, TPH, OCP and OPP, nitrates and phosphates	Low to Moderate	Low
Wastes	Waste stockpiles and burning of waste evident; drums in north western portion of site.	Metals, PAH, Asbestos, waste	Low	Low
Off-site Land Use				
Agricultural and residential use	The surrounding area has generally been utilised for agricultural purposes with residential developments increasing.	Metals, PAHs, OCP and OPP, nitrates and phosphates	Low	Low
Priority Sites	Former service station 850 m to south east requiring assessment and/or clean up. Inferred down hydraulic gradient of the site.	Metals, TPH, solvents	Low	Low
Quarry	A former quarry is present to the adjacent to the western site boundary. Potential waste or soil deposition.	Broad range of potential contaminants or influence on groundwater dynamics	Low	Low

Notes:
PAH Polycyclic Aromatic Hydrocarbons *MAH Monocyclic Aromatic Hydrocarbons* *TPH Total Petroleum Hydrocarbons* *S/VOC Volatile or Semi Volatile Organic Compounds*

6.0 SOIL ASSESSMENT

6.1 Methodology

To assess the potential contamination status of the site, soil samples were collected from eight hand augered sample locations from across the site. No access was granted within the fenced homestead area in the northeast portion of the site, at the time of sampling. In addition, no sampling was undertaken in the far south of the site as the area was considered to represent a similar or lower contamination risk profile to the northern areas away from the farm infrastructure. A plan of the sample locations is provided on Figure F1 attached.

The Australian Standard AS4482.1-2005 Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds suggests 55 Sampling Points per 5 ha (~945 samples for 85.91 ha), however, given the likely low risk of the site contamination, and low to moderate risk around the homestead area, the proposed approach of confirmatory sampling was considered sufficient to assess the site contamination risk. The homestead area will be assessed at a future date.

Golder notes that sampling locations HA01, HA03 and HA04 in the north-west portion of the site were hand-augered on top of the soil stockpiles/mounds. Also, a concrete slab was identified in the north-west corner of the site. This structure may be associated to the former quarry located adjacent to the western site boundary. Soil sample HA02 was taken adjacent to the identified concrete slab.

Soil sampling was undertaken on 27 August 2021. Samples were logged in the field and assessed for the potential presence of visual or olfactory evidence of contamination. Samples were collected in jars supplied by the laboratory and Nitrile gloves were worn whilst collecting samples and changed after collection of each soil sample. The jars were labelled immediately and stored in a chilled cool-box. The samples were then dispatched to the laboratory accompanied by Chain of Custody (CoC) documentation.

A total of nine primary soil samples, one duplicate quality assurance (QA) sample and one rinsate blank QA sample were submitted for laboratory analysis (Appendix F).

The nine primary soil samples were selected for the following analysis:

- Five samples were tested for the suite of chemicals in Table 3 of the Victorian Environment Protection Authority (Vic EPA) Waste Guidelines Publication 1828.2 (June 2021).
- Four samples were tested for a reduced suite of analytes including metals, polycyclic aromatic hydrocarbons (PAHs) and pesticides (organochlorine and organophosphorus) concentrations.

Samples were submitted to the nominated primary laboratory, Eurofins, which is registered by the National Association of Testing Authorities (NATA) for the analyses performed. The laboratory certificates and CoC documentation are provided in Appendix F.

6.2 Soil Assessment Framework

Soil assessment criteria has been selected based on the proposed low to medium density residential use of the site.

6.2.1 Criteria for Environmental Values

The ERS (GoV, 2021) outlines land use categories and specifies environmental values which must be protected for each of these categories. In accordance with the ERS (GoV, 2021), the relevant environmental values of land that must be protected based upon the proposed land use at the site are presented in **Table 4**.

Table 4: Protected Environmental Values of Land

Environmental Values	Land Use Category: Sensitive use – Other
Maintenance of ecosystems *Natural ecosystems* *Modified ecosystems* *Highly modified ecosystems*	 No Yes Yes
Human health	Yes
Buildings and structures	Yes
Aesthetics	Yes
Production of food, flora and fibre	Yes

The ERS (GoV, 2021) outlines indicators and objectives for land, based on the relevant environmental values. The adopted soil assessment criteria considered applicable for low density residential land use are discussed in the following sections and are summarised in **Table 5**.

Table 5: Summary of Adopted Assessment Criteria for Soil

Environmental Values	Land Use Category: Sensitive use - Other
Maintenance of ecosystems *Highly modified and modified ecosystems*	NEPM 2013 EILs - Urban Residential and public open space NEPM 2013 ESLs - Urban Residential and public open space, fine soil
Human health	NEPM 2013 HIL-Residential A Soil NEPM 2013 Residential A & B Soil HSL for Vapour Intrusion, silt NEPM 2013 Management Limits – Residential, fine soil
Buildings and structures	Australian Standard AS2159-2009
Aesthetics	Field observations of visual and olfactory impacts
Production of food, flora and fibre	NEPM HIL-A investigation levels have been adopted.

NEPM - National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 2013, EILs – Ecological Investigation Levels, ESLs – Ecological Screening Levels, HILs – Health Investigation Levels, HSLs – Health Screening Levels

Site-specific EILs were derived for copper, chromium III, nickel and zinc by adopting the soil properties for the Australian reference soil presented in Table 12 of Schedule B5b (NEPC 2013) including: clay content of 10%, a cation exchange capacity of 10 cmol/kg and an organic carbon value of 1%. For pH, the average of soil pH values (6.8) obtained from laboratory analysis of collected samples was used. The EILs were then derived by inputting these values in the EIL calculation spread sheet provided in NEPC (2013) where aged soil and low traffic volume was assumed. These are presented in Appendix F.

6.2.2 Waste Classification Criteria for Offsite Disposal

In Victoria, waste must be classified to meet waste duties under Part 6.4 (Duties relating to industrial waste) and 6.5 (Duties and controls relating to priority waste) of the *Environment Protection Act 2017*.

The *Environment Protection Regulations 2021* (the Regulations), Part 4.2 (Industrial Waste and priority waste) specifies the process for classifying waste.

EPA Victoria (2021) *Waste Disposal Categories – Characteristics and Thresholds* (Publication 1828.2), details the characteristics and thresholds necessary for complying with the Regulations, specifically, classification of wastes to determine the relevant priority waste category in accordance with Schedule 6 of the Regulations.

The relevant priority waste category must be identified for priority waste consigned for disposal to landfill or for soil that is priority waste. The priority waste categories are:

- Category A waste - prohibited from disposal to landfill
- Category B waste
- Category C waste
- Category D waste - for soil only
- Soil containing asbestos only

For priority waste consigned for disposal to landfill, the priority waste category determines:

- which landfills can receive the waste or, in the case of Category A waste, that the waste is prohibited from disposal to landfill without prior treatment
- the waste levy rate that applies to the waste

For soil, the priority waste category helps determine what can be done with soil more broadly, not just for disposal to landfill. For example, Category D soil generated at a project site may be contained on that site under a permit.

EPA Publication IWRG702 (EPA, 2009b), *Soil Sampling*, dated June 2009, provides guidance on the minimum soil sampling frequencies as follows:

1) One sample per 25 m^3 for soil volumes of less than 200 m^3 with a minimum of three samples; and

2) One sample per 250 m^3 for soil volumes of greater than 200 m^3 within a minimum of ten samples, where there is sufficient data to calculate the 95% upper confidence limit of the mean.

7.0 RESULTS OF SOIL INVESTIGATION

7.1 Subsurface Ground Conditions

A description of the main subsurface units encountered during our investigation is presented below. The depth range of the subsurface units encountered in HA02 and HA05 to HA08 are summarised in **Table 6**. Samples HA01, HA03 and HA04 were excluded from **Table 6** as the samples were taken on top of mounded area/stockpiles which do not represent the actual ground level of the site. Detailed bore logs are provided in Appendix D.

The fill in the stockpiles was described as clayey silt with trace gravel, and appeared to be a soil from the surrounding area rather than imported fill. Waste was not observed in the hand augers through the stockpiles.

Unit 1 – Fill

Fill was present from surface to depths of at least 0.65 m in HA02 (terminated in fill), 0.55 m in HA05 and 0.45 m in HA08. The fill consisted of clayey silt underlain by silty sandy gravel in HA02, and clayey silt underlain by gravelly clay/sandy clay in HA05 and HA08. The clayey silt fill layer encountered in the boreholes has trace of gravel except for HA05. There were no identified foreign materials in the fill encountered. The majority of the clay materials encountered had high plasticity.

Unit 2 – Natural

Natural layers of soil were encountered from surface up to the target depths in HA06 (up to 0.6 m) and HA07 (up to 0.7 m), and under a fill layer in HA05 (from 0.55 m to 0.75 m) and HA08 (from 0.45 m to 0.7 m). The natural soils consisted of brown, high plasticity clayey silt layer (up to 0.4 m in HA06/HA07) followed by brown/orange high plasticity silty clay (up to 0.6 m in HA06 and up to 0.7m in HA07). The natural layer encountered in HA05 and HA08 also consisted of a natural brown/orange high plasticity silty clay layer.

Perched water was encountered at a depth of 0.3 m in HA07 (near eastern boundary) and 0.5 m in HA02 (western boundary). Groundwater was not encountered in any of the boreholes.

Table 6: Depth range of subsurface units encountered in boreholes

Subsurface Unit	Depth range of subsurface units (m)				
	HA02	HA05	HA06	HA07	HA08
Unit 1 – Fill	Fill 0.0 – 0.65	Fill 0.0 – 0.55	-	-	Fill 0.0 – 0.45
Unit 2 – Natural	-	Natural 0.55 – 0.75	Natural 0.0 – 0.6	Natural 0.0 – 0.7	Natural 0.45 – 0.7

Note: Samples HA01, HA03 and HA04 were excluded from this table as the samples were taken on top of mounded area/stockpiles which do not represent the actual ground level of the site.

7.2 Field Analysis

Each sample was logged by the field scientist undertaking the sampling. An assessment of each soil sample was made in the field and involved ranking based on both olfactory and visible evidence of contamination. Each soil sample was given a ranking in accordance with Table 7.

Table 7: Environmental Ranking System for Soil Samples

Visible Contamination		Odorous Soil	
Rank	**Description**	**Rank**	**Description**
0	No visible evidence of contamination	A	No odour
1	Slight evidence of visual contamination	B	Slightly offensive odour
2	Visible contamination	C	Moderately offensive odour
3	Obviously contaminated	D	Strongly offensive odour

No visual or olfactory evidence of contamination was observed in the soil samples collected. Photoionisation detector (PID) readings of between 0.0 and 6 ppm were detected indicating a low risk of volatile organic compounds ion the samples screened.

No asbestos containing material (ACM) was observed during the works.

7.3 Laboratory Analytical Results

The current soil analytical results are presented in Table 1 (on-site land use) and Table 2 (off-site disposal) in Appendix E, and compared against the adopted investigation criteria outlined above. Laboratory certificates of analysis are presented in Appendix G.

7.3.1 Ecological Risk

No concentrations were reported above the adopted NEPM 2013 – EIL or ESL guidelines for a residential land use setting.

7.3.2 Human Health Risk

Concentrations of metals (arsenic, chromium, copper, lead, nickel and zinc), fluoride and Total Recoverable Hydrocarbons (TRH) C_{29}-C_{36} Fraction were reported above the laboratory's limit of reporting (LoR). However, the detected concentrations were all below the adopted NEPM (2013) human health HILs, HSLs and

Management Limits for the proposed residential use of the site. Therefore, based on the preliminary sampling, soils at the site are not likely to represent an unacceptable risk to human health (including short term exposure of construction workers).

7.3.3 Consideration of Buildings and Structure

The reported soil pH results ranged from 6 – 7.6 pH which represent a non-aggressive exposure classification for concrete or steel piles in clay soils above groundwater at the site. Chloride and sulphate were not analysed as part of this investigation, which may also impact on the exposure classification.

7.3.4 Consideration of Aesthetics

As noted above, an assessment of the aesthetic impacts in each soil sample was made in the field. No soil samples observations indicate an unacceptable impact to aesthetics. Anthropogenic materials including waste associated with identified burnt out rusted drums and a concrete slab (adjacent to HA02 sample) were found in the north-western portion of the site. These wastes and any other wastes identified should be removed prior to construction. The soil stockpiles identified onsite were not found to contain wastes and may be suitable for reuse subject to further assessment.

7.3.5 Production of Food, Flora and Fibre

The human health assessment discussed above is inferred to also represent the environmental value of production of food, flora and fibre.

7.3.6 Waste Disposal

The results of the laboratory analysis of the nine primary samples were within the threshold limits for Fill Material with the exception of HA03 (stockpile sample west of the large dam in the northwest portion of the site) where the concentration of fluoride was reported at 480 mg/kg which was above the 450 mg/kg Fill Material upper threshold limit. The fluoride may be of natural origin in the stockpiled materials.

Based on the available results, soil is likely to be classified as Fill Material for off-site disposal. The soil stockpile (HA03 area) has a preliminary classification of Category C Waste under EPA Publication 1828.2 but given the marginal exceedance, further sampling and statistical assessment may reduce this classification. There may be localised areas in the vicinity of the stockpiles and waste burning areas in the north-western portion of the site or potentially the homestead (once assessed) where localised contamination may be found impacting on the Fill Material classification. Once the volume of soil requiring off-site disposal is known, additional sampling and testing will be required to confirm this waste soil classification and satisfy the receiving site.

Prior to disposal of any material off-site, the nominated receiver should be contacted to verify that the material has sufficient soil quality data for them to accept the classification indicated within this report. The transport of all materials from the site should conform to the requirements of EPA Victoria, Local Council, VicRoads and any other relevant authorities.

The offsite disposal classifications for soils provided in this report are preliminary only and additional sampling, analysis and classification would be required to meet the requirements of EPA for classifying industrial waste and satisfy a landfill requirement for acceptance for disposal.

7.4 Data Quality Assurance

A data Quality Assurance (QA) program was implemented as part of the soil investigation. The main aspects of data QA relate to the field work procedures, collection of quality control samples (i.e. field duplicates) and generation of internal laboratory quality control data to support the reported results and the assessment of laboratory results.

The field work for this investigation was carried out in general accordance with Golder standard procedures which operates in accordance with AS/NZS ISO 9001:2000. The work was also carried out in general compliance with the Australian Standard AS 4482.1–2005 *"Guide to the Sampling and Investigation of Potentially Contaminated Soil, Part 1: Non-volatile and Semi-volatile Compounds", AS4482.2-1999 "Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil – Volatile Substances*".

The quality of the laboratory data generated was supported with appropriate laboratory Quality Control (QC) samples and assessed using standard methods. Internal laboratory QC samples including method blanks, laboratory duplicates, matrix spikes, laboratory control sample spikes and surrogate spikes were analysed as part of the quality assurance program.

The Data Quality Indicators (DQIs) for this assessment are required to meet the following acceptance criteria:

- Samples tested within holding time;
- Collection rate for primary duplicates at a rate of 10% of total primary samples analysed;
- Relative percentage differences (RPDs) for primary field duplicate to be generally less than 50%;
- All RPDs for laboratory duplicates less than 30%, or less than the dynamic acceptability range set by the laboratory based on daily tracking of data variability (refer to laboratory "QCI" report);
- Spike recovery for most analytes to fall in the range of 70 – 130%, or within the dynamic acceptability range set by the laboratory based on daily tracking of data variability (refer to laboratory "QCI" report);
- Laboratory method blanks to be below analyte LoR; and
- Overall completeness of at least 95%.

The laboratory report confirms that the samples were tested within holding time.

One primary duplicate sample was collected during the investigation and a total of nine primary samples were analysed. Duplicate testing was performed for select analytes consistent with the analytical program for the primary samples. The calculated RPDs for intra-laboratory duplicate and the rinsate blank analysis are presented in Table 3 and Table 4, respectively (refer to Appendix G).

Table 8: Soil QA/QC Summary for Soil Sampling

QC Sample Type	Number of Results NOT Meeting Data Quality Objectives	Total Number of Results (Individual Analytes)	Percentage Meeting Data Quality Objectives
Primary Duplicates	1	88	99%
Rinsate Blank	1	109	99%
Laboratory Internal Duplicates	0	189	100%
Matrix Spikes	1	92	99%
Method Blanks	0	175	100%
Laboratory Control Samples	0	89	100%
Overall Completeness	**3**	**742**	**99%**

The overall QA/QC completeness of 99% for soil results is above the overall objective of 95%. Based on this, it is considered that the overall data quality generated during the assessment of soils is of sufficient quality upon which to base decisions for this assessment.

8.0 RISK TO DEVELOPMENT

8.1 Nature of previous and existing land use

The site has a history of residential and agricultural use including potentially grazing and cropping of the land. Existing structures at the site include homestead infrastructure (house, shed, water tank) at the northeast boundary, the footprint of which has changed over time but within the same area on the site and general soil stockpiles, concrete slab, waste burning area and dams identified in the north-west portion of the site. No evidence of extensive use of imported fill or excavation was identified. Surrounding land use has been and remains agricultural or residential in nature with a former quarry located adjacent to the western site boundary.

8.2 Nature of contamination

All soil samples have reported concentrations below the adopted human health criteria for residential and public open space use indicating the site represents a low risk for the proposed residential land use. As access has not been granted to the homestead area where some of the key features of interest are there will remain a level of risk of contamination that cannot be assessed at this time.

Localised areas of contamination may exist on the site including in the areas around the homestead, stockpiles, waste burning areas and beneath the identified concrete slab in the north-west portion of the site. Broad area contamination is considered unlikely. No offsite sources of contamination were identified that are considered likely to impact upon the site condition.

The risk of groundwater contamination at the site is low. Furthermore, the risk of contamination impact to the site from offsite sources is considered to be low as no potentially contaminating activities were identified in the immediate surrounding areas.

8.3 Suitability for proposed residential development

Based on the findings of the site desktop assessment and current soil investigation, no contamination issues have been identified that are likely to preclude the proposed development of the site for a residential use.

In the fenced homestead area where soil investigation has not been undertaken due to access restriction, soil assessment of this area should be undertaken to confirm the need for remediation of the shallow soils. At this stage, there is potential that some shallow, localised remediation in this area will be required.

There will remain a level of uncertainty in relation to past activities over the site. It is therefore recommended that the uncertainty in the residual risk of contamination is managed via a general soil management protocol to be adopted during the development of the site (further discussed in Section 9.0).

8.4 Implications on offsite disposal options during development

Given the low risk of contamination identified it is likely that the near surface soil across the majority of the site is likely to classify as Fill Material for the purposes of offsite disposal. Concentrations of fluoride in the stockpile near the large dam may classify it as Category C waste for offsite disposal subject to further assessment.

Further sampling of soil stockpiles identified on site in the northwest should be undertaken to classify the stockpiled materials should these stockpiles be proposed for on-site reuse or off-site disposal.

Should offsite disposal of excess soil be required as part of the site development, further sampling of the excess material will be required to characterise it in accordance with the EPA publication 1828.2.

8.5 Implications on planning process and permitting

When considering the environmental process to be used to progress site development, consideration must be made of the requirements of *Ministerial Direction No.1 – Potentially Contaminated Land* that requires planning authorities to satisfy themselves that the environmental condition of the land to be used for a purpose is, or will be, suitable for that use.

Table 3 of the Practice Note Potentially Contaminated Land (DELWP, 2021) allows planners to consider the level of contamination at a site and the proposed land use to determine the level of environmental assessment required. Table 2 states the following regarding agricultural land use:

"While most agricultural land is not likely to be contaminated, the potential for specific contaminating activities to have occurred over time should be considered, including:

- *Commercial use of pesticides (including herbicides, fungicides etc)*
- *Biosolids application to land*
- *Farm waste disposal"*

There is limited evidence that any of these activities, or other medium or high contamination risk activities, have occurred at the site. In our assessment there is a low risk of contamination at the site which can be managed through the implementation of the recommendations set out in Section 10 of this report. As such, it is unlikely that further assessment will be required by the Planning Authority other than this assessment and completion of the recommended actions.

Should the Planning Authority assess the contamination potential as Medium, the Planning Authority may request a Preliminary Risk Screen Assessment (PRSA) by an Environmental Auditor (under Section 204 of the Environment Protection Act 2017) to:

- *assess the likelihood of the presence of contaminated land; and*
- *determine if an environmental audit is required; and*
- *if an environmental audit is required, to recommend a scope for the environmental audit.*

The PRSA is a new system in Victoria under the EP Act 2017. This report has confirmed that the contamination risks at the site are low and as such we would expect that a PRSA undertaken by an Environmental Auditor would likely come to a similar conclusion.

8.6 Environmental Duties

As specified in the Environment Protection Act (2017) which came into effect on 1 July 2021, the Duties for Contaminated Land apply to anyone in management or control of contaminated land and takes into consideration the Duty to Inform or General Environmental Duty (GED), Duty to Manage and Duty to Notify of Contamination. The Duties for Contaminated Land should be assessed considering the following:

1) **General Environmental Duty (GED):** relates to the 'state of knowledge' one has in relation to the risk of harm from an activity and the reduction of risks on human health or the environment.
2) **Duty to Manage (reduce the risk of harm):** expected when a person knows or ought to reasonably know that the land is potentially contaminated.

3) **Duty to Notify:** relates to notifiable contamination that requires management or control. If site sampling reports contaminants above human health investigation levels, the site is considered for Notification to EPA of contaminated land.

Based on the information to date, no contamination has been identified at the shallow soils across the site. As such, in our opinion the site is unlikely to be defined as contaminated land so that the GED would apply to the party in control of the land.

9.0 RECOMMENDATIONS

The following actions are recommended prior to or as part of development:

- Assessment of soil condition within the fenced homestead area in the north eastern portion of the site be undertaken through a program of shallow soil sampling to better assess soil condition around the site infrastructure and the need for remediation.
- Further sampling of soil stockpiles identified on site in the northwest should be undertaken to classify the stockpiled materials should these stockpiles be proposed for on-site reuse or off-site disposal.
- Once access is available, a HAZMAT survey should be undertaken at the homestead infrastructure area, and any identified ACM or other hazardous materials should be removed from site and disposed should demolition of the homestead infrastructure area be proposed. Following demolition of infrastructure, soil beneath the footprints should be inspected for signs of visual contamination or odour as validated by an Environmental Consultant.
- Identified anthropogenic materials (i.e. burnt, rusted drums and concrete slab in the northwest portion of the site) and other wastes if identified should be removed from site and visually verified as having been removed.
- There will remain a level of uncertainty in relation to past activities over the site. It is therefore recommended that the uncertainty in the residual risk of contamination is managed via a general soil management protocol to be adopted during the development of the site. The protocol would note:
  - The GED in relation to parties in control of the site;
  - Should any stained or odorous soils or soils containing waste be identified, that these are assessed by an Environmental Consultant;
  - All material suspected of being ACM should be assessed by a suitably qualified practitioner. Any ACM should be handled and disposed of by a suitably qualified and licenced asbestos contractor;
  - Any soil brought to site as fill are confirmed as meeting the EPA requirements for Fill Material; and
  - Any soil taken off-site meets the EPA requirements for the off-site disposal of soils.

10.0 IMPORTANT INFORMATION

Your attention is drawn to the document titled - “Important Information Relating to this Report”, which is included in Appendix H of this report. The statements presented in that document are intended to inform a reader of the report about its proper use. There are important limitations as to who can use the report and how it can be used. It is important that a reader of the report understands and has realistic expectations about those matters. The Important Information document does not alter the obligations Golder Associates has under the contract between it and its client.

11.0 REFERENCES

Australian Standards, 2005, 4482.1 Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds.

Department of Environment, Land, Water and Planning, 2019. Visualising Victoria's Groundwater, http://www.vvg.org.au/

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EPA Victoria, 2009, IWRG 702, Soil Sampling, June 2009.

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EPA Victoria, 2021, Publication 1828.2, Waste disposal categories – characteristics and thresholds, March 2021

Environment Reference Standard (2021). Victorian Government Gazette No. S245 26 May 2021, Government of Victoria.

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National Environment Protection Council, 2013, National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1) (NEPM 2013).

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Signature Page

Golder Associates Pty Ltd

Raisa Gamboa
Environmental Engineer

Ian Kluckow
Principal

RG/IMK

A.B.N. 64 006 107 857

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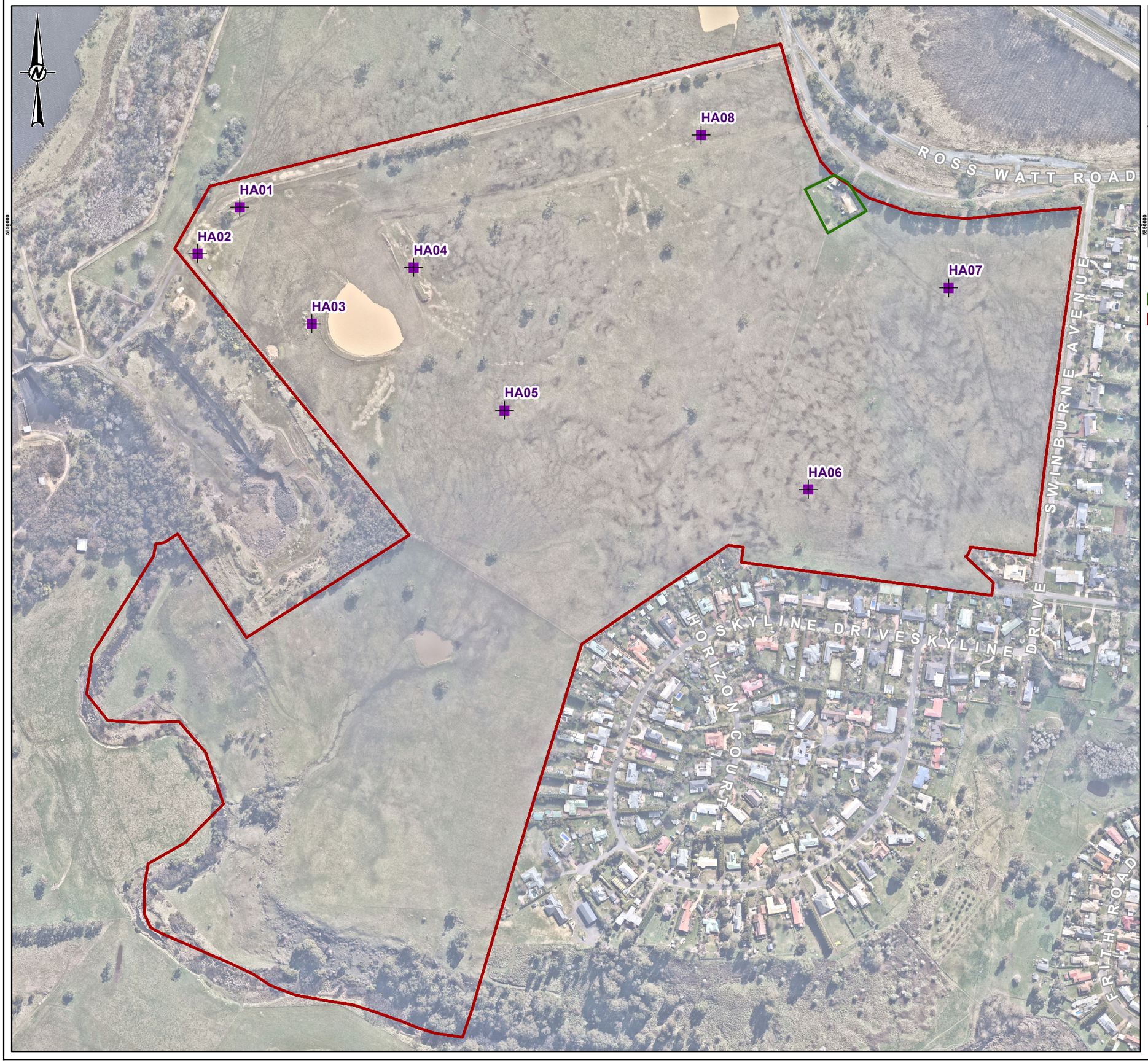
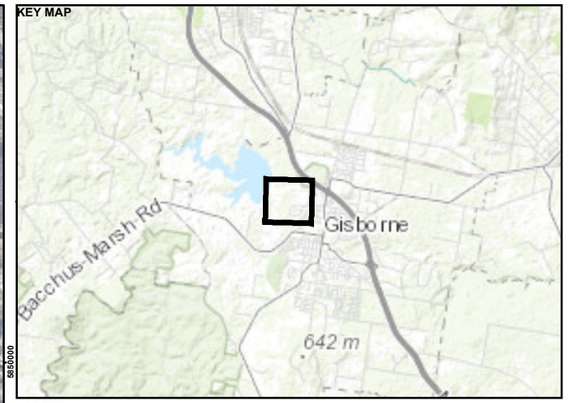
Figure



KEY MAP



LEGEND

- Soil Sampling Location
- No Access Area
- Site Boundary

0 100 200

1:5,000 METRES

NOTE(S)
COORDINATE SYSTEM: GDA2020 MGA ZONE 55

REFERENCE(S)
1. IMAGERY SOURCED FROM NEARMAP.COM, DATE OF CAPTURE 28/08/2021
2. KEYMAP SOURCED FROM ESRI ONLINE BASEMAPS
3. CONTAINS VICMAP INFORMATION - (C) STATE OF VICTORIA

CLIENT
ID LAND PTY LTD

PROJECT
89 ROSS WATT ROAD, GISBORNE – ENVIRONMENTAL SITE ASSESSMENT

TITLE
SOIL SAMPLING LOCATION PLAN

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	10-09-2021
DESIGNED	FS
PREPARED	FS
REVIEWED	IMK
APPROVED	IMK

PROJECT NO.	CONTROL	REV.	FIGURE
21473472	001-R	0	F1

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APPENDIX A

Certificates of Title

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 07183 FOLIO 527 Security no : 124090940285S
Produced 03/07/2021 11:07 AM

********** FOLIO IS CANCELLED **********

** Folio is on Imaging. See Imaging System **

THIS FOLIO HAS BEEN CANCELLED

SEE FOLIOS:

7602/147 CANCELLED

DOCUMENT END

Delivered from the LANDATA® System by InfoTrack Pty Ltd.

Entered in the Register Book

Vol. 7183 Fol. 1436527

VICTORIA.

CANCELLED

PAROL INDEX SECONDARY STORAGE 1.9.49.

Certificate of Title,

UNDER THE "TRANSFER OF LAND ACT 1928."

Hugh Ross Elmslie Thomson and Hugh Ross Thomson both of Rosslynne New Gisborne Graziers are now the proprietors as tenants in common in equal shares - - - - - - - ~~now the proprietor~~ of an Estate in Fee-simple, subject to the Encumbrances notified hereunder in All those pieces of Land, delineated and coloured red - and green - on the map on the sheet annexed hereto and in the surface and down to the --- depth of Fifty feet below the surface of ALL THOSE pieces of land delineated and - coloured purple and blue on the said map containing altogether One thousand five - hundred and ninety-three acres One rood and Thirty-three perches or thereabouts -- being Lots 13, 14, 16, 18, 19 part of Lots 17 and 26 and a road on Plan of ------ Subdivision No.5226 lodged in the Office of Titles and being Crown Allotments One, Two, Three and Six Section Thirty-four A Crown Portions A and Sixty-one and part of Crown Portion B and parts of Crown Sections B two and Thirty-five Parish of --- Gisborne County of Bourke -

ORIGINAL CERTIFICATE.
Not to be dealt with outside the Titles Office.

Dated the Fourth day of October One thousand nine hundred and forty-eight.

J. Hewison
Assistant Registrar of Titles.

OFFICE OF TITLES VICTORIA

ENCUMBRANCES REFERRED TO.

As to the land coloured blue ---

ANY EASEMENTS affecting the same - - - - - - - -

As to the land coloured green ---

THE EASEMENT to State Electricity Commission of Victoria created by Instrument No.1500865 in the Register Book --

As to the whole of the land ---

MORTGAGES Nos.643452, 752894 and ~~810863~~ in the Register Book -

Mortgage No. 810863 is DISCHARGED
J. Hewison
Assistant Registrar of Titles
20th July 1949

This endorsement must be made on the duplicate
Made on 26.8.52

T07183-527-1-3

The Measurements are in

Vol. 4242 Fol. 848322 Transfer. 2168166 Application.

Red Ink No. 4971924 As to the interest of Hugh Ross Elmslie Thomson (in Probate called Hugh Ross Emslie Thomson) who died on 28 Nov 1948 Probate of his Will has been granted to Gladys Mary Thomson of Rosslyn Gisborne Widow, Arthur Hose Bullivant of 12 Marne Street South Yarra Gentleman and Percy Howard Spence of 18 Aroona Road Caulfield Law Clerk

Dated 13 Nov 1950

Assistant Registrar of Titles

18/6/52

TRANSFER as to the interest of Gladys Mary Thomson Arthur Hose Bullivant and Percy Howard Spence to Hugh Ross Thomson registered on 13 Nov 1950 numbered 2360276

CANCELLED see Certificate of Title Vol. 7602 Fol. 147

Assistant Registrar of Titles

CANCELLED

DUP. WITH

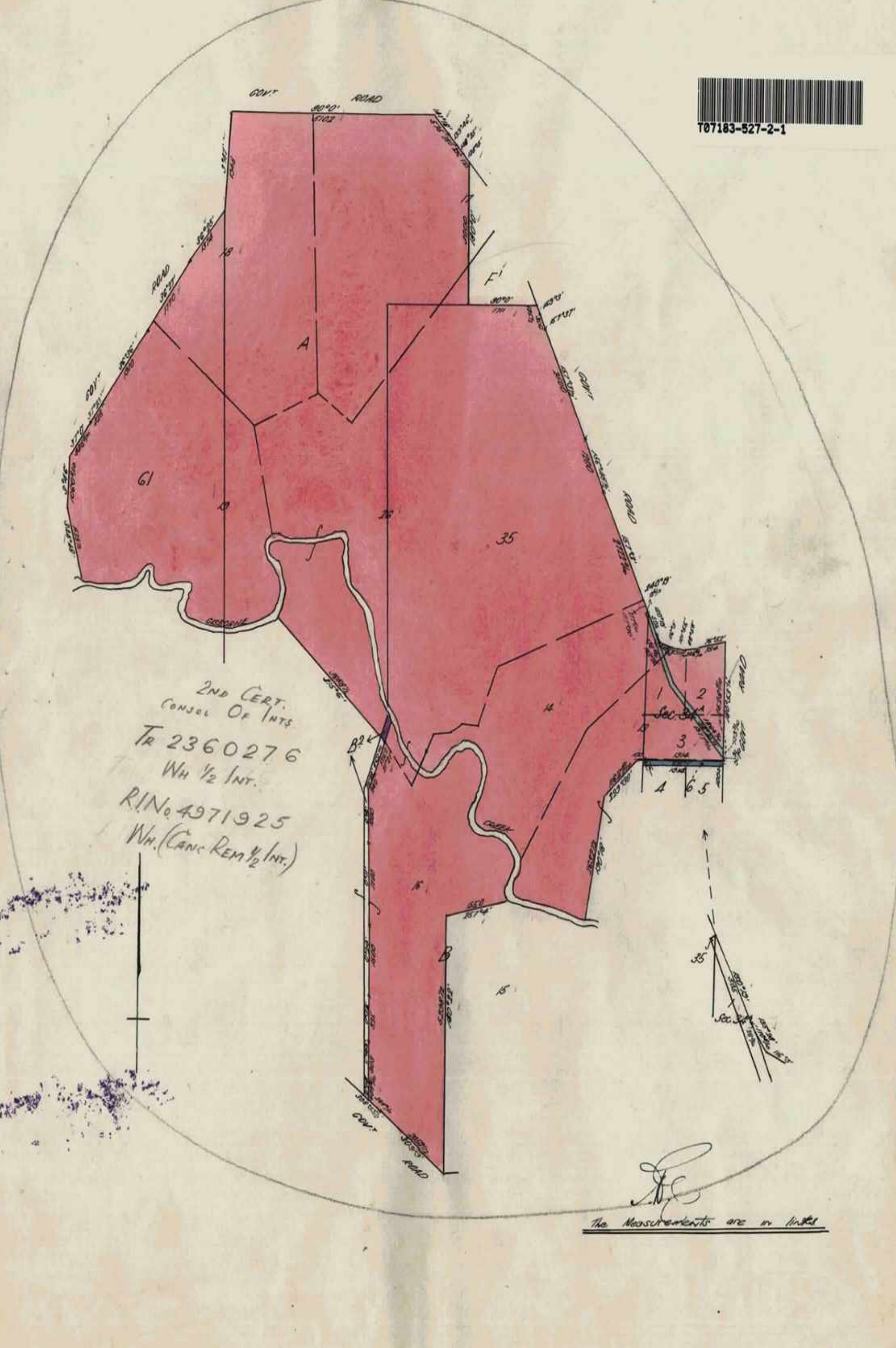
MAY 1952

462915 ... 1/12

This is the Annexed Sheet referred to in Certificate of Title entered in the Register Book, Vol. 7183 *Fol.* 436527

Assistant Registrar of Titles.

T07183-527-2-1



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The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 09633 FOLIO 633 Security no : 124090940284T
Produced 03/07/2021 11:07 AM

LAND DESCRIPTION

Lot 1 on Title Plan 844764W (formerly known as part of Lot 14 on Plan of Subdivision 005226).
PARENT TITLE Volume 07602 Folio 147
Created by instrument L624210X 19/04/1985

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
BARRO GROUP PTY LTD of 191 DRUMMOND STREET CARLTON 3053
U851542D 02/07/1997

ENCUMBRANCES, CAVEATS AND NOTICES

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP844764W FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

DOCUMENT END

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 10099 FOLIO 540 Security no : 124090940283U
Produced 03/07/2021 11:07 AM

LAND DESCRIPTION

Lot A on Plan of Subdivision 318022T.
PARENT TITLES :
Volume 09633 Folio 634 Volume 09816 Folio 617
Created by instrument S284878J 02/02/1993

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
BARRO GROUP PTY LTD of 191 DRUMMOND ST CARLTON 3053
U851542D 02/07/1997

ENCUMBRANCES, CAVEATS AND NOTICES

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS318022T FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

DOCUMENT END

APPENDIX B

Historical Aerial Photographs and Maps

1984 – The site was an open agricultural area. The dam in the northwest portion of the site was visible. No other infrastructure was present on site. The homestead infrastructure that currently exists on site was not yet visible in 1984. A quarry was present adjacent to the western boundary of the site.

1989 – The homestead infrastructure (main house and shed) was present in the northeastern part of the site. The dam in the northwest portion of the site had been enlarged. Another dam in the southern central portion of the site appeared. Stockpiles of soil were present in the northwest corner of the site. Construction was on-going to the southeast of the site.

2010 – Additional structures were present in the homestead area in the northeast portion of the site. A child care centre was present adjacent of the site to the east. Stockpiles of soil were still present in the northwest corner of the site and to the east and west of the large dam. The residential estate to the southeast of the site was completed.

2010 (zoomed aerial image of the homestead area) – The homestead area was grassed with mature trees and shrubs. Infrastructure includes a single story brick house (with associated water tank) in the southeast portion, main shed with an attached water tank to the north of the house and an unknown structure to the southwest corner.

Nov 2012 (zoomed aerial image of the homestead area) – Additional structures were present in the southwest portion of the homestead area (which appeared to be large containers).

Dec 2016 (zoomed aerial image of the homestead area) – Large structures present in the 2010-2012 photo in southwest portion of the homestead area were removed. Additional structure was present to the southwest of the main shed.

May 2019 (zoomed aerial image of the homestead area) – Additional structures (appeared to be shipping containers) were present to the southwest of the main shed. Stockpile of waste was present to the west of the added containers.

March 2020 – No significant change can be observed in the site except for the homestead area (shown in next image below).

March 2020 (zoomed aerial image of the homestead area) – Some structures in the northern portion were removed. There appeared to be a burnt waste in the northwest corner of the area,

April 2021 – No significant change can be observed in the site except for the homestead area (shown in next image below).

April 2021 (zoomed aerial image of the homestead area) – The previous structure in the northern portion was removed (where the footprint was visible in the photo). The likely burnt waste in the northwest portion was still visible. Additional structure was placed to the southwest of the main shed.

APPENDIX C

Site Photographs

Photograph 1: Homestead Area: Main House

Photograph 2: Homestead Area: Main Shed and Water Tank

Photograph 3: Homestead Area: Burn Area

Photograph 4: Homestead Area: Greenhouse and Metal Containers

Photograph 5: Pastoral Area

Photograph 6: Pastoral Area: Cattle and Dam

Photograph 7: Pastoral Area: Circular Concrete Tank

Photograph 8: Pastoral Area: Rusted 205 L drum

Photograph 8: Pastoral Area: Pile of Soil

Photograph 9: Pastoral Area: Pile of Soil

APPENDIX D

Borelogs

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA01

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.80 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	*0.05*	HA01/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0 ppm				FILL: Clayey SILT high plasticity, brown, trace gravel, fine to medium, rounded to sub-rounded, organics	M	S - Fb	<5% gravel, reworked natural
									no organics, no gravel			
			0.5		HA01/2002 0.60-0.70 m Rec = 100/100 mm R = 0A PID = 0 ppm							Note: Sampling location HA01 was hand-augered on top of a soil stockpile/mound.
									END OF HAND AUGER @ 0.80 m TARGET DEPTH			
			1.0									

This report of hand augered borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA02

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.65 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0									
HA				0.05	HA02/2001 0.00-0.05 m Rec = 50/50 mm R = 0A PID = 0 ppm				FILL: Clayey SILT high plasticity, brown, trace gravel, fine to medium, angular to sub-angular	M	S	
									FILL: Silty Sandy GRAVEL fine to medium, grey		MD	
			0.5		HA02/2002 0.50-0.60 m Rec = 100/100 mm R = 0A PID = 0 ppm					W		perched water
									END OF HAND AUGER @ 0.65 m TARGET DEPTH			
			1.0									

This report of hand augered borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA03

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.50 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	0.05	HA03/2001 HA03/2801 HA03/2901 0.00-0.05 m Rec = 50/50 mm R = 0A PID = 0 ppm				FILL: Silty CLAY high plasticity, brown, organics	M	S	reworked natural
									trace gravel, medium, sub-rounded		F	Note: Sampling location HA03 was hand-augered on top of a soil stockpile/mound.
					HA03/2002 0.40-0.50 m Rec = 100/100 mm R = 0A PID = 0 ppm							
			0.5						END OF HAND AUGER @ 0.50 m TARGET DEPTH			
			1.0									

This report of hand augered borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA04

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.80 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		HA04/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0.2 ppm				FILL: Clayey SILT high plasticity, brown, trace gravel, fine to medium, sub-rounded, organics	M	S	reworked natural Note: Sampling location HA04 was hand-augered on top of a soil stockpile/mound.
				0.40					FILL: Gravelly Sandy CLAY medium plasticity, brown, fine to medium, sub-angular to sub-rounded gravel, fine to coarse grained sand			
			0.5		HA04/2002 0.55-0.65 m Rec = 100/100 mm R = 0A PID = 0.1 ppm					W	VS	
									END OF HAND AUGER @ 0.80 m TARGET DEPTH			
			1.0									

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GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA05

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.75 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		HA05/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0 ppm				FILL: Clayey SILT high plasticity, grey/brown	M	S	
				0.30					FILL: Gravelly CLAY high plasticity, brown, fine to medium, sub-angular to sub-rounded			
			0.5		HA05/2002 0.40-0.50 m Rec = 100/100 mm R = 0A PID = 0 ppm					W		
				0.55	HA05/2003 0.55-0.65 m Rec = 100/100 mm R = 0A PID = 0 ppm				CLAY high plasticity, brown/orange	M	F	
									END OF HAND AUGER @ 0.75 m TARGET DEPTH			
			1.0									

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GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA06

SHEET: 1 OF 1

CLIENT:	ID Land	COORDS: MGA94 55	
PROJECT:	89 Ross Watt Road - ESA	SURFACE RL: DATUM: AHD	
LOCATION:	89 Ross Watt Road, Gisborne	INCLINATION: -90°	LOGGED: MF DATE: 27/8/21
JOB NO:	21473472	HOLE DEPTH: 0.60 m	CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		HA06/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0 ppm				Clayey SILT high plasticity, brown	M	S	
				0.20								
					HA06/2002 0.20-0.30 m Rec = 100/100 mm R = 0A PID = 0 ppm				trace sub-rounded gravel, fine to coarse grained	W	VS	
				0.40								
			0.5		HA06/2003 0.50-0.60 m Rec = 100/100 mm R = 0A PID = 0 ppm				Silty CLAY high plasticity, brown/orange	M	F	
									END OF HAND AUGER @ 0.60 m TARGET DEPTH			
			1.0									

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GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA07

SHEET: 1 OF 1

CLIENT: ID Land
PROJECT: 89 Ross Watt Road - ESA
LOCATION: 89 Ross Watt Road, Gisborne
JOB NO: 21473472

COORDS: MGA94 55
SURFACE RL: DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 0.70 m

LOGGED: MF DATE: 27/8/21
CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		HA07/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0 ppm				Clayey SILT high plasticity, brown	W	VS	perched water
				0.40					Silty CLAY high plasticity, brown/orange	M	S	
			0.5		HA07/2002 0.50-0.60 m Rec = 100/100 mm R = 0A PID = 0 ppm							
									END OF HAND AUGER @ 0.70 m TARGET DEPTH			
			1.0									

This report of hand augered borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

GAP gINT FN. F01a
RL3

GOLDER
MEMBER OF WSP

REPORT OF HAND AUGERED BOREHOLE: HA08

SHEET: 1 OF 1

CLIENT:	ID Land	COORDS: MGA94 55	
PROJECT:	89 Ross Watt Road - ESA	SURFACE RL: DATUM: AHD	
LOCATION:	89 Ross Watt Road, Gisborne	INCLINATION: -90°	LOGGED: MF DATE: 27/8/21
JOB NO:	21473472	HOLE DEPTH: 0.70 m	CHECKED: RG DATE: 10/9/21

Drilling					Sampling		Field Material Description				
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		HA08/2001 0.00-0.10 m Rec = 100/100 mm R = 0A PID = 0 ppm				FILL: Clayey SILT high plasticity, grey/brown, trace fine to medium gravel, sub-angular to sub-rounded	M	S	
				0.20					FILL: Gravelly CLAY high plasticity, brown/grey, fine to medium, sub-rounded to sub-angular gravel	W	VS	
				0.45	HA08/2002 0.30-0.40 m Rec = 100/100 mm R = 0A PID = 0.6 ppm				Silty CLAY high plasticity, brown/orange	M	F	
			0.5		HA08/2003 0.50-0.60 m Rec = 100/100 mm R = 0A PID = 6 ppm				END OF HAND AUGER @ 0.70 m TARGET DEPTH			
			1.0									

This report of hand augered borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

GAP gINT FN. F01a
RL3

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EXPLANATION OF NOTES, ABBREVIATIONS & TERMS USED ON BOREHOLE AND TEST PIT REPORTS

DRILLING/EXCAVATION METHOD

ADH	Hollow auger drilling	EX	Excavator	PQ3	Diamond core - 83 mm
ADT	Auger drilling with tc-bit	HA	Hand auger	PT	Push tube sampling
ADV	Auger drilling with v-bit	HAND	Excavated by hand methods	RAB	Rotary air blast
AIRCORE	Aircore	HMLC	Diamond core - 63 mm	RC	Reverse circulation
AT	Air track	HQ3	Diamond core - 61 mm	RD	Rotary Drilling
BH	Backhoe bucket	JET	Jetting	RT	Rock roller
CT	Cable tool rig	MZ	Mazier tube sampling	SONIC	Sonic drilling
DTC	Diatube coring	NDD	Non-destructive digging	SPT	Standard penetration testing
EE	Existing excavation	NMLC	Diamond core - 52 mm	U	Undisturbed tube sampling
EPT	Extruded push tube	NQ3	Diamond core - 45 mm	WB	Washbore drilling

PENETRATION/EXCAVATION RESISTANCE

L **Low resistance.** Rapid penetration possible with little effort from the equipment used.

M **Medium resistance.** Excavation/possible at an acceptable rate with moderate effort from the equipment used.

H **High resistance** to penetration/excavation. Further penetration is possible at a slow rate and requires significant effort from the equipment.

R **Refusal or Practical Refusal.** No further progress possible without the risk of damage or unacceptable wear to the digging implement or machine.

These assessments are subjective and are dependent on many factors including the equipment power, weight, condition of excavation or drilling tools, and the experience of the operator.

WATER

	Water level at date shown		Partial water loss
	Water inflow		Complete water loss

GROUNDWATER NOT OBSERVED	The observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage or cave in of the borehole/test pit.
GROUNDWATER NOT ENCOUNTERED	The borehole/test pit was dry soon after excavation. However, groundwater could be present in less permeable strata. Inflow may have been observed had the borehole/test pit been left open for a longer period.

SAMPLING AND TESTING

SPT	Standard Penetration Test to AS1289.6.3.1-2004
4,7,11 N=18	4,7,11 = Blows per 150mm. N = Blows per 300mm penetration following 150mm seating
30/80 mm	Where practical refusal occurs, the blows and penetration for that interval are reported
RW	Penetration occurred under the rod weight only
HW	Penetration occurred under the hammer and rod weight only
HB	Hammer double bouncing on anvil
DS	Disturbed sample
BDS	Bulk disturbed sample
G	Gas Sample
W	Water Sample
FP	Field permeability test over section noted
FV	Field vane shear test expressed as uncorrected shear strength (sv = peak value, sr = residual value)
PID	Photoionisation Detector reading in ppm
PM	Pressuremeter test over section noted
PP	Pocket penetrometer test expressed as instrument reading in kPa
U63	Thin walled tube sample - number indicates nominal sample diameter in millimetres
WPT	Water pressure test
DCP	Dynamic cone penetration test
CPT	Cone penetration test
CPTu	Cone penetration test with pore pressure (u) measurement

RANKING OF VISUALLY OBSERVABLE CONTAMINATION AND ODOUR (for specific soil contamination assessment projects)

R = 0	No visible evidence of contamination	R = A	No non-natural odours identified
R = 1	Slight evidence of visible contamination	R = B	Slight non-natural odours identified
R = 2	Visible contamination	R = C	Moderate non-natural odours identified
R = 3	Significant visible contamination	R = D	Strong non-natural odours identified

ROCK CORE RECOVERY

TCR = Total Core Recovery (%)	RQD = Rock Quality Designation (%)	SCR = Solid Core Recovery (%)	F = Fracture Frequency
$= \frac{\text{Length of core recovered}}{\text{Length of core run}} \times 100$	$= \frac{\sum \text{Axial lengths of core} > 100\,\text{mm}}{\text{Length of core run}} \times 100$	$= \frac{\sum \text{Length of cyclindrical core recovered}}{\text{Length of core run}} \times 100$	$= \frac{\text{No. of defects}}{\text{Length of zone (m)}}$

GOLDER
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METHOD OF SOIL DESCRIPTION USED ON BOREHOLE AND TEST PIT REPORTS

SYMBOLS


FILL


GRAVEL (GW, GP, GM or GC)


SAND (SW, SP, SM or SC)


SILT (ML or MH)


CLAY (CL, CI or CH)


ORGANIC SOILS (OL, OH or Pt)


COBBLES or BOULDERS

Combinations of these basic symbols may be used to indicate mixed materials such as sandy clay.

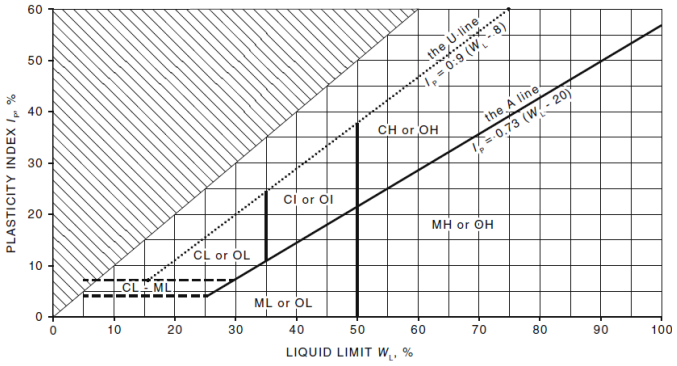
CLASSIFICATION AND INFERRED STRATIGRAPHY

Soil and Rock is classified and described in Reports of Boreholes and Test Pits using the preferred method given in AS1726-2017. The material properties are assessed in the field by visual/tactile methods.

Particle Size

Soil Group	Sub Division	Particle Size
BOULDERS		> 200 mm
COBBLES		63 to 200 mm
GRAVEL	Coarse	19 to 63 mm
	Medium	6.7 to 19 mm
	Fine	2.36 to 6.7 mm
SAND	Coarse	0.6 to 2.36 mm
	Medium	0.21 to 0.6 mm
	Fine	0.075 to 0.21 mm
SILT		0.002 to 0.075 mm
CLAY		< 0.002 mm

Plasticity Properties



MOISTURE CONDITION

Symbol	Term	Description
D	Dry	Sands and gravels are free flowing. Clays and silts may be brittle or friable and powdery.
M	Moist	Soils are darker than in dry condition and may feel cool. Sands and gravels tend to cohere.
W	Wet	Soils exude free water. Sand and gravels tend to cohere.

Moisture condition for fine grained soils is described relative to the plastic limit or liquid limit as specified in AS1726-2017.

CONSISTENCY AND DENSITY

Fine Grained Soils

Symbol	Term	Undrained Shear Strength
VS	Very Soft	0 to 12 kPa
S	Soft	12 to 25 kPa
F	Firm	25 to 50 kPa
St	Stiff	50 to 100 kPa
VSt	Very Stiff	100 to 200 kPa
H	Hard	Above 200 kPa
Fr	Friable	-

Coarse Grained Soils

Symbol	Term	Density Index (%)	SPN "N" *
VL	Very Loose	Less than 15	0 to 4
L	Loose	15 to 35	4 to 10
MD	Medium Dense	35 to 65	10 to 30
D	Dense	65 to 85	30 to 50
VD	Very Dense	Above 85	Above 50

In the absence of test results, consistency and density may be assessed from correlations with the observed behaviour of the material.

* SPT correlations are not stated in AS1726-2017, and may be subject to corrections for overburden pressure and equipment type.

CEMENTATION

Weakly Cemented	The soil may be easily disaggregated by hand in air or water.
Moderately Cemented	Effort is required to disaggregate the soil by hand in air or water.

APPENDIX E

Data Tables

					Halogenated Benzenes								Heavy Metals													Herbicides	MAH															
					1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Arsenic	Cadmium	Chromium	Chromium (hexavalent)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	Dinoseb	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Isopropylbenzene	Styrene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total MAHs (Lab Reported)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	2	0.4	5	1	5	5	0.1	5	5	2	2	10	5	20	0.5	0.5	0.1	0.1	0.5	0.5	0.1	0.2	0.1	0.3	0.5
Buildings & Structures																																										
NEPM 2013 EILs-Urban Residential and public open space													100		410		200	1100			170				440																		
NEPM 2013 ESL- Urban residential and public open space, Fine Soil																													65	105			125			45					
NEPM 2013 HIL- Residential A Soil												10	100	20		100	6000	300	40		400	200			7400																	
NEPM 2013 HIL-Recreational C Soil												10	300	90		300	17000	600	80		1200	700			30000																	
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																																										
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																																										
0-1m																													0.6	390			55			95					
1-2m																													0.7	220						210					
2-4m																													1	310						95					
>4m																													2	540						170					
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																																						
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	3.1	<0.4	71	<1	<5	14	<0.1	<5	8.9	<2	<2	<10	9.8	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<2	<0.4	6.8	<1	18	<5	<0.1	<5	28	<2	<2	<10	60	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	<0.05	<2	<0.4	8.1	-	24	<5	<0.1	-	38	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	4	<0.4	84	<1	7.4	16	<0.1	<5	13	<2	<2	<10	11	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	<0.05	4.4	<0.4	100	-	<5	24	<0.1	-	14	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	10	<0.4	160	<1	<5	31	<0.1	<5	12	<2	<2	<10	9	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<2	<0.4	22	<1	<5	12	<0.1	<5	<5	<2	<2	<10	11	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	<0.05	<2	<0.4	18	-	<5	11	<0.1	-	<5	-	-	-	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	<0.05	8.2	<0.4	130	-	<5	43	<0.1	-	13	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-

				Organochlorine Pesticides																								
				p,p-DDE	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	b-BHC	Chlordane (Sum of total)	d-BHC	DDD	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Vic EPA 1828.2 OCP (Total)	Methoxychlor	Other OCPs (IWRG Lab Reported)	Toxaphene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	mg/kg	mg/kg	mg/kg
EQL				0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.1	0.5
Buildings & Structures																												
NEPM 2013 EILs-Urban Residential and public open space												180	180															
NEPM 2013 ESL- Urban residential and public open space, Fine Soil																												
NEPM 2013 HIL- Residential A Soil							6		50				240					10				6			300		20
NEPM 2013 HIL-Recreational C Soil							10		70				400					20				10			400		30
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																												
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																												
0-1m																												
1-2m																												
2-4m																												
>4m																												
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																								
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5

							Organophosphorous Pesticides																															
							Azinphos-methyl	Bolstar	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Coumaphos	Demeton-o	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Parathion-methyl	Mevinphos	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Prothiofos	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL							0.2	0.2	0.2	0.2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Buildings & Structures																																							
NEPM 2013 EILs-Urban Residential and public open space																																							
NEPM 2013 ESL- Urban residential and public open space, Fine Soil																																							
NEPM 2013 HIL- Residential A Soil										160																													
NEPM 2013 HIL-Recreational C Soil										250																													
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																																							
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																																							
0-1m																																							
1-2m																																							
2-4m																																							
>4m																																							
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																																			
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA02	HA02/2001	0-0.05	fill	2021-08-27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA02	HA02/2002	0.5-0.6	fill	2021-08-27			<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27			<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA05	HA05/2001	0-0.1	fill	2021-08-27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA06	HA06/2001	0-0.1	natural	2021-08-27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA07	HA07/2001	0-0.1	natural	2021-08-27			<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA08	HA08/2001	0-0.1	fill	2021-08-27			<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

					PAH																					Pesticides-Others	Phenolics											Phenolics-Halogenated									
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	Pirimiphos-methyl	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol	Non-Halogenated Phenols (Sum of total)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Tetrachlorophenols (Sum of total)	Halogenated Phenols (Sum of total)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	5	0.2	1	0.4	5	20	5	0.5	0.5	20	1	1	0.5	0.5	0.5	1	1	10	1
Buildings & Structures																																															
NEPM 2013 EILs-Urban Residential and public open space																					170																										
NEPM 2013 ESL- Urban residential and public open space, Fine Soil									0.7																																					
NEPM 2013 HIL- Residential A Soil						3	3	3															300			400		400				400	3000									100			
NEPM 2013 HIL-Recreational C Soil						3	3	3															300			4000		4000				4000	40000									120			
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																																														
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																																														
0-1m																					4																										
1-2m																																															
2-4m																																															
>4m																																															
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																																										
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Polychlorinated Biphenyls								Sample Quality Parameters				Solvents			Total Petroleum Hydrocarbons											
					Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1221	PCB (Sum of Total-Lab Reported)	Cyanide (total)	Fluoride	Moisture	pH (aqueous extract)	Methyl Ethyl Ketone	Methyl iso-butyl ketone	Acetone	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH+C10 - C36 (Sum of total) (Lab Reported)	TRH+C10 - C40 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	pH_Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5	100	1	0.1	0.5	0.5	0.5	20	20	50	50	50	100	20	20	50	50	100	100
Buildings & Structures																															
NEPM 2013 EILs-Urban Residential and public open space																															
NEPM 2013 ESL- Urban residential and public open space, Fine Soil																										180	120		1300	5600
NEPM 2013 HIL- Residential A Soil												1																			
NEPM 2013 HIL-Recreational C Soil												1																			
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																									800		1000		3500		
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																															
0-1m																										45		230			
1-2m																										70		240			
2-4m																										110		440			
>4m																										200					
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																											
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	22	6	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	19	7.2	<0.5	<0.5	<0.5	<20	<20	<50	57	57	<100	<20	<20	<50	<50	<100	<100
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	480	24	7.6	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	130	22	6.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	30	6.7	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1- Soil Analytical Results (NEPM)

					Volatile Organic Compounds																																				
					Total Chlorinated Hydrocarbons VIC EPA	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	Allyl chloride	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Dichloromethane	Hexachlorobutadiene	Iodomethane	Total Other Chlorinated Hydrocarbons VIC EPA	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Buildings & Structures																																									
NEPM 2013 EILs-Urban Residential and public open space																																									
NEPM 2013 ESL- Urban residential and public open space, Fine Soil																																									
NEPM 2013 HIL- Residential A Soil																																									
NEPM 2013 HIL-Recreational C Soil																																									
NEPM 2013 Mgmt Limits - Residential, parkland and public open space, Fine Soil																																									
NEPM 2013 Residential Soil HSL A/B for Vapour Intrusion, Silt																																									
0-1m																																									
1-2m																																									
2-4m																																									
>4m																																									
Location	**Field_ID**	**Sample_Depth**	**Horizon**	**Date**																																					
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Halogenated Benzenes								Heavy Metals														Herbicides	MAH										
					1,2,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Arsenic	Cadmium	Chromium	Chromium (hexavalent)	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Zinc	Dinoseb	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Isopropylbenzene	Styrene	Ethylbenzene	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total) (Lab Reported)	Total MAHs (Lab Reported)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	2	0.4	5	1	5	5	0.1	5	5	2	2	10	5	20	0.5	0.5	0.1	0.1	0.5	0.5	0.1	0.2	0.1	0.3	0.5
VIC EPA 1828.2 Cat B Upper Limit						24000		640			4800		2000	400		2000	20000	6000	300	4000	12000	40000	720		140000				16	12800		480	4800			9600	
VIC EPA 1828.2 Cat C Upper Limit						6000		160			1200		500	100		500	5000	1500	75	1000	3000	10000	180		35000				4	3200		120	1200			2400	
VIC EPA 1828.2 Cat D Upper Limit						6000		160			1200		500	100		500	5000	1500	75	1000	3000	10000	180		35000				4	3200		120	1200			2400	
VIC EPA 1828.2 Fill Material Upper Limit													20	3		1	100	300	1	40	60	10	10	50	200				1								7
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																																	
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	3.1	<0.4	71	<1	<5	14	<0.1	<5	8.9	<2	<2	<10	9.8	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<2	<0.4	6.8	<1	18	<5	<0.1	<5	28	<2	<2	<10	60	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	<0.05	<2	<0.4	8.1	-	24	<5	<0.1	-	38	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	4	<0.4	84	<1	7.4	16	<0.1	<5	13	<2	<2	<10	11	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	<0.05	4.4	<0.4	100	-	<5	24	<0.1	-	14	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	10	<0.4	160	<1	<5	31	<0.1	<5	12	<2	<2	<10	9	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<2	<0.4	22	<1	<5	12	<0.1	<5	<5	<2	<2	<10	11	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	<0.05	<2	<0.4	18	-	<5	11	<0.1	-	<5	-	-	-	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	<0.05	8.2	<0.4	130	-	<5	43	<0.1	-	13	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary																																					
Number of Results					5	5	5	5	5	5	5	9	9	9	9	5	9	9	9	5	9	5	5	5	9	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects					0	0	0	0	0	0	0	0	5	0	9	0	3	7	0	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<2	<0.4	6.8	<1	<5	<5	<0.1	<5	<5	<2	<2	<10	8.4	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	3.1	ND	6.8	ND	7.4	11	ND	ND	8.9	ND	ND	ND	8.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	10	<0.4	160	<1	24	43	<0.1	<5	38	<2	<2	<10	64	<20	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	<0.2	<0.1	<0.3	<0.5
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	10	ND	160	ND	24	43	ND	ND	38	ND	ND	ND	64	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.025	3.7	0.2	67	0.5	7.2	17	0.05	2.5	15	1	1	5	22	10	0.25	0.25	0.05	0.05	0.25	0.25	0.05	0.1	0.05	0.15	0.25
Median Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.025	3.1	0.2	71	0.5	2.5	14	0.05	2.5	13	1	1	5	11	10	0.25	0.25	0.05	0.05	0.25	0.25	0.05	0.1	0.05	0.15	0.25
Standard Deviation					0	0	0	0	0	0	0	0	3.4	0	56	0	8.2	13	0	0	12	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					Organochlorine Pesticides																									
					p,p-DDE	a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total) (Lab Reported)	b-BHC	Chlordane (Sum of total)	d-BHC	DDD	DDT	DDT+DDE+DDD (Sum of total) (Lab Reported)	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor epoxide	Vic EPA 1828.2 OCP (Total)	Methoxychlor	Other OCPs (IWRG Lab Reported)	Toxaphene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	mg/kg	mg/kg	mg/kg
EQL					0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.1	0.5
VIC EPA 1828.2 Cat B Upper Limit								4.8		16				50													50	
VIC EPA 1828.2 Cat C Upper Limit								1.2		4				50													10	
VIC EPA 1828.2 Cat D Upper Limit								1.2		4				50													10	
VIC EPA 1828.2 Fill Material Upper Limit																												
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																										
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
Statistical Summary																														
Number of Results					9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.5
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.05	0.25
Median Concentration					0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.05	0.25
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					Organophosphorous Pesticides																																			
					Azinphos-methyl	Bolstar	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Coumaphos	Demeton-o	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Parathion-methyl	Mevinphos	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Prothiofos	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Trichloronate
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.2	0.2	0.2	0.2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
VIC EPA 1828.2 Cat B Upper Limit																																								
VIC EPA 1828.2 Cat C Upper Limit																																								
VIC EPA 1828.2 Cat D Upper Limit																																								
VIC EPA 1828.2 Fill Material Upper Limit																																								
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																																				
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA02	HA02/2001	0-0.05	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA05	HA05/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA06	HA06/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Statistical Summary																																							
Number of Results					4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.1	0.1	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Median Concentration					0.1	0.1	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					PAH																				
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b)&(j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
VIC EPA 1828.2 Cat B Upper Limit									160															400
VIC EPA 1828.2 Cat C Upper Limit									40															100
VIC EPA 1828.2 Cat D Upper Limit									20															50
VIC EPA 1828.2 Fill Material Upper Limit									1															20
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																				
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Statistical Summary																								
Number of Results					9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Number of Detects					0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Minimum Detect					ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Maximum Detect					ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Median Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					Pesticides-Others	Phenolics											Phenolics-Halogenated										Polychlorinated Biphenyls									Sample Quality Parameters			
					Pirimiphos-methyl	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Methylphenol	2-Nitrophenol	3 - & 4 - Methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexylphenol	4-Nitrophenol	Cresols (Sum of total)	Phenol	Non-Halogenated Phenols (Sum of total)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Tetrachlorophenols (Sum of total)	Halogenated Phenols (Sum of total)	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1221	PCB (Sum of Total -Lab Reported)	Cyanide (total)	Fluoride	Moisture	pH (aqueous extract)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	pH_Units
EQL					0.2	0.5	5	0.2	1	0.4	5	20	5	0.5	0.5	20	1	1	0.5	0.5	0.5	1	1	10	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5	100	1	0.1
VIC EPA 1828.2 Cat B Upper Limit														32000		2200	64000	320	3200		4800													10000	40000		2-12.5
VIC EPA 1828.2 Cat C Upper Limit														8000		560	16000	80	800		1200												50	2500	10000		
VIC EPA 1828.2 Cat D Upper Limit														8000		560	16000	80	800		1200												2	2500	10000		4-10
VIC EPA 1828.2 Fill Material Upper Limit																60									1								2	50	450		
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																																		
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	22	6
HA02	HA02/2001	0-0.05	fill	2021-08-27	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	19	7.2
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	480	24	7.6
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	130	22	6.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	-	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	30	6.7
HA07	HA07/2001	0-0.1	natural	2021-08-27	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-
Statistical Summary																																						
Number of Results					4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	9	5
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	5
Minimum Concentration					<0.2	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<100	14	6
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	130	14	6
Maximum Concentration					<0.2	<0.5	<5	<0.2	<1	<0.4	<5	<20	<5	<0.5	<0.5	<20	<1	<1	<0.5	<0.5	<0.5	<1	<1	<10	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	480	30	7.6
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	480	30	7.6
Average Concentration					0.1	0.25	2.5	0.1	0.5	0.2	2.5	10	2.5	0.25	0.25	10	0.5	0.5	0.25	0.25	0.25	0.5	0.5	5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.5	152	21	6.8
Median Concentration					0.1	0.25	2.5	0.1	0.5	0.2	2.5	10	2.5	0.25	0.25	10	0.5	0.5	0.25	0.25	0.25	0.5	0.5	5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	2.5	50	22	6.7
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	4.6	0.62
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

					Solvents			Total Petroleum Hydrocarbons												
					Methyl Ethyl Ketone	Methyl iso-butyl ketone	Acetone	TRH C6 - C9 Fraction	TRH C10 - C14 Fraction	TRH C15 - C28 Fraction	TRH C29 - C36 Fraction	TRH+C10 - C36 (Sum of total) (Lab Reported)	TRH+C10 - C40 (Sum of total) (Lab Reported)	TRH C6 - C10 Fraction F1	TRH C6 - C10 Fraction Less BTEX F1	TRH >C10 - C16 Fraction F2	TRH >C10 - C16 Fraction Less Naphthalene F2	TRH >C16 - C34 Fraction F3	TRH >C34 - C40 Fraction F4
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	20	20	50	50	50	100	20	20	50	50	100	100
VIC EPA 1828.2 Cat B Upper Limit					32000			2600				40000							
VIC EPA 1828.2 Cat C Upper Limit					8000			650				10000							
VIC EPA 1828.2 Cat D Upper Limit					8000			325				5000							
VIC EPA 1828.2 Fill Material Upper Limit								100				1000							
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**															
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<20	<20	<50	57	57	<100	<20	<20	<50	<50	<100	<100
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary																			
Number of Results					5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects					0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
Minimum Concentration					<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<100	<20	<20	<50	<50	<100	<100
Minimum Detect					ND	ND	ND	ND	ND	ND	57	57	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.5	<0.5	<0.5	<20	<20	<50	57	57	<100	<20	<20	<50	<50	<100	<100
Maximum Detect					ND	ND	ND	ND	ND	ND	57	57	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.25	0.25	0.25	10	10	25	31	31	50	10	10	25	25	50	50
Median Concentration					0.25	0.25	0.25	10	10	25	25	25	50	10	10	25	25	50	50
Standard Deviation					0	0	0	0	0	0	14	14	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					Volatile Organic Compounds																																					
					Total Chlorinated Hydrocarbons VIC EPA	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	Allyl chloride	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Dichloromethane	Hexachlorobutadiene	Iodomethane	Total Other Chlorinated Hydrocarbons VIC EPA	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
VIC EPA 1828.2 Cat B Upper Limit						1600	210	4800	190				48	480													48			960				64	11			80	800		4.8
VIC EPA 1828.2 Cat C Upper Limit						400	52	1200	48				12	120													12			240				16	2.8			20	200		1.2
VIC EPA 1828.2 Cat D Upper Limit						400	52	1200	48				12	120													12			240				16	2.8			20	200		1.2
VIC EPA 1828.2 Fill Material Upper Limit																																									
Location_Code	**Field_ID**	**Sample_Depth_Range**	**Horizon**	**Date**																																					
HA01	HA01/2001	0-0.1	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2001	0-0.05	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02	HA02/2002	0.5-0.6	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03	HA03/2001	0-0.05	(stockpile sample)	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA04	HA04/2001	0-0.1	(stockpile sample)	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA05	HA05/2001	0-0.1	fill	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA06	HA06/2001	0-0.1	natural	2021-08-27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA07	HA07/2001	0-0.1	natural	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA08	HA08/2001	0-0.1	fill	2021-08-27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical Summary																																									
Number of Results					5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Median Concentration					0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field Duplicates (SOIL)
Filter: Lab_Report_Number in(

Chem_Group	ChemNan	Units	EQL			
Lab Report Number				820569	820569	
Field ID				HA03/2001	HA03/2801	**RPD**
Sampled Date/Time				8/27/2021	8/27/2021	
Halogenated Benze	Hexachlor	mg/kg	0.05	<0.05	<0.05	0
Heavy Metals	Arsenic	mg/kg	2	4	4.4	10
	Cadmium	mg/kg	0.4	<0.4	<0.4	0
	Chromium	mg/kg	5	**84**	**150**	**56**
	Copper	mg/kg	5	7.4	12	47
	Lead	mg/kg	5	16	17	6
	Mercury	mg/kg	0.1	<0.1	0.1	0
	Nickel	mg/kg	5	13	24	59
	Zinc	mg/kg	5	11	23	71
Organochlorine Pes	p,p-DDE	mg/kg	0.05	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	<0.05	0
	Aldrin & D	mg/kg	0.05	<0.05	<0.05	0
	b-BHC	mg/kg	0.05	<0.05	<0.05	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0
	d-BHC	mg/kg	0.05	<0.05	<0.05	0
	DDD	mg/kg	0.05	<0.05	<0.05	0
	DDT	mg/kg	0.05	<0.05	<0.05	0
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endrin	mg/kg	0.05	<0.05	<0.05	0
	Endrin ald	mg/kg	0.05	<0.05	<0.05	0
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0
	g-BHC	mg/kg	0.05	<0.05	<0.05	0
	Heptachlo	mg/kg	0.05	<0.05	<0.05	0
	Heptachlo	mg/kg	0.05	<0.05	<0.05	0
	Vic EPA 1	mg/kg	0.1	<0.1	<0.1	0
	Methoxych	mg/kg	0.05	<0.05	<0.05	0
	Other OCP	mg/kg	0.1	<0.1	<0.1	0
	Toxaphene	mg/kg	0.5	<0.5	<0.5	0
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Anthracen	mg/kg	0.5	<0.5	<0.5	0
	Benz(a)an	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)p	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)p	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)p	mg/kg	0.5	0.6	0.6	0
	Benzo(a)p	mg/kg	0.5	1.2	1.2	0
	Benzo(b)&	mg/kg	0.5	<0.5	<0.5	0
	Benzo(g,h	mg/kg	0.5	<0.5	<0.5	0
	Benzo(k)fl	mg/kg	0.5	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	<0.5	0
	Dibenz(a,h	mg/kg	0.5	<0.5	<0.5	0
	Fluoranthe	mg/kg	0.5	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	<0.5	0
	Indeno(1,2	mg/kg	0.5	<0.5	<0.5	0
	Naphthale	mg/kg	0.5	<0.5	<0.5	0
	Phenanthr	mg/kg	0.5	<0.5	<0.5	0
	Pyrene	mg/kg	0.5	<0.5	<0.5	0
	PAH (Sum	mg/kg	0.5	<0.5	<0.5	0
Sample Quality Par	Moisture	%	1	24	22	9

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 100 (1-10 x EQL); 50 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.
Any methods in the row header relate to those used in the primary laboratory

Field Blanks (WATER)
Filter: Lab_Report_Number in('820569')

Lab Report Number	820569
Field ID	HA08/2503
Sampled_Date/Time	8/27/2021
Sample Type	Rinsate

Chem_Group	ChemName	Units	EQL	
Amino Aliphatics	N-Nitrosodi-n-butylamine	mg/l	0.005	<0.005
	N-Nitrosodi-n-propylamine	mg/l	0.005	<0.005
Amino Aromatics	1-Naphthylamine	mg/l	0.005	<0.005
	2-Naphthylamine	mg/l	0.005	<0.005
	Diphenylamine	mg/l	0.005	<0.005
Anilines	2-Nitroaniline	mg/l	0.005	<0.005
	Aniline	mg/l	0.005	<0.005
E-Nitrobenzenes	Nitrobenzene	mg/l	0.05	<0.05
	Pentachloronitrobenzene	mg/l	0.005	<0.005
Explosives	2,4-Dinitrotoluene	mg/l	0.005	<0.005
	2,6-Dinitrotoluene	mg/l	0.005	<0.005
Halogenated Benzenes	1,2,3,4-Tetrachlorobenzene	mg/l	0.005	<0.005
	1,2,3,5-Tetrachlorobenzene	mg/l	0.005	<0.005
	1,2,3-Trichlorobenzene	mg/l	0.005	<0.005
	1,2,4,5-Tetrachlorobenzene	mg/l	0.005	<0.005
	1,2,4-Trichlorobenzene	mg/l	0.005	<0.005
	1,2-Dichlorobenzene	mg/l	0.005	<0.005
	1,3,5-Trichlorobenzene	mg/l	0.005	<0.005
	1,3-Dichlorobenzene	mg/l	0.005	<0.005
	1,4-Dichlorobenzene	mg/l	0.005	<0.005
	Hexachlorobenzene	mg/l	0.005	<0.005
	Pentachlorobenzene	mg/l	0.005	<0.005
Heavy Metals	Arsenic	mg/L	0.001	<0.001
	Cadmium	mg/l	0.0002	<0.0002
	Chromium	mg/l	0.001	<0.001
	Copper	mg/l	0.001	<0.001
	Lead	mg/l	0.001	<0.001
	Mercury	mg/l	0.0001	<0.0001
	Nickel	mg/l	0.001	<0.001
	Zinc	mg/l	0.005	<0.005
Herbicides	Pronamide	mg/l	0.005	<0.005
	Trifluralin	mg/l	0.005	<0.005
Organochlorine Pesticides	p,p-DDE	mg/l	0.005	<0.005
	a-BHC	mg/l	0.005	<0.005
	Aldrin	mg/l	0.005	<0.005
	b-BHC	mg/l	0.005	<0.005
	d-BHC	mg/l	0.005	<0.005
	DDD	mg/l	0.005	<0.005
	DDT	mg/l	0.005	<0.005
	Dieldrin	mg/l	0.005	<0.005
	Endosulfan I	mg/l	0.005	<0.005
	Endosulfan II	mg/l	0.005	<0.005
	Endosulfan sulphate	mg/l	0.005	<0.005
	Endrin	mg/l	0.005	<0.005
	Endrin aldehyde	mg/l	0.005	<0.005
	Endrin ketone	mg/l	0.005	<0.005
	g-BHC	mg/l	0.005	<0.005
	Heptachlor	mg/l	0.005	<0.005
	Heptachlor epoxide	mg/l	0.005	<0.005
	Methoxychlor	mg/l	0.005	<0.005
PAH	Acenaphthene	mg/l	0.001	<0.001
	Acenaphthylene	mg/L	0.001	<0.001
	Anthracene	mg/l	0.001	<0.001
	Benz(a)anthracene	mg/l	0.001	<0.001
	Benzo(a)pyrene	mg/l	0.001	<0.001
	Benzo(b)&(j)fluoranthene	mg/l	0.001	<0.001
	Benzo(g,h,i)perylene	mg/l	0.001	<0.001
	Benzo(k)fluoranthene	mg/l	0.001	<0.001
	Chrysene	mg/l	0.001	<0.001
	Dibenz(a,h)anthracene	mg/l	0.001	<0.001
	Fluoranthene	mg/l	0.001	<0.001
	Fluorene	mg/l	0.001	<0.001
	Indeno(1,2,3-c,d)pyrene	mg/l	0.001	<0.001
	Naphthalene	mg/l	0.001	<0.001
	Phenanthrene	mg/l	0.001	<0.001
	Pyrene	mg/L	0.001	<0.001
PAH-Others	1-Chloronaphthalene	mg/l	0.005	<0.005
	2-Chloronaphthalene	mg/l	0.005	<0.005
	2-Methylnaphthalene	mg/l	0.005	<0.005
	3-Methylcholanthrene	mg/l	0.005	<0.005
	7,12-Dimethylbenz(a)anthracene	mg/l	0.005	<0.005
Phenolics	2,4-Dimethylphenol	mg/l	0.003	<0.003
	2,4-Dinitrophenol	mg/l	0.03	<0.03
	2-Methylphenol	mg/l	0.003	<0.003
	2-Nitrophenol	mg/l	0.01	<0.01
	3- & 4- Methylphenol	mg/l	0.006	<0.006
	4,6-Dinitro-2-methylphenol	mg/l	0.03	<0.03
	4-Nitrophenol	mg/L	0.03	<0.03
	Phenol	mg/l	0.003	<0.003
Phenolics-Halogenated	2,3,4,6-Tetrachlorophenol	mg/l	0.01	<0.01
	2,4,5-Trichlorophenol	mg/l	0.01	<0.01
	2,4,6-Trichlorophenol	mg/L	0.01	<0.01
	2,4-Dichlorophenol	mg/l	0.003	<0.003
	2,6-Dichlorophenol	mg/l	0.003	<0.003
	2-Chlorophenol	mg/l	0.003	<0.003
	4-Chloro-3-methylphenol	mg/L	0.01	<0.01
	Pentachlorophenol	mg/l	0.01	<0.01
Phthalates	Bis(2-ethylhexyl) phthalate	mg/l	0.005	<0.005
	Butylbenzyl phthalate	mg/l	0.005	<0.005
	Diethyl phthalate	mg/l	0.005	<0.005
	Dimethyl phthalate	mg/l	0.005	<0.005
	Di-n-butyl phthalate	mg/l	0.005	**0.008**
	Di-n-octyl phthalate	mg/l	0.005	<0.005
SVOCs	2-Picoline	mg/l	0.005	<0.005
	3,3-Dichlorobenzidine	mg/l	0.005	<0.005
	4-(Dimethylamino) azobenzene	mg/l	0.005	<0.005
	4-Aminobiphenyl	mg/l	0.005	<0.005
	4-Bromophenyl phenyl ether	mg/l	0.005	<0.005
	4-Chlorophenyl phenyl ether	mg/l	0.005	<0.005
	Acetophenone	mg/l	0.005	<0.005
	Bis(2-chloroethoxy) methane	mg/l	0.005	<0.005
	Bis(2-chloroisopropyl) ether	mg/l	0.005	<0.005
	Dibenzofuran	mg/l	0.005	<0.005
	Hexachlorocyclopentadiene	mg/l	0.005	<0.005
	N-Nitrosopiperidine	mg/l	0.005	<0.005
Volatile Organic Compounds	Benzyl chloride	mg/l	0.005	<0.005
	Dibenz(a,j)acridine	mg/l	0.005	<0.005
	Hexachlorobutadiene	mg/l	0.005	<0.005
	Hexachloroethane	mg/l	0.005	<0.005

APPENDIX F

EILs Derivation

Inputs
Select contaminant from list below
Cr_III
Below needed to calculate fresh and aged ACLs
Enter % clay (values from 0 to 100%)
10
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
VIC
Enter traffic volume (high or low)
low

Outputs		
Land use	Cr III soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	140
Urban residential and open public spaces	#NUM!	410
Commercial and industrial	#NUM!	670

Inputs
Select contaminant from list below
Cu
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
10
Enter soil pH (calcium chloride method) (values from 1 to 14)
6.8
Enter organic carbon content (%OC) (values from 0 to 50%)
1
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
VIC
Enter traffic volume (high or low)
low

Outputs		
Land use	Cu soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	75
Urban residential and open public spaces	#NUM!	200
Commercial and industrial	#NUM!	290

Inputs
Select contaminant from list below
Ni
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
10
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
VIC
Enter traffic volume (high or low)
low

Outputs		
Land use	Ni soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	35
Urban residential and open public spaces	#NUM!	170
Commercial and industrial	#NUM!	290

Inputs
Select contaminant from list below
Zn
Below needed to calculate fresh and aged ACLs
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)
10
Enter soil pH (calcium chloride method) (values from 1 to 14)
6.8
Below needed to calculate fresh and aged ABCs
Measured background concentration (mg/kg). Leave blank if no measured value
or for fresh ABCs only
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration
or for aged ABCs only
Enter State (or closest State)
VIC
Enter traffic volume (high or low)
low

Outputs		
Land use	Zn soil-specific EILs (mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	#NUM!	130
Urban residential and open public spaces	#NUM!	440
Commercial and industrial	#NUM!	670

APPENDIX G

Laboratory Certificates

Golder Associates Pty Ltd (Richmond)
570-588 Swan Street
Richmond
VIC 3121

Attention: **Maroun Faddoul**

Report **820569-S**
Project name ROSS WATT RD GISBORNE
Project ID 21473472
Received Date Aug 30, 2021

Client Sample ID			**HA01/2001**	**HA02/2001**	**HA02/2002**	**HA03/2001**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M21-Au55058**	**M21-Au55059**	**M21-Au55060**	**M21-Au55061**
Date Sampled			**Aug 27, 2021**	**Aug 27, 2021**	**Aug 27, 2021**	**Aug 27, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	< 50	57	-	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	57	-	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID			HA01/2001	HA02/2001	HA02/2002	HA03/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55058	M21-Au55059	M21-Au55060	M21-Au55061
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Bromofluorobenzene (surr.)	1	%	66	67	-	78
Toluene-d8 (surr.)	1	%	62	59	-	57
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA01/2001	HA02/2001	HA02/2002	HA03/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55058	M21-Au55059	M21-Au55060	M21-Au55061
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	90	93	92	94
p-Terphenyl-d14 (surr.)	1	%	111	91	94	88
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	79	57	52	87
Tetrachloro-m-xylene (surr.)	1	%	134	126	130	121
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1

Client Sample ID			HA01/2001	HA02/2001	HA02/2002	HA03/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55058	M21-Au55059	M21-Au55060	M21-Au55061
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	79	57	-	87
Tetrachloro-m-xylene (surr.)	1	%	134	126	-	121
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	-	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	-	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	-	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	-	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	-	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	-	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	-	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	-	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	-	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	-	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	-	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	-	< 5
Dinoseb	20	mg/kg	< 20	< 20	-	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenol-d6 (surr.)	1	%	65	91	-	104
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	-	< 20
Chromium (hexavalent)	1	mg/kg	< 1	< 1	-	< 1
Cyanide (total)	5	mg/kg	< 5	< 5	-	< 5
Fluoride (Total)	100	mg/kg	< 100	< 100	-	480
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.0	7.2	-	7.6
% Moisture	1	%	22	19	14	24
Heavy Metals						
Arsenic	2	mg/kg	3.1	< 2	< 2	4.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	71	6.8	8.1	84
Copper	5	mg/kg	< 5	18	24	7.4
Lead	5	mg/kg	14	< 5	< 5	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	-	< 5
Nickel	5	mg/kg	8.9	28	38	13
Selenium	2	mg/kg	< 2	< 2	-	< 2
Silver	2	mg/kg	< 2	< 2	-	< 2
Tin	10	mg/kg	< 10	< 10	-	< 10
Zinc	5	mg/kg	9.8	60	64	11

Client Sample ID			HA01/2001	HA02/2001	HA02/2002	HA03/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55058	M21-Au55059	M21-Au55060	M21-Au55061
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Bolstar	0.2	mg/kg	-	-	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	-	-	< 0.2	-
Coumaphos	2	mg/kg	-	-	< 2	-
Demeton-S	0.2	mg/kg	-	-	< 0.2	-
Demeton-O	0.2	mg/kg	-	-	< 0.2	-
Diazinon	0.2	mg/kg	-	-	< 0.2	-
Dichlorvos	0.2	mg/kg	-	-	< 0.2	-
Dimethoate	0.2	mg/kg	-	-	< 0.2	-
Disulfoton	0.2	mg/kg	-	-	< 0.2	-
EPN	0.2	mg/kg	-	-	< 0.2	-
Ethion	0.2	mg/kg	-	-	< 0.2	-
Ethoprop	0.2	mg/kg	-	-	< 0.2	-
Ethyl parathion	0.2	mg/kg	-	-	< 0.2	-
Fenitrothion	0.2	mg/kg	-	-	< 0.2	-
Fensulfothion	0.2	mg/kg	-	-	< 0.2	-
Fenthion	0.2	mg/kg	-	-	< 0.2	-
Malathion	0.2	mg/kg	-	-	< 0.2	-
Merphos	0.2	mg/kg	-	-	< 0.2	-
Methyl parathion	0.2	mg/kg	-	-	< 0.2	-
Mevinphos	0.2	mg/kg	-	-	< 0.2	-
Monocrotophos	2	mg/kg	-	-	< 2	-
Naled	0.2	mg/kg	-	-	< 0.2	-
Omethoate	2	mg/kg	-	-	< 2	-
Phorate	0.2	mg/kg	-	-	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Pyrazophos	0.2	mg/kg	-	-	< 0.2	-
Ronnel	0.2	mg/kg	-	-	< 0.2	-
Terbufos	0.2	mg/kg	-	-	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	-	-	< 0.2	-
Tokuthion	0.2	mg/kg	-	-	< 0.2	-
Trichloronate	0.2	mg/kg	-	-	< 0.2	-
Triphenylphosphate (surr.)	1	%	-	-	98	-

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	< 20	< 20
TRH C10-C14	20	mg/kg	-	-	< 20	< 20
TRH C15-C28	50	mg/kg	-	-	< 50	< 50
TRH C29-C36	50	mg/kg	-	-	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	< 50	< 50

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	< 20
TRH >C10-C16	50	mg/kg	-	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	< 50
TRH >C16-C34	100	mg/kg	-	-	< 100	< 100
TRH >C34-C40	100	mg/kg	-	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100	< 100
Volatile Organics						
Hexachlorobutadiene	0.5	mg/kg	-	-	< 0.5	< 0.5
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	-	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	-	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	-	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	-	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Dichlorodifluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	-	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	-	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	-	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	-	-	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	-	-	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	-	-	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	-	-	69	52
Toluene-d8 (surr.)	1	%	-	-	66	50
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	60	51	63
p-Terphenyl-d14 (surr.)	1	%	90	109	114	115
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	91	78	86	97
Tetrachloro-m-xylene (surr.)	1	%	128	118	146	147
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	-	-	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	86	97
Tetrachloro-m-xylene (surr.)	1	%	-	-	146	147
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	-	-	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	-	-	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	-	-	< 1	< 1
Pentachlorophenol	1	mg/kg	-	-	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	-	-	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	-	-	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	-	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	-	< 5	< 5
2-Nitrophenol	1.0	mg/kg	-	-	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	< 0.5

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2.4-Dinitrophenol	5	mg/kg	-	-	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	-	-	< 5	< 5
Dinoseb	20	mg/kg	-	-	< 20	< 20
Phenol	0.5	mg/kg	-	-	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	-	-	65	70
Total Non-Halogenated Phenol*	20	mg/kg	-	-	< 20	< 20
Chromium (hexavalent)	1	mg/kg	-	-	< 1	< 1
Cyanide (total)	5	mg/kg	-	-	< 5	< 5
Fluoride (Total)	100	mg/kg	-	-	130	< 100
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	-	6.5	6.7
% Moisture	1	%	22	22	22	30
Heavy Metals						
Arsenic	2	mg/kg	4.4	4.4	10	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	150	100	160	22
Copper	5	mg/kg	12	< 5	< 5	< 5
Lead	5	mg/kg	17	24	31	12
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	-	-	< 5	< 5
Nickel	5	mg/kg	24	14	12	< 5
Selenium	2	mg/kg	-	-	< 2	< 2
Silver	2	mg/kg	-	-	< 2	< 2
Tin	10	mg/kg	-	-	< 10	< 10
Zinc	5	mg/kg	23	12	9.0	11
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	-	-
Bolstar	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	-	-
Coumaphos	2	mg/kg	< 2	< 2	-	-
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	-	-
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	-	-
Diazinon	0.2	mg/kg	< 0.2	< 0.2	-	-
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	-	-
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	-	-
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	-	-
EPN	0.2	mg/kg	< 0.2	< 0.2	-	-
Ethion	0.2	mg/kg	< 0.2	< 0.2	-	-
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	-	-
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	-	-
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	-	-
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	-	-
Fenthion	0.2	mg/kg	< 0.2	< 0.2	-	-
Malathion	0.2	mg/kg	< 0.2	< 0.2	-	-

Client Sample ID			HA03/2801 DUP	HA04/2001	HA05/2001	HA06/2001
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Au55062	M21-Au55063	M21-Au55064	M21-Au55065
Date Sampled			Aug 27, 2021	Aug 27, 2021	Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Merphos	0.2	mg/kg	< 0.2	< 0.2	-	-
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	-	-
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	-	-
Monocrotophos	2	mg/kg	< 2	< 2	-	-
Naled	0.2	mg/kg	< 0.2	< 0.2	-	-
Omethoate	2	mg/kg	< 2	< 2	-	-
Phorate	0.2	mg/kg	< 0.2	< 0.2	-	-
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	-	-
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	-	-
Ronnel	0.2	mg/kg	< 0.2	< 0.2	-	-
Terbufos	0.2	mg/kg	< 0.2	< 0.2	-	-
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	-	-
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	-	-
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	-	-
Triphenylphosphate (surr.)	1	%	88	63	-	-

Client Sample ID			HA07/2001	HA08/2001
Sample Matrix			Soil	Soil
Eurofins Sample No.			M21-Au55066	M21-Au55067
Date Sampled			Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	65	52
p-Terphenyl-d14 (surr.)	1	%	115	108

Client Sample ID			HA07/2001	HA08/2001
Sample Matrix			Soil	Soil
Eurofins Sample No.			M21-Au55066	M21-Au55067
Date Sampled			Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	88	99
Tetrachloro-m-xylene (surr.)	1	%	143	124
% Moisture	1	%	21	16
Heavy Metals				
Arsenic	2	mg/kg	< 2	8.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	18	130
Copper	5	mg/kg	< 5	< 5
Lead	5	mg/kg	11	43
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	13
Zinc	5	mg/kg	8.4	10.0
Organophosphorus Pesticides				
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2

Client Sample ID			HA07/2001	HA08/2001
Sample Matrix			Soil	Soil
Eurofins Sample No.			M21-Au55066	M21-Au55067
Date Sampled			Aug 27, 2021	Aug 27, 2021
Test/Reference	LOR	Unit		
Organophosphorus Pesticides				
Dimethoate	0.2	mg/kg	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	55	61

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Vic EPA 1828.2 Table 3 (Solids)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Melbourne	Aug 31, 2021	7 Days
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Volatile Organics	Melbourne	Aug 31, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Polychlorinated Biphenyls	Melbourne	Aug 31, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)			
Phenols (Halogenated)	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Chromium (hexavalent)	Melbourne	Aug 31, 2021	28 Days
- Method: APHA 3500-Cr Hexavalent Chromium- (Extraction:- USEPA3060)			
Cyanide (total)	Melbourne	Sep 01, 2021	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Fluoride (Total)	Melbourne	Sep 01, 2021	28 Days
- Method: LTM-INO-4150 Determination of Total Fluoride PART B – ISE			
- Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Aug 31, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Metals IWRG 621 : Metals M12	Melbourne	Sep 04, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Melbourne	Aug 30, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Metals M8	Melbourne	Sep 06, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
- Method:			
Organophosphorus Pesticides	Melbourne	Aug 31, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)			

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Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	HA01/2001	Aug 27, 2021		Soil	M21-Au55058						X		X
2	HA02/2001	Aug 27, 2021		Soil	M21-Au55059						X		X
3	HA02/2002	Aug 27, 2021		Soil	M21-Au55060		X	X	X	X	X		
4	HA03/2001	Aug 27, 2021		Soil	M21-Au55061						X		X
5	HA03/2801 DUP	Aug 27, 2021		Soil	M21-Au55062		X	X	X	X	X		
6	HA04/2001	Aug 27, 2021		Soil	M21-Au55063		X	X	X	X	X		
7	HA05/2001	Aug 27, 2021		Soil	M21-Au55064						X		X
8	HA06/2001	Aug 27, 2021		Soil	M21-Au55065						X		X

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Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
9	HA07/2001	Aug 27, 2021		Soil	M21-Au55066		X	X	X	X	X		
10	HA08/2001	Aug 27, 2021		Soil	M21-Au55067		X	X	X	X	X		
11	HA08/2503	Aug 27, 2021		Water	M21-Au55068					X		X	
12	HA01/2002	Aug 27, 2021		Soil	M21-Au55069	X							
13	HA03/2002	Aug 27, 2021		Soil	M21-Au55070	X							
14	HA03/2901 TRIP	Aug 27, 2021		Soil	M21-Au55071	X							
15	HA04/2002	Aug 27, 2021		Soil	M21-Au55072	X							
16	HA05/2002	Aug 27, 2021		Soil	M21-Au55073	X							
17	HA04/2003	Aug 27, 2021		Soil	M21-Au55074	X							
18	HA06/2002	Aug 27, 2021		Soil	M21-Au55075	X							

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Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
19	HA06/2003	Aug 27, 2021		Soil	M21-Au55076	X							
20	HA07/2002	Aug 27, 2021		Soil	M21-Au55077	X							
21	HA08/2002	Aug 27, 2021		Soil	M21-Au55078	X							
22	HA08/2003	Aug 27, 2021		Soil	M21-Au55079	X							
Test Counts						11	5	5	5	6	10	1	5

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Volatile Organics							
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Benzene	mg/kg	< 0.1			0.1	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride (Total)	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	80			70-130	Pass	
TRH C10-C14	%	100			70-130	Pass	
Naphthalene	%	99			70-130	Pass	
TRH C6-C10	%	80			70-130	Pass	
TRH >C10-C16	%	98			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	78			70-130	Pass	
1.1.1-Trichloroethane	%	79			70-130	Pass	
1.2-Dichlorobenzene	%	106			70-130	Pass	
1.2-Dichloroethane	%	101			70-130	Pass	
Benzene	%	84			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	91			70-130	Pass	
Toluene	%	84			70-130	Pass	
Trichloroethene	%	90			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Xylenes - Total*	%	93			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	127			70-130	Pass	
Anthracene	%	90			70-130	Pass	
Benz(a)anthracene	%	71			70-130	Pass	
Benzo(a)pyrene	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	%	91			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	89			70-130	Pass	
Dibenz(a.h)anthracene	%	78			70-130	Pass	
Fluoranthene	%	130			70-130	Pass	
Fluorene	%	73			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	74			70-130	Pass	
Naphthalene	%	98			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	124			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	105			70-130	Pass	
4.4'-DDD	%	114			70-130	Pass	
4.4'-DDE	%	95			70-130	Pass	
4.4'-DDT	%	112			70-130	Pass	
a-HCH	%	108			70-130	Pass	
Aldrin	%	120			70-130	Pass	
b-HCH	%	102			70-130	Pass	
d-HCH	%	103			70-130	Pass	
Dieldrin	%	111			70-130	Pass	
Endosulfan I	%	97			70-130	Pass	
Endosulfan II	%	98			70-130	Pass	
Endosulfan sulphate	%	99			70-130	Pass	
Endrin	%	104			70-130	Pass	
Endrin aldehyde	%	127			70-130	Pass	
Endrin ketone	%	108			70-130	Pass	
g-HCH (Lindane)	%	117			70-130	Pass	
Heptachlor	%	90			70-130	Pass	
Heptachlor epoxide	%	107			70-130	Pass	
Hexachlorobenzene	%	111			70-130	Pass	
Methoxychlor	%	112			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	90			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	102			25-140	Pass	
2.4-Dichlorophenol	%	86			25-140	Pass	
2.4.5-Trichlorophenol	%	79			30-130	Pass	
2.4.6-Trichlorophenol	%	88			30-130	Pass	
2.6-Dichlorophenol	%	82			30-130	Pass	
4-Chloro-3-methylphenol	%	99			30-130	Pass	
Pentachlorophenol	%	60			30-130	Pass	
Tetrachlorophenols - Total	%	71			30-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	43			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	35			30-130	Pass	
2-Nitrophenol	%	101			30-130	Pass	
2.4-Dimethylphenol	%	63			30-130	Pass	
2-Methylphenol (o-Cresol)	%	90			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	75			30-130	Pass	
4-Nitrophenol	%	67			30-130	Pass	
Dinoseb	%	41			30-130	Pass	
Phenol	%	104			25-145	Pass	
LCS - % Recovery							
Cyanide (total)	%	84			70-130	Pass	
Fluoride (Total)	%	123			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	87			80-120	Pass	
Cadmium	%	105			80-120	Pass	
Chromium	%	92			80-120	Pass	
Copper	%	86			80-120	Pass	
Lead	%	90			80-120	Pass	
Mercury	%	102			80-120	Pass	
Molybdenum	%	88			80-120	Pass	
Nickel	%	84			80-120	Pass	
Selenium	%	85			80-120	Pass	
Silver	%	104			80-120	Pass	
Tin	%	84			80-120	Pass	
Zinc	%	86			80-120	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	116			70-130	Pass	
Dimethoate	%	114			70-130	Pass	
Ethion	%	106			70-130	Pass	
Fenitrothion	%	111			70-130	Pass	
Methyl parathion	%	97			70-130	Pass	
Mevinphos	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M21-Au56086	NCP	%	83			70-130	Pass	
Acenaphthylene	M21-Au56086	NCP	%	105			70-130	Pass	
Anthracene	M21-Au56086	NCP	%	109			70-130	Pass	
Benz(a)anthracene	M21-Au56086	NCP	%	83			70-130	Pass	
Benzo(a)pyrene	M21-Au56086	NCP	%	107			70-130	Pass	
Benzo(b&j)fluoranthene	M21-Au56086	NCP	%	76			70-130	Pass	
Benzo(g.h.i)perylene	M21-Au56086	NCP	%	99			70-130	Pass	
Benzo(k)fluoranthene	M21-Au56086	NCP	%	74			70-130	Pass	
Chrysene	M21-Au56086	NCP	%	89			70-130	Pass	
Dibenz(a.h)anthracene	M21-Au56086	NCP	%	79			70-130	Pass	
Fluoranthene	M21-Au56086	NCP	%	115			70-130	Pass	
Fluorene	M21-Au56086	NCP	%	72			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M21-Au56086	NCP	%	108			70-130	Pass	
Naphthalene	M21-Au56086	NCP	%	94			70-130	Pass	
Phenanthrene	M21-Au56086	NCP	%	112			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M21-Au56086	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Au56226	NCP	%	102			70-130	Pass	
4.4'-DDD	M21-Au56226	NCP	%	95			70-130	Pass	
4.4'-DDE	M21-Au56226	NCP	%	98			70-130	Pass	
4.4'-DDT	M21-Au56226	NCP	%	96			70-130	Pass	
a-HCH	M21-Au56226	NCP	%	124			70-130	Pass	
Aldrin	M21-Au56226	NCP	%	84			70-130	Pass	
b-HCH	M21-Au56226	NCP	%	90			70-130	Pass	
d-HCH	M21-Au56226	NCP	%	98			70-130	Pass	
Dieldrin	M21-Au56226	NCP	%	103			70-130	Pass	
Endosulfan I	M21-Au56226	NCP	%	93			70-130	Pass	
Endosulfan II	M21-Au56226	NCP	%	108			70-130	Pass	
Endosulfan sulphate	M21-Au56226	NCP	%	84			70-130	Pass	
Endrin	M21-Au56226	NCP	%	107			70-130	Pass	
Endrin aldehyde	M21-Au56226	NCP	%	97			70-130	Pass	
Endrin ketone	M21-Au56226	NCP	%	116			70-130	Pass	
g-HCH (Lindane)	M21-Au56226	NCP	%	95			70-130	Pass	
Heptachlor	M21-Au56226	NCP	%	106			70-130	Pass	
Heptachlor epoxide	M21-Au56226	NCP	%	122			70-130	Pass	
Hexachlorobenzene	M21-Au56226	NCP	%	113			70-130	Pass	
Methoxychlor	M21-Au56226	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	M21-Au54549	NCP	%	123			70-130	Pass	
Aroclor-1260	M21-Au54549	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M21-Au56086	NCP	%	99			30-130	Pass	
2.4-Dichlorophenol	M21-Au56086	NCP	%	88			30-130	Pass	
2.4.5-Trichlorophenol	M21-Au56086	NCP	%	77			30-130	Pass	
2.4.6-Trichlorophenol	M21-Au56086	NCP	%	68			30-130	Pass	
2.6-Dichlorophenol	M21-Au56086	NCP	%	84			30-130	Pass	
4-Chloro-3-methylphenol	M21-Au56086	NCP	%	87			30-130	Pass	
Pentachlorophenol	M21-Au56086	NCP	%	34			30-130	Pass	
Tetrachlorophenols - Total	M21-Au56086	NCP	%	48			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	M21-Au56086	NCP	%	52			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M21-Au56086	NCP	%	71			30-130	Pass	
2-Nitrophenol	M21-Au56086	NCP	%	91			30-130	Pass	
2.4-Dimethylphenol	M21-Au56086	NCP	%	90			30-130	Pass	
2.4-Dinitrophenol	M21-Au56086	NCP	%	54			30-130	Pass	
2-Methylphenol (o-Cresol)	M21-Au56086	NCP	%	91			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Au56086	NCP	%	93			30-130	Pass	
4-Nitrophenol	M21-Au56086	NCP	%	61			30-130	Pass	
Dinoseb	M21-Au56086	NCP	%	64			30-130	Pass	
Phenol	M21-Au56086	NCP	%	92			30-130	Pass	
Spike - % Recovery									
				Result 1					
Fluoride (Total)	M21-Au52065	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	M21-Au55059	CP	%	82			70-130	Pass	
TRH C10-C14	M21-Au55059	CP	%	98			70-130	Pass	
Naphthalene	M21-Au55059	CP	%	103			70-130	Pass	
TRH C6-C10	M21-Au55059	CP	%	82			70-130	Pass	
TRH >C10-C16	M21-Au55059	CP	%	100			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M21-Au55059	CP	%	73			70-130	Pass	
1.1.1-Trichloroethane	M21-Au55059	CP	%	73			70-130	Pass	
1.2-Dichlorobenzene	M21-Au55059	CP	%	114			70-130	Pass	
1.2-Dichloroethane	M21-Au55059	CP	%	90			70-130	Pass	
Benzene	M21-Au55059	CP	%	92			70-130	Pass	
Ethylbenzene	M21-Au55059	CP	%	79			70-130	Pass	
m&p-Xylenes	M21-Au55059	CP	%	83			70-130	Pass	
o-Xylene	M21-Au55059	CP	%	88			70-130	Pass	
Toluene	M21-Au55059	CP	%	93			70-130	Pass	
Trichloroethene	M21-Au55059	CP	%	94			70-130	Pass	
Xylenes - Total*	M21-Au55059	CP	%	85			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	B21-Au49282	NCP	%	119			70-130	Pass	
Dimethoate	B21-Au49365	NCP	%	106			70-130	Pass	
Ethion	B21-Au49282	NCP	%	117			70-130	Pass	
Fenitrothion	B21-Au49282	NCP	%	106			70-130	Pass	
Methyl parathion	B21-Au49282	NCP	%	90			70-130	Pass	
Mevinphos	B21-Au49365	NCP	%	106			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	M21-Au55061	CP	%	114			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Au55063	CP	%	97			75-125	Pass	
Cadmium	M21-Au55063	CP	%	99			75-125	Pass	
Chromium	M21-Au55063	CP	%	262			75-125	Fail	Q08
Copper	M21-Au55063	CP	%	103			75-125	Pass	
Lead	M21-Au55063	CP	%	114			75-125	Pass	
Mercury	M21-Au55063	CP	%	102			75-125	Pass	
Molybdenum	M21-Au55063	CP	%	107			75-125	Pass	
Nickel	M21-Au55063	CP	%	118			75-125	Pass	
Selenium	M21-Au55063	CP	%	82			75-125	Pass	
Silver	M21-Au55063	CP	%	101			75-125	Pass	
Tin	M21-Au55063	CP	%	98			75-125	Pass	
Zinc	M21-Au55063	CP	%	102			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Au54549	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M21-Au55112	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Au55112	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M21-Au55112	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Au54549	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M21-Au55112	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Au55112	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M21-Au55112	NCP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Hexachlorobutadiene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzene	M21-Au54549	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Bromobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethylbenzene	M21-Au54549	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Iodomethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
m&p-Xylenes	M21-Au54549	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methylene Chloride	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
o-Xylene	M21-Au54549	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toluene	M21-Au54549	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Trichlorofluoromethane	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M21-Au54549	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Xylenes - Total*	M21-Au54549	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	M21-Au52869	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M21-Au55243	NCP	pH Units	8.9	9.0	pass	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Au55061	CP	%	24	22	6.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M21-Au55063	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M21-Au55063	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M21-Au55063	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M21-Au55063	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M21-Au55063	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M21-Au55063	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M21-Au55063	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M21-Au55063	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M21-Au55063	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M21-Au55063	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Au55063	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M21-Au55063	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M21-Au55063	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M21-Au55063	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Au55063	CP	mg/kg	4.4	4.6	4.0	30%	Pass	
Cadmium	M21-Au55063	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Au55063	CP	mg/kg	100	100	1.0	30%	Pass	
Copper	M21-Au55063	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	M21-Au55063	CP	mg/kg	24	24	<1	30%	Pass	
Mercury	M21-Au55063	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M21-Au55063	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M21-Au55063	CP	mg/kg	14	14	3.0	30%	Pass	
Selenium	M21-Au55063	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M21-Au55063	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M21-Au55063	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M21-Au55063	CP	mg/kg	12	12	1.0	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	M21-Au55063	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Diazinon	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	M21-Au55063	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	M21-Au55063	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	M21-Au55063	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	M21-Au55064	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Fluoride (Total)	M21-Au55064	CP	mg/kg	130	170	27	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Au55065	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	M21-Au55065	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Au55065	CP	mg/kg	22	22	1.0	30%	Pass	
Copper	M21-Au55065	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	M21-Au55065	CP	mg/kg	12	13	14	30%	Pass	
Mercury	M21-Au55065	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	M21-Au55065	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	M21-Au55065	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Selenium	M21-Au55065	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M21-Au55065	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Tin	M21-Au55065	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M21-Au55065	CP	mg/kg	11	11	5.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Michael Morrison	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Golder Associates Pty Ltd (Richmond)
570-588 Swan Street
Richmond
VIC 3121

Attention: **Maroun Faddoul**

Report **820569-W**
Project name ROSS WATT RD GISBORNE
Project ID 21473472
Received Date Aug 30, 2021

Client Sample ID			**HA08/2503**
Sample Matrix			**Water**
Eurofins Sample No.			**M21-Au55068**
Date Sampled			**Aug 27, 2021**
Test/Reference	LOR	Unit	
Semivolatile Organics			
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03
1-Chloronaphthalene	0.005	mg/L	< 0.005
1-Naphthylamine	0.005	mg/L	< 0.005
1.2-Dichlorobenzene	0.005	mg/L	< 0.005
1.2.3-Trichlorobenzene	0.005	mg/L	< 0.005
1.2.3.4-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.2.3.5-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005
1.2.4.5-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.3-Dichlorobenzene	0.005	mg/L	< 0.005
1.3.5-Trichlorobenzene	0.005	mg/L	< 0.005
1.4-Dichlorobenzene	0.005	mg/L	< 0.005
2-Chloronaphthalene	0.005	mg/L	< 0.005
2-Chlorophenol	0.003	mg/L	< 0.003
2-Fluorobiphenyl (surr.)	1	%	103
2-Methylnaphthalene	0.005	mg/L	< 0.005
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003
2-Naphthylamine	0.005	mg/L	< 0.005
2-Nitroaniline	0.005	mg/L	< 0.005
2-Nitrophenol	0.01	mg/L	< 0.01
2-Picoline	0.005	mg/L	< 0.005
2.3.4.6-Tetrachlorophenol	0.01	mg/L	< 0.01
2.4-Dichlorophenol	0.003	mg/L	< 0.003
2.4-Dimethylphenol	0.003	mg/L	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03
2.4-Dinitrotoluene	0.005	mg/L	< 0.005
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01
2.4.6-Tribromophenol (surr.)	1	%	100
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003
2.6-Dinitrotoluene	0.005	mg/L	< 0.005
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006
3-Methylcholanthrene	0.005	mg/L	< 0.005
3.3'-Dichlorobenzidine	0.005	mg/L	< 0.005
4-Aminobiphenyl	0.005	mg/L	< 0.005

Client Sample ID			HA08/2503
Sample Matrix			Water
Eurofins Sample No.			M21-Au55068
Date Sampled			Aug 27, 2021
Test/Reference	LOR	Unit	
Semivolatile Organics			
4-Bromophenyl phenyl ether	0.005	mg/L	< 0.005
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01
4-Chlorophenyl phenyl ether	0.005	mg/L	< 0.005
4-Nitrophenol	0.03	mg/L	< 0.03
4.4'-DDD	0.005	mg/L	< 0.005
4.4'-DDE	0.005	mg/L	< 0.005
4.4'-DDT	0.005	mg/L	< 0.005
7.12-Dimethylbenz(a)anthracene	0.005	mg/L	< 0.005
a-HCH	0.005	mg/L	< 0.005
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Acetophenone	0.005	mg/L	< 0.005
Aldrin	0.005	mg/L	< 0.005
Aniline	0.005	mg/L	< 0.005
Anthracene	0.001	mg/L	< 0.001
b-HCH	0.005	mg/L	< 0.005
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Benzyl chloride	0.005	mg/L	< 0.005
Bis(2-chloroethoxy)methane	0.005	mg/L	< 0.005
Bis(2-chloroisopropyl)ether	0.005	mg/L	< 0.005
Bis(2-ethylhexyl)phthalate	0.005	mg/L	< 0.005
Butyl benzyl phthalate	0.005	mg/L	< 0.005
Chrysene	0.001	mg/L	< 0.001
d-HCH	0.005	mg/L	< 0.005
Di-n-butyl phthalate	0.005	mg/L	0.008
Di-n-octyl phthalate	0.005	mg/L	< 0.005
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Dibenz(a.j)acridine	0.005	mg/L	< 0.005
Dibenzofuran	0.005	mg/L	< 0.005
Dieldrin	0.005	mg/L	< 0.005
Diethyl phthalate	0.005	mg/L	< 0.005
Dimethyl phthalate	0.005	mg/L	< 0.005
Dimethylaminoazobenzene	0.005	mg/L	< 0.005
Diphenylamine	0.005	mg/L	< 0.005
Endosulfan I	0.005	mg/L	< 0.005
Endosulfan II	0.005	mg/L	< 0.005
Endosulfan sulphate	0.005	mg/L	< 0.005
Endrin	0.005	mg/L	< 0.005
Endrin aldehyde	0.005	mg/L	< 0.005
Endrin ketone	0.005	mg/L	< 0.005
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
g-HCH (Lindane)	0.005	mg/L	< 0.005
Heptachlor	0.005	mg/L	< 0.005
Heptachlor epoxide	0.005	mg/L	< 0.005

Client Sample ID			HA08/2503
Sample Matrix			**Water**
Eurofins Sample No.			**M21-Au55068**
Date Sampled			**Aug 27, 2021**
Test/Reference	LOR	Unit	
Semivolatile Organics			
Hexachlorobenzene	0.005	mg/L	< 0.005
Hexachlorobutadiene	0.005	mg/L	< 0.005
Hexachlorocyclopentadiene	0.005	mg/L	< 0.005
Hexachloroethane	0.005	mg/L	< 0.005
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Methoxychlor	0.005	mg/L	< 0.005
N-Nitrosodibutylamine	0.005	mg/L	< 0.005
N-Nitrosodipropylamine	0.005	mg/L	< 0.005
N-Nitrosopiperidine	0.005	mg/L	< 0.005
Naphthalene	0.001	mg/L	< 0.001
Nitrobenzene	0.05	mg/L	< 0.05
Nitrobenzene-d5 (surr.)	1	%	97
Pentachlorobenzene	0.005	mg/L	< 0.005
Pentachloronitrobenzene	0.005	mg/L	< 0.005
Pentachlorophenol	0.01	mg/L	< 0.01
Phenanthrene	0.001	mg/L	< 0.001
Phenol	0.003	mg/L	< 0.003
Phenol-d6 (surr.)	1	%	72
Pronamide	0.005	mg/L	< 0.005
Pyrene	0.001	mg/L	< 0.001
Trifluralin	0.005	mg/L	< 0.005
Heavy Metals			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.001	mg/L	< 0.001
Zinc	0.005	mg/L	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Semivolatile Organics	Melbourne	Aug 31, 2021	7 Days
- Method: USEPA SW 846 8270			
Metals M8	Melbourne	Aug 31, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

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IANZ # 1290

Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	HA01/2001	Aug 27, 2021		Soil	M21-Au55058						X		X
2	HA02/2001	Aug 27, 2021		Soil	M21-Au55059						X		X
3	HA02/2002	Aug 27, 2021		Soil	M21-Au55060		X	X	X	X	X		
4	HA03/2001	Aug 27, 2021		Soil	M21-Au55061						X		X
5	HA03/2801 DUP	Aug 27, 2021		Soil	M21-Au55062		X	X	X	X	X		
6	HA04/2001	Aug 27, 2021		Soil	M21-Au55063		X	X	X	X	X		
7	HA05/2001	Aug 27, 2021		Soil	M21-Au55064						X		X
8	HA06/2001	Aug 27, 2021		Soil	M21-Au55065						X		X

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Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
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VIC 3121

Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
9	HA07/2001	Aug 27, 2021		Soil	M21-Au55066		X	X	X	X	X		
10	HA08/2001	Aug 27, 2021		Soil	M21-Au55067		X	X	X	X	X		
11	HA08/2503	Aug 27, 2021		Water	M21-Au55068					X		X	
12	HA01/2002	Aug 27, 2021		Soil	M21-Au55069	X							
13	HA03/2002	Aug 27, 2021		Soil	M21-Au55070	X							
14	HA03/2901 TRIP	Aug 27, 2021		Soil	M21-Au55071	X							
15	HA04/2002	Aug 27, 2021		Soil	M21-Au55072	X							
16	HA05/2002	Aug 27, 2021		Soil	M21-Au55073	X							
17	HA04/2003	Aug 27, 2021		Soil	M21-Au55074	X							
18	HA06/2002	Aug 27, 2021		Soil	M21-Au55075	X							

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Phone : 0800 856 450
IANZ # 1290

Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
19	HA06/2003	Aug 27, 2021		Soil	M21-Au55076	X							
20	HA07/2002	Aug 27, 2021		Soil	M21-Au55077	X							
21	HA08/2002	Aug 27, 2021		Soil	M21-Au55078	X							
22	HA08/2003	Aug 27, 2021		Soil	M21-Au55079	X							
Test Counts						11	5	5	5	6	10	1	5

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
1-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
1-Naphthylamine	mg/L	< 0.005			0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.4-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3.5-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
2-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2-Methylnaphthalene	mg/L	< 0.005			0.005	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Naphthylamine	mg/L	< 0.005			0.005	Pass	
2-Nitroaniline	mg/L	< 0.005			0.005	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2-Picoline	mg/L	< 0.005			0.005	Pass	
2.3.4.6-Tetrachlorophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
2.4-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.6-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
3-Methylcholanthrene	mg/L	< 0.005			0.005	Pass	
3.3'-Dichlorobenzidine	mg/L	< 0.005			0.005	Pass	
4-Aminobiphenyl	mg/L	< 0.005			0.005	Pass	
4-Bromophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
4.4'-DDD	mg/L	< 0.005			0.005	Pass	
4.4'-DDE	mg/L	< 0.005			0.005	Pass	
4.4'-DDT	mg/L	< 0.005			0.005	Pass	
7.12-Dimethylbenz(a)anthracene	mg/L	< 0.005			0.005	Pass	
a-HCH	mg/L	< 0.005			0.005	Pass	
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Acetophenone	mg/L	< 0.005			0.005	Pass	
Aldrin	mg/L	< 0.005			0.005	Pass	
Aniline	mg/L	< 0.005			0.005	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
b-HCH	mg/L	< 0.005			0.005	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzyl chloride	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroethoxy)methane	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroisopropyl)ether	mg/L	< 0.005			0.005	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.005			0.005	Pass	
Butyl benzyl phthalate	mg/L	< 0.005			0.005	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
d-HCH	mg/L	< 0.005			0.005	Pass	
Di-n-butyl phthalate	mg/L	< 0.005			0.005	Pass	
Di-n-octyl phthalate	mg/L	< 0.005			0.005	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.j)acridine	mg/L	< 0.005			0.005	Pass	
Dibenzofuran	mg/L	< 0.005			0.005	Pass	
Dieldrin	mg/L	< 0.005			0.005	Pass	
Diethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethylaminoazobenzene	mg/L	< 0.005			0.005	Pass	
Diphenylamine	mg/L	< 0.005			0.005	Pass	
Endosulfan I	mg/L	< 0.005			0.005	Pass	
Endosulfan II	mg/L	< 0.005			0.005	Pass	
Endosulfan sulphate	mg/L	< 0.005			0.005	Pass	
Endrin	mg/L	< 0.005			0.005	Pass	
Endrin aldehyde	mg/L	< 0.005			0.005	Pass	
Endrin ketone	mg/L	< 0.005			0.005	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
g-HCH (Lindane)	mg/L	< 0.005			0.005	Pass	
Heptachlor	mg/L	< 0.005			0.005	Pass	
Heptachlor epoxide	mg/L	< 0.005			0.005	Pass	
Hexachlorobenzene	mg/L	< 0.005			0.005	Pass	
Hexachlorobutadiene	mg/L	< 0.005			0.005	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.005			0.005	Pass	
Hexachloroethane	mg/L	< 0.005			0.005	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Methoxychlor	mg/L	< 0.005			0.005	Pass	
N-Nitrosodibutylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosodipropylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosopiperidine	mg/L	< 0.005			0.005	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Nitrobenzene	mg/L	< 0.05			0.05	Pass	
Pentachlorobenzene	mg/L	< 0.005			0.005	Pass	
Pentachloronitrobenzene	mg/L	< 0.005			0.005	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Pronamide	mg/L	< 0.005			0.005	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Trifluralin	mg/L	< 0.005			0.005	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	%	105			30-130	Pass	
2-Chlorophenol	%	90			25-140	Pass	
2-Methylphenol (o-Cresol)	%	57			30-130	Pass	
2-Nitrophenol	%	120			30-130	Pass	
2.4-Dichlorophenol	%	51			25-140	Pass	
2.4-Dinitrophenol	%	82			30-130	Pass	
2.4.5-Trichlorophenol	%	79			30-130	Pass	
2.4.6-Trichlorophenol	%	99			30-130	Pass	
2.6-Dichlorophenol	%	56			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	96			30-130	Pass	
4-Chloro-3-methylphenol	%	102			30-130	Pass	
4-Nitrophenol	%	79			30-130	Pass	
Acenaphthene	%	112			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	80			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	82			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	88			70-130	Pass	
Chrysene	%	87			70-130	Pass	
Dibenz(a.h)anthracene	%	80			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	112			70-130	Pass	
Naphthalene	%	105			70-130	Pass	
Pentachlorophenol	%	93			30-130	Pass	
Phenanthrene	%	116			70-130	Pass	
Phenol	%	95			25-145	Pass	
Pyrene	%	114			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	95			80-120	Pass	
Cadmium	%	98			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	98			80-120	Pass	
Lead	%	99			80-120	Pass	
Mercury	%	90			80-120	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	98			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Au52415	NCP	%	88			75-125	Pass	
Cadmium	M21-Au52415	NCP	%	87			75-125	Pass	
Chromium	M21-Au52415	NCP	%	90			75-125	Pass	
Copper	M21-Au52415	NCP	%	91			75-125	Pass	
Lead	M21-Au52415	NCP	%	85			75-125	Pass	
Mercury	M21-Au52415	NCP	%	80			75-125	Pass	
Nickel	M21-Au52415	NCP	%	88			75-125	Pass	
Zinc	M21-Au52415	NCP	%	89			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Au52415	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	M21-Au52415	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M21-Au52415	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	M21-Au52415	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	M21-Au52415	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	M21-Au52415	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M21-Au52415	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	M21-Au52415	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Michael Morrison	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Project Name: ROSS WATT RD GISBORNE
Project ID: 21473472

Order No.:
Report #: 820569
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Aug 30, 2021 1:37 PM
Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	HA01/2001	Aug 27, 2021		Soil	M21-Au55058						X		X
2	HA02/2001	Aug 27, 2021		Soil	M21-Au55059						X		X
3	HA02/2002	Aug 27, 2021		Soil	M21-Au55060		X	X	X	X	X		
4	HA03/2001	Aug 27, 2021		Soil	M21-Au55061						X		X
5	HA03/2801 DUP	Aug 27, 2021		Soil	M21-Au55062		X	X	X	X	X		
6	HA04/2001	Aug 27, 2021		Soil	M21-Au55063		X	X	X	X	X		
7	HA05/2001	Aug 27, 2021		Soil	M21-Au55064						X		X
8	HA06/2001	Aug 27, 2021		Soil	M21-Au55065						X		X

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Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
9	HA07/2001	Aug 27, 2021		Soil	M21-Au55066		X	X	X	X	X		
10	HA08/2001	Aug 27, 2021		Soil	M21-Au55067		X	X	X	X	X		
11	HA08/2503	Aug 27, 2021		Water	M21-Au55068					X		X	
12	HA01/2002	Aug 27, 2021		Soil	M21-Au55069	X							
13	HA03/2002	Aug 27, 2021		Soil	M21-Au55070	X							
14	HA03/2901 TRIP	Aug 27, 2021		Soil	M21-Au55071	X							
15	HA04/2002	Aug 27, 2021		Soil	M21-Au55072	X							
16	HA05/2002	Aug 27, 2021		Soil	M21-Au55073	X							
17	HA04/2003	Aug 27, 2021		Soil	M21-Au55074	X							
18	HA06/2002	Aug 27, 2021		Soil	M21-Au55075	X							

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Due: Sep 6, 2021
Priority: 5 Day
Contact Name: Maroun Faddoul

Eurofins Analytical Services Manager : Michael Morrison

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Metals M8	Moisture Set	Semivolatile Organics	Vic EPA 1828.2 Table 3 (Solids)
Melbourne Laboratory - NATA Site # 1254						X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
Mayfield Laboratory - NATA Site # 25079													
External Laboratory													
19	HA06/2003	Aug 27, 2021		Soil	M21-Au55076	X							
20	HA07/2002	Aug 27, 2021		Soil	M21-Au55077	X							
21	HA08/2002	Aug 27, 2021		Soil	M21-Au55078	X							
22	HA08/2003	Aug 27, 2021		Soil	M21-Au55079	X							
Test Counts						11	5	5	5	6	10	1	5

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Golder Associates Pty Ltd (Richmond)
Contact name:	Maroun Faddoul
Project name:	ROSS WATT RD GISBORNE
Project ID:	21473472
Turnaround time:	5 Day
Date/Time received	Aug 30, 2021 1:37 PM
Eurofins reference	820569

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 7.8 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Michael Morrison on phone : 03 8564 5933 or by email: MichaelMorrison@eurofins.com

Results will be delivered electronically via email to Maroun Faddoul - MFaddoul@golder.com.au.

Note: A copy of these results will also be delivered to the general Golder Associates Pty Ltd (Richmond) email address.

CHAIN OF CUSTODY

No. _____

GOLDER ASSOCIATES PTY LTD
Building 7, Botanicca Corporate Park,
570 – 588 Swan Street, Richmond, Victoria 3121
Tel: (03) 8862 3500
Fax: (03) 8862 3501

Golder Job Number: 21473472

Job Location: Ross Watt Rd, Gisborne

Laboratory Issued To: Eurofins

Order No.: _____

Sampled By (Golder): MF

Golder Job Contact: Maureen Faddoul / Louise Maxwell

Golder Contact Email: MFaddoul@golder.com / Lmaxwell@golder.com

# OBSERV-ATIONS	SAMPLE DATE	SAMPLE NUMBER TAAXXX/MQNN	SAMPLE TYPE	SAMPLE DEPTH (m)	No. CON-TAINERS	EPA 1828.2 Table 3	8 metals	PAHs	OCP/OPP	SVOCs	Hold
	27/8/21	HA01/2001	Soil			X					
		/2002					X	X	X		
		HA02/2001				X					
		/2002					X	X	X		
		HA02/2001				X					
		/2002									
		/2501	Dup				X	X	X		
		/2401	Trip								
		HA04/2001	Soil				X	XX			
		/2002									
		HA05/2001				X					
		/2002									
		/2003									
		HA06/2001				X					
		/2002									
		/2003									
		HA07/2001					X	X	X		
		/2002									
		HA08/2001					X	X	X		ICE
		/2002									7.3
		/2003									10.5
		HA06/2503					X			X	7.5
											Cooler

TURN AROUND TIME REQUIRED

☐ 1 Working Day ☐ 2 Working Days ☐ 3 Working Days ☐ 4 Working Days ☒ 5 Working Days (standard) ☐ Other _____

SAMPLE RECEIPT 1

Relinquished by: M Faddoul Date: 30/8/21 Time: _____

Organisation: Golder Associates

Recieved by: CANA for Eurofins Date: 30/8/21 Time: 1.37pm

Organisation: Eurofins

DELIVERED BY: COURIER/AD ☒ GOLDER ☐

SAMPLE RECEIPT 2

Relinquished by: _____ Date: _____ Time: _____

Organisation: Golder Associates

Received by: _____ Date: _____ Time: _____

Organisation: _____

RECEIVED BY: FAX ☐ HAND ☐

SAMPLE STATUS: ☐ Security Sealed ☒ Chilled ☐ Frozen ☐ Ambient

RECEIVING LABORATORY TO CONFIRM RECEIPT OF ANALYTICAL SCHEDULE

 # Observations to Assist Analysis and OH&S

C - Expected to be Highly Contaminated
N - NAPL Sample
HS - Expected High Salinity
HOC - Expected High Total Organic Carbon
S - Sheen
O - Odourous

Original (white) - Laboratory
Duplicate (yellow) - Project File
Triplicate (pink) - COC Book

Checked By: _____ Date: _____

Sulfonic 820569

APPENDIX H

Important Information

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

This Report constitutes or is part of services ("Services") provided by Golder to its client ("Client") under and subject to a contract between Golder and its Client ("Contract"). The contents of this page are not intended to and do not alter Golder's obligations (including any limits on those obligations) to its Client under the Contract.

This Report is provided for use solely by Golder's Client and persons acting on the Client's behalf, such as its professional advisers. Golder is responsible only to its Client for this Report. Golder has no responsibility to any other person who relies or makes decisions based upon this Report or who makes any other use of this Report. Golder accepts no responsibility for any loss or damage suffered by any person other than its Client as a result of any reliance upon any part of this Report, decisions made based upon this Report or any other use of it.

This Report has been prepared in the context of the circumstances and purposes referred to in, or derived from, the Contract and Golder accepts no responsibility for use of the Report, in whole or in part, in any other context or circumstance or for any other purpose.

The scope of Golder's Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

At any location relevant to the Services conditions may exist which were not detected by Golder, in particular due to the specific scope of the investigation Golder has been engaged to undertake. Conditions can only be verified at the exact location of any tests undertaken. Variations in conditions may occur between tested locations and there may be conditions which have not been revealed by the investigation and which have not therefore been taken into account in this Report.

Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder's affiliated companies or the employees, officers or directors of any of them.

By date, or revision, the Report supersedes any prior report or other document issued by Golder dealing with any matter that is addressed in the Report.

Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification

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