Detailed Site Investigation

Lots A DP 150057, B 150057, 1 DP 516621, 33 DP 1138201

148 Rouse Street, Tenterfield, NSW, 2372

Tenterfield Shire Council

21299_ROUSE_STREET_TENTERFIELD_DSI

Prepared for Jack Thomas, Nutrien Harcourts

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Document control

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Executive Summary

Ecoteam has been engaged by Jack Thomas, Nutrien Harcourts to undertake a Phase 2 Detailed Site Investigation (DSI) for 148 Rouse Street, Tenterfield. The site is approximately 0.57 ha and currently comprises of a car dealership, mechanic, and panel beaters. The subject site is proposed to be redeveloped to include a childcare centre, medical centre, and commercial shops. This assessment will identify contamination at the site which may affect its future land use. The four lots within the 0.57 ha site were assessed as the Area of Environmental Concern (AEC). This assessment will also form part of the validation of the site during its decommissioning. Soil at the site was screened with Photoionization Detector (PID). Two boreholes were dug to depths of 3.3 m. Selected soil samples were analysed for contaminants of potential concern (CoPC). One surface water sample and two groundwater samples were analysed for contaminants of potential concern (CoPC). The primary CoPCs on site were identified as TRH (C_6-C_{40}), Benzene, Toluene, Ethyl Benzene, Xylene, Naphthalene, (BTEXN), metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), PAH and phenols. Three samples were analysed for Organochlorine Pesticides (OCP) and Organophosphate pesticides (OPP). One sample was analysed for Volatile Organic Compounds (VOC). This document provides information on the contamination assessment process and results. The site assessment and soil sampling were conducted on the 29 and 30 September 2021.

Scope of works – The main objective of this project was to identify the potential type, extent and level of contamination from past land use practises at the site. Additional objectives were to determine contaminant dispersal and effects on human health. The adequacy of information was assessed. A conceptual site model was prepared to understand the potential contamination receptors and pathways. A site investigation and soil, surface water and groundwater sampling were conducted. Soil and water samples were analysed for CoPC. Data from the site investigation and sampling were interpreted to determine recommendations for future use and management of the site.

Summary of Sampling Results – The results of the soil analyses from this investigation were compared with the HILs, HSLs and ESLs in the Schedule B(1) Guideline on the Investigation Levels for Soil (NEPC, 2013) and for F3 and F4 hydrocarbons in Friebel and Nadebaum (2011b) using column A ‘residential’ or column D ‘commercial’. Water quality within wells and surface water was compared with Groundwater Investigation Level (GIL) threshold contamination limits. The adopted assessment criteria are based on human health and protection of aquatic ecosystems in Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater (NEPC 2013a). Laboratory results indicated that BTEXN, PAH and phenols was below the limit of reporting (LOR) within all soil samples analysed at the site. No VOCs were detected in the sample taken adjacent to the oil wash down storage and processing area. Under slab/surface samples contained no OCCs or OCPs indicating that pesticides were not used under slabs tested at the site.

Volatile, F1 hydrocarbons (C_{16} – C_{34}) and F2 hydrocarbons (C_{10} – C_{16}) in all soil samples were below the LOR. Sample sites 1-2 (south western carpark), 1-3-0.1 (adjacent to wash down collection sump), 1-6-0.25 (adjacent to wash down drain), 1-6-0.4 (adjacent to wash

down drain), 5-0.12 (adjacent to wash down drain), 1-9 (adjacent to drain/creek), 1-10 (south of panel beaters), 1-11 (below oil storage tank) contained elevated non-volatile hydrocarbons (C_{16} – C_{34}) at a maximum concentration of 940 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 4,500 mg/kg and guideline ESL level of 1,300 mg/kg. Samples sites 1-6-0.25, 1-6-0.4 which are adjacent to the wash down drain contained elevated non-volatile hydrocarbons (C_{34} – C_{40}) at a maximum concentration of 300 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 6,300 mg/kg and guideline ESL level of 5,600 mg/kg.

All metal concentrations in soil across the site were well below the guideline criteria.

Hydrocarbons, phenols and BTEXN were not detectable within groundwater at the site. Groundwater sampled from the drain and GW1 wells were above the GIL values for freshwater and marine ecosystem health for chromium and zinc, but below the drinking water guideline level for these metals. Water extracted from the drain/creek was above the freshwater guidelines for copper, but below the drinking water guideline level. All other metals were below GIL values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future residents at the site.

Conclusions and Recommendations – Laboratory results indicated that non-volatile hydrocarbons are present at the site within the workshop, western car park, south of panel beaters and adjacent to the creek, however these levels were well below the adopted guideline values for residential land use including day care centres.

Chromium and zinc, in groundwater at the site were above the GIL for freshwater ecosystem health but below the drinking water guideline level for these metals. Elevated copper above GIL for freshwater ecosystem health but below the drinking water guideline was found within the drain/creek. All other metals were below GIL and drinking water values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future visitors or staff at the site.

No other contaminants were identified at the site. Further soil sampling is required when infrastructure such wash down collection sump, wash down drains and oil storage tank are removed to validate that the site is suitable for its intended use. Sampling is also required below any slabs removed that were not assessed during this investigation.

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1. Introduction

1.1. Project Outline

Ecoteam has been engaged by Jack Thomas, Nutrien Harcourts to undertake a Phase 2 Detailed Site Investigation (DSI) for 148 Rouse Street, Tenterfield. The site is approximately 0.57 ha and currently comprises of a car dealership, mechanic, and panel beaters. The subject site is proposed to be redeveloped to include a childcare centre, medical centre, and commercial shops. This assessment will identify contamination at the site which may affect its future land use. The four lots within the 0.57 ha site were assessed as the Area of Environmental Concern (AEC). This assessment will also form part of the validation of the site during its decommissioning. Soil at the site was screened with Photoionization Detector (PID). Two boreholes were dug to depths of 3.3 m. Selected soil samples were analysed for contaminants of potential concern (CoPC). One surface water sample and two groundwater samples were analysed for contaminants of potential concern (CoPC). The primary CoPCs on site were identified as TRH (C_6-C_{40}), Benzene, Toluene, Ethyl Benzene, Xylene, (BTEXN), metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg), PAH and phenols. Three samples were analysed for Organochlorine Pesticides (OCP) and Organophosphate pesticides (OPP). One sample was analysed for Volatile Organic Compounds (VOC). This document provides information on the contamination assessment process and results. The site assessment and soil and sampling were conducted on the 29 and 30 September 2021.

1.2. Site Identification

Table 1 presents site details. Refer to **Appendix A** for site overview and detailed site plan of the Investigation Area. Site location is marked in **Figure 1**.

Table 1. Site details of 148 Rouse Street, Tenterfield.

Feature	Description
Address	148 Rouse Street, Tenterfield, NSW, 2372
Plan Number	Lots A DP 150057, B 150057, 1 DP 516621, 33 DP 1138201.
Local Government Area	Tenterfield Shire Council
Geographic Coordinates	S -29.057071°, E 152.017890°
Investigation Area	Approx. 0.57 ha
Current Zoning	R5 Village
Proposed Development	Day-care centre, medical centre commercial shops (**Appendix B**)

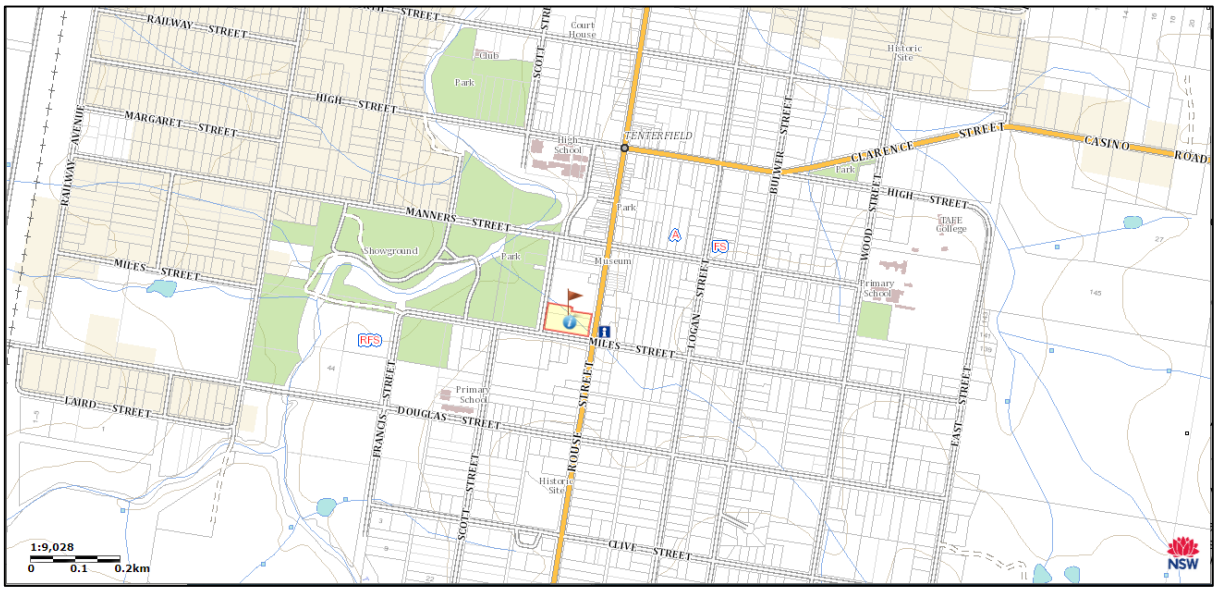


Figure 1. Site location. Site boundaries marked with red flag. Source: Six Maps Online (NSW Spatial Services, NSW Department of finance and Service).

1.3. Scope of Works

The scope of works for this assessment was guided by CLM Act (1997), SEPP 55, OEH (2011), NEPC (2013), AS 4482.1 (2005) and AS 4482.2 (1999). This scope of works included:

1. Undertake a desktop study to review potential past contamination information and identify the Area of Environmental Concern (AEC);
2. Prepare a site plan and site-specific sampling programme to adequately detect the level and extent of contamination on the site;
3. Prepare a Conceptual Site Model (CSM) and assess Data Quality Objectives (DQO);
4. Perform a site assessment of the AEC to extract soil samples, assess site conditions and identify contamination indicators;
5. Collect groundwater samples from two wells and surface water samples from the creek to assess potential ground and surface water contamination;
6. Submit soil and water samples to a NATA-accredited laboratory to measure contaminant concentrations;
7. Achieve quality control objectives;
8. Interpret laboratory results in accordance with NEPC (2013a) guidelines; and
9. Prepare recommendations and final conclusions from interpretation of field soil and water results.

1.4. Objectives

The objectives of this assessment are to:

1. Identify the extent and level of soil contamination in AEC;
2. Identify potential contamination from site infrastructure;
3. Investigate all potential contamination sources and measure concentrations of contaminants within the soil, groundwater and surface water;
4. Determine the risk posed to human health by identified levels of soil contamination; and
5. Assess the adequacy of information available and determine the need for further investigations.

1.5. Legislative Framework

The following legislative acts and guidelines have been referred to during the investigation and interpretation processes:

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land (DPUA & NSW EPA, 1998).
- Section 105 of the *Contaminated Land Management Act 1997* (CLM Act) (NSW Government, 1997a).
- *Protection of the Environment Operations Act 1997* (POEO Act), (NSW Government, 1997b).
- Australian Standard (AS 4482.1- 2005) Guide to the investigation and sampling of sites with potentially contaminated soil (Part 1).
- Australian Standard (AS 4482.2- 1999) Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile substances.
- Contaminated Sites – Sampling Design Guidelines (NSW EPA, 1995).
- Consultants Reporting on Contaminated Land- Contaminated Land Guidelines. (NSW EPA, 2020).
- National Environmental Protection (Assessment of Site Contamination) Measures 1999 - Amended 2013 (NEPC, 2013);
- Regional Policy for the Management of Contaminated Land (NRRC, 2007)
- Waste Classification Guidelines – Part 1: Classifying Waste (EPA, NSW, 2014)
- Contaminated Sites: Guidelines for NSW Site Auditor Scheme (DECC NSW, 2006).
- Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act 1997* (DECC NSW, 2015).
- Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC/NHMRC, 1992).
- Guidelines for the Assessment of On-site Containment of Contaminated Soil (ANZECC, 1999).
- Guidelines for the Assessment and Clean Up of Cattle Tick Dip Sites for Residential Purposes, NSW Agriculture and CMPS&F Environmental (February 1996).

2. Site Conditions

2.1. Topography, Geology and Hydrology

Table 2 contains a description of the regional topography, geology, soil landscape and hydrogeology.

Table 2. Topography, geology, soil landscape and hydrology.

Feature	Description
Topography (DPIE 2021)	Site elevation: ~851-849 m AHD. Site slope to the south-west. The site contains a flat area within the eastern portion of the site which slope down to the western potion.
Geology (NSW Geo Survey, 1969, DPIE 2021)	Tenterfield mass of Dundee Ademellite Porphyrite (Blue-grey medium to course grained).
Soil Landscape (DPIE 2021)	Lucas Heights-Moderately deep (50–150 cm), hard setting Yellow Podzolic Soils and Yellow Soloths Yellow Earths on outer edges.
Hydrology (NSW LPI, 2001 and commonwealth of Australia, 1987	An open drain is present on the western portion of the site. This drain collets stormwater for the site and surrounding areas. This drains forms as a tributary to Tenterfield Creek and runs through the subject site from the south-eastern corner to the north-western corner. The south-eastern corner runs underground. Tenterfield creek is present approximately 160 m to the north-west. Tenterfield dam is located 1.6 km to the south.
Groundwater (NSW Office of Water 2014, Jacobson & Lau 1987)	Granite fracture rock of low to moderate productivity of the New England Tablelands. Groundwater estimated at approximately 3 m depth.
Acid sulfate soil (DPIE 2021)	Not present

2.2. Register Groundwater Bores and Water Use

Search of the Water NSW register database shows 5 water bores are located within 100 m of the subject site. Two of these bores are registered for stock/domestic use, while three are registered as monitoring wells at the Mobil service station (70 m east of the subject site). A further 7 bores are located within 500 m of the site. **Table 3** presents the detail of bores situated within 200 m of the site. The Tenterfield Village is connected to town water supply, therefore limited domestic groundwater water use is expected in the surrounding area. The site is not close to any local water supply areas.

Table 3. Groundwater wells within 200 m of the subject site.

Well ID	Position from Subject Site	Construction date	Use	SWL	Total depth	Estimated ADH
GW900213	70 m SW	1991	Domestic	1 m	21 m	853 m
GW970501	70 m NE	2010	Monitoring Bore	2.1 m	5.0	851 m
GW970502	70 m NE	2010	Monitoring Bore	3.1 m	4.5 m	851 m
GW970500	85 m NE	2010	Monitoring Bore	3.0 m	5.5	854 m
GW308356	170 m NE	2019	Domestic/stock	6 m	27m	856 m

Two groundwater wells were established at the site in 2012. It is alleged these wells were installed by the EPA to identify a source of contamination within the creek. It is understood that the site was no deemed to be the source of contamination.

2.3. Environmentally Sensitive Sites

The immediate surrounding area is not consider enviromentally sensitive. The park directly west of the subject site is marked as public open space for planning purposes and is mainly grassed withs some mature trees. A creek is situated 160 m south-west which contains mature trees and riparian vegetation. The creek is situated in an urban environemnt and is not likley to be considered a highly sensitve environment. This area shall be considered a potential ecological receptor for assessement purposes

3. Site History

3.1. Land Use

The subject site is situated on the corner of Rouse Street and Miles Street. Rouse Street borders the southern side of the site. The Tenterfield Shopping Centre is neighbouring the northern boundary of the site. Rouse Street is a considered a central commercial /shopping area. The surrounding area consists of commercial land use including a shopping centre, service station, information centre and various commercial shops. Residential dwellings and a church are present directly south of the site across from Miles Street. A designated Public Open Space is present along the western boundary which is grassed with some trees The wider area surrounding the property includes residential, commercial, and public recreation land uses. Surrounding land use is presented in **Table 4**.

Table 4. Surrounding land use.

Orientation	Land Use
North	Village- Commercial
South	Village- Commercial
East	Village- Residential
West	Village- Public recreational area (Open space)

3.2. Current Site Conditions

The site is currently a car dealership yard and mechanical workshop. The workshop includes a welder, hoists, and drill presses. The Sexton and Green portion of the site contains a large office building. A panel beaters workshop is present to the north-west of the subject site. The site consists of a brick building with cement floor and tin roof. The site has two car parking areas (north-east and south-west).

An open external drain/creek runs underneath the site which is exposed within the south-western corner of the site. The drain is a tributary to Tenterfield Creek to the east. The drain holds water at times.

An internal drain is present within the workshop area which collected wash down water. This water is then collected in a wastewater pit which is pumped out by a truck on a regular basis. The oil water separator is no longer being used at the site. A mechanical pit is also present at the site. There is potential for leakage of oil and fuel from these sites (**Appendix A**). The property contains concrete, bitumen, grassed and exposed soil surfaces. The south-western carpark area is the only fenced potion of the site. The site contains a flat surface

within the eastern potion which drops down to the west. The site has some cars remaining in parking areas.

Contaminating Infrastructure has been identified on the site map in **Appendix A**.

Infrastructure identified (past and present) within the site:

- Mechanic Pit (4.3m x 1.2 m - 1.8 m deep);
- 4 x Former mechanical pits, capped (2 m x 0.9 m- Unknown depth);
- Internal wash down drains;
- 2 x Wash down collection pit (0.85 m x 0.85 m – 0.15 and 0.3 m deep);
- Wash down collection sump (1.5 m x 1.5 m x 2m depth (estimated);
- Oil separator; and
- Car parking areas.

3.3. Services and Underground Utilities

Mains sewage in present running from the north to south, though the northern carpark to the Sexton and Green workshop area (**Appendix C**). A Dial Before You Dig (DBYD) assessment of the site has identified Telstra cables (including NBN infrastructure) are present along the eastern and southern boundaries of the site within the footpath area. Power poles are also located along the eastern, southern, and western boundaries of the site. Further intrusive investigation at the site will require a competent underground service locator to clear the underground infrastructure before undertaking soil sampling and assessment.

3.4. Site Walkover

A Site walkover was conducted on 29 and 30 September 2021. Site photographs are presented in **Appendix D**. The external concrete and bitumen surfaces were in very good condition.

All buildings are also in good condition. The Sexton and Green workshop area is currently in good condition and has been kept tidy and clean with very limited oil stains present on the concrete surface. The surface has been laid over an older surface which is estimated to have occurred in 1992. The wash down drain is of new condition. Most of the workshop above ground infrastructure (hoist etc) had been removed prior to the site walk over. The offices and showroom were in a clean and tidy condition. An oil storge tank was positioned on the northern side of the workshop and contained within a bunded area.

The panel beater shop was in good condition. The concrete floor was in good condition and did not have any signs of cracks. No pits, drains or underground structures were present

within the panel beaters building. All above ground structure had been removed prior to the site walkover.

An external open drain/creek is present running under the site from the south-eastern corner to the north-western corner. This drain runs underground below the Sexton and Green building site and is approximately 3.7 m wide beneath the building. The open portion of the drain had some vegetation and contained standing water. There is grass present surrounding the drain. The drain runs under the road to the west. A bitumen driveway leads into the panel beaters site. The site contains mostly fill and is built up 1 m to the east and approximately 1-2 m to the southwest.

3.5. Site History

The Rouse Street area in Tenterfield was expanded from 1900-1950. The subject site was established as the Sexton and Green garage and car showroom in 1923. The Sexton and Green dealership is one of oldest car dealerships in Tenterfield. The Sexton and Green dealership occupied Lot A and B, DP 150057 from 1923. The other lots were owned by a butcher until 1973 when it was taken over by the Sexton and Green Car dealership.

The current Sexton and Green building was built in the early 1960s and was constructed of brick, with a cement floor and tin roof. A part of the building was constructed with tin. This building was then upgraded in 1975. The front veneer was upgraded and repainted in 1992.

The western panel beater was built in 1975 after the land was acquired from the butchers. This building was also renovated in 1992. The site has historically been used as a panel beaters workshop. Aerial photographs reviewed from 1967 to present (**Appendix E**), have shown the main Sexton and Green Building was present prior to 1967. The site and its surroundings are designated as a heritage conservation area. Historical searches are presented in **Appendix F**.

3.6. Review of Aerial Photographs

Aerial photographs from 1967 to 2021 were reviewed and summarised to investigate previous land use within the subject site and the surrounding vicinity. **Table 5** contains a summary review of historic aerial photographs for the subject property and surrounding land. (See **Appendix E** for historical images).

Table 5. Summary of historic aerial photographs.

Date Source	Site
28/05/1967 NSW Historical Imagery	The photograph is black and white and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Some car parking is visible to the west. The area directly to the west of the Sexton and Green building is undeveloped. The north-western portion of the site is partially vegetated. The drain/creek is present flowing to the north-west. A mall building is present to the north of the Sexton and Green Buidling. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north.
3/04/1975 NSW Historical Imagery	The photograph is black and white and of poor quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Some car parking is visible to the west. The area directly to the west of the Sexton and Green building is undeveloped. The north-western portion of the site is partially vegetated. The drain is present flowing to the north-west. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north. The site is largely unchanged from the previous Historical Image
1/08/1985 NSW Historical Imagery	The photograph is black and white and of poor quality **The site** The Sexton and Green Building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Car parking is still visible to the west. A shed/building has been erected within the western portion of the site. The north-western portion of the still contains some vegetation. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly north, east and south of the site. Industrial/commercial premises are present further to the north.
1993 Google Earth Image	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Cars are visible parked in this area. Car parking is visible to the west, taking up a small portion of this area. The western carpark is fenced. A shed/building is present within the western portion of the site The north-western portion of the site contains some vegetation and grass surfaces. **Surrounding Land** The site directly to the west is cleared and grassed. Some trees are present. Residential premises are present directly to the north, east and south of the site. Industrial/commercial premises are present further to the north. Some commercial land uses are visible across Rouse Street to the south.
2010 Google Earth Image	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Many cars are visible parked in this area. Car parking is visible to the west, this carpark has expanded further west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site has been cleared. **Surrounding Land** The site directly to the west is cleared and grassed. Some vegetation has been removed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east. The areas north and northeast have expanded to include more commercial land uses. More commercial land use is viable further south.

Date Source	Site
2013 Google Earth	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Many cars are visible parked in this area. Car parking is visible to the west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site is cleared. **Surrounding Land** The site directly to the west is cleared and grassed. Some vegetation has been removed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east and further south.
2021 Google Earth	The photograph is colour and of good quality **The site** The Sexton and Green building is present along the corner of Rouse Street and Miles Street. Directly north of the building is clear and contains a concrete surface. Some cars are visible parked in this area. Car parking is visible to the west. The western carpark is fenced. A shed/building is present within the western portion of the site. The north-western portion of the site is cleared. **Surrounding Land** The site directly to the west is cleared and grassed. A shopping centre is present directly north of the site. Residential premises are present directly to the south. Industrial/commercial premises are present further to the north and north-east and further south. The site is largely unchanged from the previous Historical Image

3.7. Contamination History

An assessment was conducted by the EPA on groundwater at the site in 2012. This assessment was carried out due to potential contamination within the creek. The site was not deemed responsible for the contamination. A Search of NSW Contaminated Lands Records shows only one site is present within the Tenterfield Shire (Former Arsenic Factory Duke and Manor Street, Tenterfield). The site is not listed on the NSW EPA List of notified Sites. The United Tenterfield Service Station (94 Rouse Street) is a listed site, which is currently under investigation.

3.8. Previous Titles

A prior Title search was conducted via the NSW Land & Property information website for the subject property (**Table 6**). The Historical Titles and owners are presented in **Appendix F**. Historical land parish maps show the site as 1 lot in the early 1900s owned by J Witten. The subject property was shown to be subdivided within the 1958 historical maps.

Table 6. Title search details.

	Current title (2021)	Previous titles
Date	1/516621	12915-227
Lot and DP	1/1113227	1/350046, 4/22/758959
	32/1138201	2/851417, 3/587603
	A/150057	12350-237
	B/150057	4599-26

4. Assessment Criteria

The key assessment criteria adopted in the assessment of contamination is the National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Schedule B1 provides contaminant exposure levels which can be used to assess risk of contamination to human and ecological receptors. Health Investigation Levels (HILs), Health Screening levels (HSLs), Ecological Screening Levels (ESLs) and Ecological Investigation Levels (EILs) may be adopted from the measure to determine the likely human and ecological health impacts of soil contamination and any further investigation required. Management limits are also adopted for petroleum hydrocarbons. Water quality within groundwater is compared with Groundwater Investigation Level (GIL) threshold contamination limits.

HILs provide assessment criteria for indicators of risk for direct contact and therefore are important for determining immediate risk. HSLs are applicable to assessing human health risk through inhalation, ingestion or direct contact pathways and are site dependent. EILs and ESLs assess the direct risk to terrestrial ecosystems and are only applicable to the top 2 m of soil. This assessment criteria will be used as a reference to indicate the potential for soil contamination. Management limits identify the need for further investigation but do not imply contamination risk.

GILs are based on marine and freshwater groundwater quality assessment criteria which are adapted from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC/ARMCANZ 2000 (ANZECC 2000). This guideline outlines water quality objectives for the protection of aquatic ecosystems. These values do not imply an environmental problem but are intended as trigger values in which further assessment may be required. GILs for drinking water assessment criteria are adapted from the Australian Drinking Water Guidelines (ADWG, NHMRC 2011). Drinking water criteria are provided as a reference only.

4.1. Contaminants of Potential Concern (CoPC)

Current land-use indicates there may be potential for contamination within the subject site. Contamination is possible from leakage of oil and fuel from the mechanic workshop associated infrastructure. Leakages of fuel and oil from cars housed on the site or metals and chemicals from other site uses (panel beating) may also be present. Importation of contaminated fill may also have occurred at the site. Soil will be tested for contaminants of potential concern (CoPC) from car storage and mechanics which include:

- Total recoverable hydrocarbons (TRH) (C6 to C40)
- Benzene, toluene, ethylbenzene and xylenes (BTEX)
- Naphthalene
- Metals
- VOCs
- PAH

Secondary contaminants that may be associated with other activities carried out on workshop areas sites include:

- Polycyclic aromatic hydrocarbons (PAH) from oil and fuel and workshop activities.
- Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn), phenols from workshop activities.
- BTEX compound from paints and workshop chemicals.
- VOCs from oil and fuels.
- Organochlorine pesticides (OCP) and heavy metals used under slabs.
- Heavy metals and TRH associated with imported fill material.

The service station across the road may also be an off-site source of contamination.

4.2. Adopted Assessment Criteria

The adopted assessment concentrations in soil for the CoPC identified in **Section 4.1** are summarised in **Table 7** for groundwater and **Tables 8 and 9** for soil. These tables were used to assess the risk to human health and the environment due to soil contamination at the site.

Table 7. Adopted assessment criteria of CoPC for groundwater.

Contaminant	Freshwater (mg/L)*	Marine Waters (mg/L)*	Drinking Water (mg/L)**
TRH (C_{10} to C_{36})	***	***	
Benzene	0.95	0.7	0.001
Toluene	0.18	0.18	0.8
Ethylbenzene			0.3
Xylene	0.35 (as o-xylene) 0.20 (as p-xylene)		0.6
Naphthalene	0.016	0.05	
Benzo(a)pyrene	0.0002	0.0002	0.00001
Arsenic	0.024		0.01
Cadmium	0.0002	0.0007	0.002
Chromium	0.001	0.0044	0.05
Copper	0.0014	0.0013	1
Lead	0.0034	0.0044	0.01
Mercury			0.001
Nickel	0.011	0.007	0.02
Zinc	0.008	0.015	3
Phenol			

Notes

- *Space denotes information not available.*
- **Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC /ARMCANZ, 2000), 95% Protection Level for Fresh and Marine Water.*
- ***Australian Drinking Water Guidelines (National Health and Medical Research Council, Agricultural and Resources Management Council of Australia and New Zealand) 2011.*
- ****No criteria are available for TPH C_{10}-C_{36}.*

Table 8. Exposure limit assessment criteria using 'Residential A'

Contaminant	HIL (mg/kg)	HSL-Sand (mg/kg)			HSL-Silt (mg/kg)			HSL-Clay (mg/kg)			ESL (mg/kg
Depth	N/A	0-1 m	1-2 m	2-4 m	0-1 m	1-2 m	2-3 m	0-1 m	1-2 m	2-3 m	0-1m
TRH F1 (C_6 to C_{10})		45	70	110	40	65	100	50	90	150	180
TRH F2 (C_{10} to C_{16})		110	240	440	230			280			120
TRH F3 (C_{16} to C_{34})		4500						4,800			1300
TRH F4 (C_{34} to C_{40})		6300						8,100			5600
Benzene		0.5	0.5	0.5	0.6	0.7	1	0.7	1	2	95
Toluene		160	220	310	390			480			135
Ethylbenzene		55									185
Xylene		40	60	95	95	210		110	310		95
Naphthalene		3			4			5			170
Arsenic	100										100
Cadmium	20										
Chromium	100										330
Copper	6000										140
Lead	300										1100
Mercury	40										
Nickel	400										60
Zinc	7400										390
PAH – BaP TEQ	3										0.7
Total PAH	300										
Phenol	3000										
DDT+DDE+DDD	240										180
Aldrin and dieldrin	6										
Chlordane	50										
Endosulfan	270										
Endrin	10										
Heptachlor	6										
HCB	10										
Methoxychlor	300										
Toxaphene	20										
Chlorpyrifos	160										

Notes

- *Space denote information not available.*
- *HILs, HSLs and ESLs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Tables 1A(1), 1(A)3, 1(B)3, 1(B)4, 1(B)6*
- *HSL for TRH F3 and F4 are presented in Friebel and Nadebaum (2011b) Table B4 and are based on direct contact.*

Table 9. Exposure limit assessment criteria using 'Commercial C'

Contaminant	HIL (mg/kg)	HSL-Sand (mg/kg)			HSL-Silt (mg/kg)			HSL-Clay (mg/kg)			ESL (mg/kg)
Depth	**N/A**	**0-1 m**	**1-2 m**	**2-4 m**	**0-1 m**	**1-2 m**	**2-3 m**	**0-1 m**	**1-2 m**	**2-3 m**	**0-1m**
TRH F1 (C_6 to C_{10})		260	370	630	250	360	590	310	480		215
TRH F2 (C_{10} to C_{16})											170
TRH F3 (C_{16} to C_{34})		27,000			27,000			27,000			2,500
TRH F4 (C_{34} to C_{40})		28,000			28,000			28,000			6,600
Benzene		3	3	3	4	4	6	4	6	9	75
Toluene											135
Ethylbenzene											165
Xylene		230									180
Naphthalene											370
Arsenic	3000										160
Cadmium	900										
Chromium	3600										540
Copper	240 000										200
Lead	1500										1800
Mercury	730										
Nickel	6000										95
Zinc	400 000										540
PAH – BaP TEQ	40										0.7
Total PAH	4000										
Phenol	240 000										
DDT+DDE+DDD	3600										640
Aldrin and dieldrin	45										
Chlordane	530										
Endosulfan	2000										
Endrin	100										
Heptachlor	50										
HCB	80										
Methoxychlor	2500										
Toxaphene	160										
Chlorpyrifos	2000										

Notes

- *Space denote information not available.*
- *HILs, HSLs and ESLs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013). Tables 1A(1), 1(A)3, 1(B)3, 1(B)4, 1(B)6*
- *HSL for TRH F3 and F4 are presented in Friebel and Nadebaum (2011b) Table B4 and are based on direct contact.*

5. Conceptual Site Model

A preliminary Conceptual Site Model (CSM) identified pathways and receptors of CoPC within the Areas of Environmental Concern (AEC). AEC are defined as any area in which past potentially contaminating activities may have been conducted.

Table 10 shows information on AEC and CoPCs which were tested at the site. **Table 11** presents contamination sources, AEC, activity of concern and CoPC characterisation.

Table 10. AEC, activities of concern and CoPC.

I.D	AEC	Activity of concern	CoPC	Comments
Mechanic Workshop	Oil and fuel collection and disposal Workshop and area of washdown	Oil and fuel storage and dispensing Wash down of fuel oil and chemicals in workshop, oil collection and treatment	TRH, BTEXN, metals, PAH, VOCs phenols	Contaminant of oil, diesel and leaded fuel and oils. Volatile substances may also be present in soil near pits and collection areas.
Workshops/ panel beaters	Workshop and panel beaters building	Paint and chemical use. Oils and fuels storage and dispensing.	TRH, BTEXN, metals, PAH, phenols	Paint, metals form chemical use and phenolic compounds may be present surrounding the building.
Concrete areas	All concreted or bitumen surfaces	Chemical treatment and metals for pesticide treatment	TRH, BTEXN, metals, OCP, OPP	Contaminant of metals and pesticides may be present in the top surface of the soil directly under the slab.
Drain	Drainage from commercial areas	Stormwater and shallow groundwater runoff from the site and surrounding commercial areas	TRH, BTEXN, metals, PFAS	PFAS may be present within drainage lines. Stormwater and shallow groundwater may have commination from leaking pits or site activities.

Table 11. Potential contamination sources and transport mechanisms.

AEC	Primary Sources	Secondary Sources	Transport mechanisms
Mechanic Workshop	-Leaking pits and oil storage tank or wash down collection sump (>2m) -Leaking drain (0-0.3m) -Fill material -Surface spills	Impacted surface soil (0-0.3m) Impacted sub-surface soil (0.3m+) NAPL plume migration in groundwater Impacted stormwater	Volatilisation and atmospheric dispersion of dusts and vapours. Soil and contaminant particle movement . Mobile free phase hydrocarbon or chemical migration. Flood/storm migration Groundwater migration.
Workshop/ panel beaters	-Chemical and paint use on-site (0-0.15m) --Fill material -Surface spills	Impacted surface soil (0-0.3m) Impacted sub-surface soil (0.1m+) Chemical migration in groundwater	Volatilisation and atmospheric dispersion of dusts and vapours. Soil and contaminant particle movement. Mobile free phase hydrocarbon or chemical migration. Groundwater migration.
Car parking Area	-Chemical application during laying of the concrete. Oil, fuel, and chemical spills. (0-0.3m)	Impacted surface soil (0-0.3m)	Soil dispersion during removal of the slab.
Drain/creek	-Contaminants from stormwater (0-0.3m), Water contamination	Impacted surface soil (0-0.3m). Impacted surface water	Flood/storm migration. Groundwater migration.

5.1. Receptors and Pathways

The area of investigation is a car dealership, mechanic and panel beaters which will be developed into a day-care centre, medical centre, and commercial shops. Based on the level of soil contact within the AEC, the childcare centre site will be assessed as land use scenario 'A' low-density residential' for contaminant exposure risk assessment. This includes outdoor exposure. The remainder of the site will be assessed as land use scenario D "Commercial". This land use provides contaminant levels which assume mostly sealed surfaces.

5.1.1. Sensitive Receptors

Sensitive receptors have been identified within the vicinity of the site:

- Future construction personnel during excavation work;
- Children within the day-care centre;
- Visitors to the medical centre and shopping area;
- Future workers at the site;
- Residential dwellings surrounding the site;
- Ecological receptors towards the west of the site; and
- Visitors to the recreational area west of the site.

5.1.2. Potential Exposure Pathways

Contamination has been identified as being potentially present in soil within the AEC due to past activities. The main CoPC have been identified as TRH, BTEXN, PAH, and metals. OCP and OPP may be present under slabs. PFAS may be present within the urban creek area. Exposure pathways of these contaminants in soil include direct contact, inhalation of vapours and ingestion of soil particles through dust or eating of soil. **Table 12** provides a risk assessment of potential exposure pathways for receptors at the site.

Table 12. Receptor and pathway risk assessment.

Source	Pathway		Risk
Contamination from mechanics and workshop	**Human health**	Ingestion of soil and inhalation of dust particles.	**High risk**. Soil particles may be ingested as dust particles. Soil particles may be directly ingested, particularly by young children. Risk is high for the childcare centre with direct access to soil. Inhalation exposure associated with particulates are considered of less significance than direct ingestion of soil.
		Ingestion of contaminated water	**Minor risk.** Tenterfield has a reticulated water mains supply. Based on this it is considered unlikely that a groundwater will present a risk.
		Inhalation/Vapour intrusion	**Minor risk**. Naphthalene and volatile hydrocarbons (C6-C16) may be present. Groundwater may be contaminated if the mechanical washdown collection sump have leaked. Vapour intrusion presents a risk for future staff and visitors. Minor risk due to limited storage of volatile chemicals stored onsite.
		Dermal absorption	**Minor risk**. At most risk to future construction personnel during excavation work. Dermal adsorption of most chemicals potentially present are low.
	Ecological	Surface runoff to waterways. Infiltration to groundwater.	**Moderate risk**. A drainage area and creek exist towards the west of the site. A groundwater plume or migration though the drain/creek on-site may be possible due to the water table and close proximity to drainage lines.
		Direct uptake from ecological receptors	**Minor risk.** An open ecological area exists towards the west of the site. The is limited ecological receptors to the west of the site. Contamination is unlikely to spread to this site.

6. Sampling, Analysis and Quality Plan

A sampling, analysis and quality plan (SAQP) has been developed for the site using the Data Quality Objectives (DQO). DQO are defined using a 7-step planning approach which provides type, quality and quantity of data required to assess the environmental condition of the site. This process defines the project requirements (NEPM 2013, Schedule B2, AS 4482.1 2005).

The 7 steps include:

1. **State the problem**
2. **Identify the decision**
3. **Identify inputs to the decision**
4. **Define boundaries of the study**
5. **Develop a decision rule**
6. **Specify acceptable limits on decision errors**
7. **Optimise the design for obtaining data**

6.1. State the problem

The AEC identified within the site needs to be confirmed as not presenting a risk to human health or the environment. Concentrations of contaminants may be present above naturally occurring levels from past land use practices of the mechanic, workshop, or panel beaters. These contaminants pose a threat to the health of demolition staff, future staff, and visitors. Contaminant levels above the HIL and HSL-A (Residential/childcare) within the proposed childcare development area or HIL and HSL-C (Commercial) within the commercial development area require management or remediation. Evidence is required to confirm each site does not pose an unacceptable risk to human health or the environment and that the site is suitable for its intended use.

6.2. Identify the decision

Soil sampling will be undertaken to confirm the presence or absence of contaminants within the AEC. Soil sampling analysis results are required to be below the HIL and HSL A within the proposed childcare development area or HIL and HSL-C within the commercial development area to confirm the site is suitable for its intended use. GILs will also be assessed. Further analysis or risk will be undertaken. If contamination is identified, then the vertical and horizontal extent may need to be assessed to provide management and/or remediation actions.

6.3. Identify inputs into the decision

Inputs into the decision include:

- The historical/background site information listed in **section 2;**
- Guideline documents listed in **section 1.5**;
- Data collected during field assessments and observations of site conditions;

- Outcomes of QA/QC assessment made in **Section 7**;
- Results from the groundwater and surface water sampling measure against assessment criteria in **Table 7**; and
- Results from the soil sampling measure against assessment criteria in **Tables 8 and 9.**

6.4. Define boundaries of the study

The investigation boundaries will be defined as 148 Rouse Street, Tenterfield, NSW, 2372, Lots A DP 150057, B 150057, 1 DP 516621 and 33 DP 1138201.

The AEC in which soil sampling will be conducted has been identified as a 0.57 ha area containing the car dealership, mechanic and panel beaters infrastructure (**Appendix A**).

Surface and under slab sampling will be used to detect contamination hotspots. Borehole sampling is used to identify contamination from below ground infrastructure.

6.5. Develop a decision rule

Data obtained from laboratory analysis and field assessment will be assessed against the adopted exposure risk assessment criteria (**Tables 7, 8 and 9**). Laboratory data will be accepted if it has passed all QA/QC assessment (**Section 7**).

Decision Rules

- If soil contaminant concentrations are below the adopted assessment criteria, then soil contamination exposure risk is considered acceptable.
- Sites with soil contaminant concentrations exceeding exposure limit assessment criteria will be considered to be contaminated.
- Soil management and remediation will be required to reduce exposure risk where soil contamination is unacceptable.

6.6. Specify acceptable limits on decision errors

Decision error may occur when sampling programs do not adequately detect the variability of a contaminant across the site. Measurement errors occur due to deficient collection and analysis of data.

Two types of decision error are:

- Deciding that soil contamination on the site poses an **acceptable** risk for the intended land use when it does not; and
- Deciding that contamination on the site poses an **unacceptable** risk for the intended land use when it does not.

This assessment aimed to conclude with a 95% probability that analysis of field and soil sampling results in AEC do not present an unacceptable risk and that risk is not assumed unless a 90% probability is applied to that decision.

Soil was assessed with the following points which will quantify tolerable limits on decision errors:

- Comparison of the 95% upper confidence limit of the arithmetic mean concentration (95% UCL values) of each contaminant to the nominated site criterion;
- No individual soil sample result shall have a concentration that exceeds 250% of the criterion;
- A normal distribution will only be applied if the coefficient of variance is not greater than 1.2; and
- The standard deviation of a sample population should not exceed 50% of the nominated criteria.

Limitations to sampling include access for sampling and time on-site. Ecoteam cannot drill within 3 m of live infrastructure and 1 m of tanks/infrastructure. Footings were present at the site which made it difficult to adequately sample all locations. Additional limitations include the ability to locate past underground infrastructure adequately. Further assessment will be required during demolition of the site.

Assessment and analytical methods used in the assessment were based on qualified and experience staff using QA and QC procedures. Sampling QA and QC can be found in **Section 7** of this document. Data quality indicators (DQI) are listed in **Tables 13, 14, 15, and 16**.

6.7. Optimise the design for obtaining data

The data optimisation was achieved by the following guidelines:

- NEPM (2013)
- OEH (2011)
- Clements *et.al* (2009)
- AS 4482.1 (2005)
- AS 2282.2 (1999)

Sample methodology and rationale for validation has been documented in **Section 8**. Judgemental and systematic soil sampling will be undertaken within the AEC. Data will be optimised by using QA and QC procedures. Sampling QA and QC can be found in **Section 7** of this document. DQIs are listed in **Tables 13, 14, 15, and 16**. This includes using NATA accredited laboratories.

7. Investigation QA/QC Evaluation

Tables 13, 14, 15, and 16 present summaries of the field and laboratory investigation QA/QC evaluation and include data quality indicators (DQI) required to be achieved to ensure quality of data.

Table 13. Investigation DQIs

Precision	Precision is measured by the reproducibility of the data under different conditions. The laboratory results and sampling techniques will be assessing the Relative Percent Difference (RPD) of duplicate samples (**Table 15**).
Accuracy	Accuracy assesses any bias in the analysis techniques. The laboratory data compared to the QA/QC presented in **Tables 15 and 16**.
Representativeness	Representativeness ensures that sample data represents the characteristics of the environmental condition. Samples will be collected on a representative bases by collecting and adequate number of samples in each location to characterise the site correctly (**Table 14**).
Comparability	Comparability expresses the confidence of each data set. A consistent technique will be used to collect samples and analyse samples (**Tables 14, 15 and 16**).
Completeness	Completeness defines the percentage of measurements taken which are considered valid. The validation sampling design and collection methods will ensure sufficient data is collected (**Table 14**).
Sensitivity	Sensitivity expressed the appropriateness of the laboratory assessment. The LOR will be compared to the adopted criteria (**Tables 7, 8 and 9).**

Table 14. Investigation Field QA/ QC program.

Criteria	Objective/DQI	References	Evaluation/ comments
Historical evaluation/ desktop study	Determine past and present land use activities that present contamination risk.	Past site diagrams, Aerial photographs, historical topographical maps, communication with owner.	Objective achieved.
Soil Sampling Design	Soil sampling protocol for site validation will detect contamination within the AEC. The target contaminants are TRH, BTEXN and lead. Judgmental sampling in AEC.	NSW EPA (1995) NEPC (2013b) Schedule B2 OEH (2011)	Objectives achieved
Site Assessment	Investigate signs of contamination or odours and vapours. Assess potential contaminant pathways. Use qualified and experienced staff Ensure all field equipment has been calibrated	Clements et.al (2009) NEPM (2013b) Schedule B2 OEH (2011)	Contamination indicators assessed Objectives achieved

Table 15. Investigation Field Sampling QA/ QC program

Criteria	Objective/DQI	References	Evaluation/ comments
QA/QC Soil Sampling Procedure	No cross contamination between samples. Decontamination procedure – New disposable gloves used to collect samples, spades and augers decontaminated between each sampling location. Sampling equipment washed with phosphate-free detergent and rinsed with distilled water for each sampling location. Samples individually stored in clean sampling containers provided by Eurofins or Envirolab. Ensure the proper recording of sample date, locations and sampler. Minimise holding times, temporal and operator influences. Samples stored on ice on the day and sent immediately to the laboratory for delivery the following day. Ensure chain-of-custody procedure. Ensure LOR are appropriate. Rinsate samples undertaken each day for each piece of equipment used. Trip/ filed blank present at each sample site/	AS 4482.1 (2005). AS 4482.2 (1999).	Objective achieved during DSI sampling. Trip blank and rinsate below LOR or acceptable levels.
QA/QC Soil Sampling Procedure	Field inter and intra laboratory duplicates – Divide a single field sample into two separate samples and send half to the main laboratory and half to another laboratory. 2 duplicate samples assessed per 20 samples. Assess precision of the data by calculating the Relative Percent Difference (RPD) using the following formula: $RPD\ (\%) = \frac{Co - Cd}{Co + Cd} \times 200$ Where: Co = Analyte concentration of the original sample Cd = Analyte concentration of the duplicate sample Nominal acceptance criteria of 30% to 50% RDP will be used for field intra laboratory duplicates. This may not always be achieved due to, heterogenous soil or fill and or low analyte concentrations. These factors will be taken into consideration when assessing Intra-laboratory duplicates.		Objective achieved for DSI sampling. All duplicate samples were within acceptable criteria

Table 16. Investigation laboratory QA program.

Criteria	Objective/DQO	References	Evaluation/ comments
Testing Accreditation	Maximise data quality by using NATA accredited laboratories.	Eurofins Sydney (NATA accreditation No. NATA # 1261 Site # 18217 Envirolab Sydney (NATA accreditation No. 2901).	Laboratory employs full QA procedures.
Laboratory QA/QC	Laboratory duplicates - 1 sub-sample duplicate in every 20 samples are analysed to provide information ensure analytical precision). Laboratory control sample - A reference sample of known concentration is analysed in the batch to ensure analysis precision. Spiked samples- A field sample is spiked with a known concentration of the analyte of concern to evaluate analytical techniques. Method blanks - An aqueous solution which is free from contamination is added to the reagents and carried through the analysis procedure to ensure no contamination has occurred during the analysis process. Surrogate standard/spikes - Surrogate compounds are spiked into blanks, standards and samples to evaluate the analysis process.		Laboratory QA results will be checked and retained.

Summary

Appropriate QA and QC procedures were carried out during field sampling and laboratory analysis to meet data quality objectives.

8. Sampling Methodology

8.1. Sampling & Analysis Rationale

Soil sampling occurred within areas of past contaminating activities to assess if the site is suitable for its intended land use change. Sample locations and sampling regime were based on the requirements of NSW EPA (2014), OEH (2011), Clements et.al (2009), Schedule B2 of the NEPM (2013), AS4482.1-2005 and AS4482.2-1999. Grid sampling and judgemental soil sampling was conducted within the AEC around potentially contaminating infrastructure. This sampling method ensured that the sites were adequately assessed, and specific spots were targeted which were deemed to have a higher likelihood of contamination. Groundwater wells at two locations were sampled to assess the potential of groundwater contamination at the site. Surface water sampling was conducted within the drain/creek running though the site. Soil sampling was undertaken at 18 locations at the site. Soil samples were taken within 18 m grid intervals. Some samples were relocated to ensure that areas of potential contamination were sampled adequately. Three judgmental samples sites were assessed within the workshop.

Soil samples were extracted from the surface 0 - 0.15 m BGL at 2 locations (BH8 and BH 9) and below gravel at 0.1 – 0.25 m BGL at 5 locations (BH1, BH2, BH12, BH14 and BH16) Soil samples were extracted under bitumen with gravel base at 0.2 – 0.35 m BGL at 4 locations (BH13, BH15, BH17 and BH18). Soil samples were extracted under concrete at 7 locations. Soil was extracted at depths of 0.1 to 0.35 m BGL (BH3), 0.15 to 0.30 m BGL (BH7, BH10 and BH11), under concrete and gravel base at 0.15-0.30 (BH7) or under concrete and gravel base at 0.2 to 0.35 m BGL (BH5 and BH6) One soil sample (BH 4.04) was taken at 0.4 to 0.55 m BGL adjacent the workshop washdown drain. Two boreholes (BH3 and BH7) were extracted to a depth of 3.3 m BGL. A third borehole was attempted at BH 4 however this was abandoned due to extensive footings within the location. One sample was extracted between the footings and concrete. **Table 17** provides details on the sampling regime taken at the site.

Water samples were taken from 2 established well at the site. Surface water was taken from the drain/creek situated at the site.

Table 17. Details on the sampling regime for the samples taken within the AEC.

Feature	Description
Location	AEC (148 Rouse Street, Tenterfield)
Land area (ha)	0.57
Minimum number of sampling points required (NSW EPA, 1995)	0.6 ha = 15
Sampling points employed	18
Minimum hotspot diameter that can be detected with 95% confidence	23.6 m
Maximum sample point interval (grid size) (m)	18 m
Confidence level	>95%

8.2. Soil Sampling Design

Soil samples were taken with a sample trowel or auger with minimal soil disturbance. Depth samples were extracted (0 – 3.3 m BGL) using a push tube with limited disturbance. Care was taken to provide the best possible location for the soil sample sites. One borehole (BH3) was excavated to 3.3 m BGL adjacent to the washdown water collection sump on the western side of the workshop. One borehole (BH7) was excavated to 3.3 m BGL below the former mechanical pits within the workshop which have been concreted over. Soil was extracted on-site for field screening.

Field screening of soil samples was undertaken with a PID every 0.5 m depth using headspace analysis to determine if volatile contaminants were present. No volatile gas was detected during the site assessment. A minimum of 2 soil samples each borehole were sent for laboratory testing and analysed for CoPC. Soil samples were chosen based on field screening results, soil change or discolouration and odour. If no evidence of potential contamination was detected, then samples were collected from the top and bottom of the borehole, if potential contamination was detected then all samples were collected and tested. A detailed site map in **Appendix A** contains borehole locations. 18 soil sample stations were identified. 23 soil samples were analysed further in a laboratory including 1 background sample taken from the park across the road. 4 duplicate samples (inter and intra laboratory) were analysed for QA/QC. One Trip blank and one rinsate were analysed for QA/QC. Refer to **Table 12 and Appendix G** for sample details and **Appendix A** for the sample locations.

Soil sampling was undertaken by Lise Bolton on 29 and 30 September 2021. Underground service locating was conducted by a qualified professional contractor prior to sampling. Weather conditions were overcast with patches of rain. Samples retained for analysis are presented in **Table 12**. **Appendix D** displays photographs of the sample areas. **Appendix H** presents the sampling methodology. **Appendix I** shows borehole drill logs. **Appendix J** presents the chain-of-custody form acknowledging receipt date and time, and the identity of samples. Analytical results and exceedances are contained in **Appendix G**. Laboratory results and Quality Assurance are presented in **Appendix K.** PID calibration report is presented in **Appendix L**.

Table 18. Soil sample details.

Sample I.D (BH)	Sample location	Sample depth (m)	PID (ppm)	Soil type	Analytes sampled
B1	Background- Adjacent Park (surface)	0 - 0.15	0.2	Grey, silty clay loam	TRH, BTEXN, PAH, Phenols, Metals
1	Near oil drums (under gravel)	0.1 - 0.25	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
2	North-western car park (under gravel)	0.1 - 0.25	0.1	Yellow sandy loan, gravel	TRH, BTEXN, PAH, Phenols, Metals
3-0.1	North of wash down collection sump (under concrete)	0.1 - 0.25	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
3-1.1	North of wash down collection sump (depth sample)	1.1 1.25	0.4	Yellow, sandy clay loam	TRH, BTEXN, PAH, Phenols, Metals, VOC, SVOC
3-3.1	North of wash down collection sump (depth sample)	3.1 – 3.25	0.4	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals
4-0.2	Northeast of mechanical pit (under concrete)	0.2 – 0.35	0.5	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
5	North of workshop collection drain (under concrete)	0.25 - 0.40	0.2	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
6-0.25	South of workshop collection drain (under concrete)	0.25 – 0.40	0.1	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
6-0.4	South of workshop collection drain (depth sample)	0.4 – 0.65	0.1	Red sandy loam, gravel	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
7-0.15	Adjacent to former mechanical pits (under concrete)	0.15 - 0.30	0.3	Brown sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
7-3.15	Adjacent to former mechanical pits (depth sample)	3.15 – 3.30	0.4	Yellow silty clay loan	TRH, BTEXN, PAH, Phenols, Metals
8	Northwest of drain/creek (surface)	0 - 0.15	0.1	Grey/brown silty clay loam, gravel	TRH, BTEXN, PAH, Phenols, Metals
9	Northeast of drain/creek (surface)	0 - 0.15	0.1	Grey/brown silty clay loam, large rocks	TRH, BTEXN, PAH, Phenols, Metals
10	South of panel beaters (under concrete)	0.15 - 0.30	0.1	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals, OCP, OPP
11	Within oil tank bund (under concrete)	0.15 - 0.30	0.2	Grey heavy clay	TRH, BTEXN, PAH, Phenols, Metals
12	North of workshop (under gravel)	0.1 - 0.25	0.2	Yellow clay loam	TRH, BTEXN, PAH, Phenols, Metals
13	East of show room (under bitumen)	0.2 - 0.35	0.3	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
14	North of drain/creek (under gravel)	0.1 - 0.25	0.3	Yellow sandy clay, gravel	TRH, BTEXN, PAH, Phenols, Metals
15	West of panel beaters (under bitumen)	0.2 - 0.35	0.1	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
16	East of panel beaters (under gravel)	0.2 - 0.35	0.1	Yellow sandy clay loam	TRH, BTEXN, PAH, Phenols, Metals
17	North of showroom (under bitumen)	0.2 - 0.35	0.2	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals
18	North of showroom (under bitumen)	0.2 - 0.35	0.1	Yellow sandy clay, rocks	TRH, BTEXN, PAH, Phenols, Metals

8.3. Groundwater and Surface Water Assessment

Groundwater was assessed at the site to determine whether migration of contamination may have occurred from past practices and if contamination is present at levels which could cause harm to human health or the environment. Two Groundwater wells (GW1 and GW2) were present at the site. GW1 was positioned towards the northeast adjacent to the showroom. GW2 was situated to the northwest, west of the panel beaters.

Height measurements were taken from the top of the well covers. Volatile gas was checked within each well using a PID. Wells were purged before sampling. During purging of wells,

physico-chemical parameters, including pH, electrical conductivity, temperature, dissolved oxygen and redox potential, were measured and recorded (**Appendix M**).

Groundwater sampling was undertaken by Lise Bolton on 29 and 30 September 2021. 1 water quality sample was taken from each well. 2 duplicate samples (inter and intra laboratory) were collected for QA/QC. 1 sample was collected from the drain/creek. All samples were sent for laboratory testing and analysed for CoPC. Clear disposable bailers were used to identify if LNAPL was present. Refer to **Table 19** for sample and well details and **Appendix A** for well and surface sampling locations. Analytical results and exceedances are contained in **Appendix G**. Laboratory results and Quality Assurance are presented in **Appendix K.**

Table 19. Monitoring well and surface sample information

ID	Location	Depth	Standing water Level	Screening level	Analysis
GW1	Northeast adjacent to the showroom	2.58 m	1.10 m	0.5 m – 2.5 m	TRH, BTEXN, Metals and phenols
GW2	Northwest west of the panel beaters.	5.5 m	1.70 m	2.5 m – 5.5 m	TRH, BTEXN, Metals and phenols
Drain	Running though the site east the west- Western open section sampled	Varies	0.1 m	N/A	TRH, BTEXN, Metals and phenols

9. Results & Interpretation

The results of the soil analyses from this investigation were compared with the HILs, HSLs and ESLs in the Schedule B(1) Guideline on the Investigation Levels for Soil (NEPC, 2013) and for F3 and F4 hydrocarbons in Friebel and Nadebaum (2011b) using column A 'residential' or column D 'commercial'. Water quality within wells and surface water was compared with Groundwater Investigation Level (GIL) threshold contamination limits. The adopted assessment criteria are based on human health and the protection of aquatic ecosystems in Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater (NEPC 2013a). Analytical results and exceedances are contained in **Appendix G.** Laboratory results and Laboratory Quality Assurance are presented in **Appendix K**.

Laboratory results indicated that BTEXN, PAH and phenols was below the limit of reporting (LOR) within all soil samples analysed at the site. No VOCs were detected in the sample taken adjacent to the oil wash down storage and processing area. Under slab/surface samples contained no OCCs or OCPs indicating that pesticides were not used under slabs tested at the site.

Volatile, F1 hydrocarbons (C_{16} – C_{34}) and F2 hydrocarbons (C_{10} – C_{16}) in all soil samples were below the LOR. Sample sites 1-2 (south western carpark), 1-3-0.1 (adjacent to wash down collection sump), 1-6-0.25 (adjacent to wash down drain), 1-6-0.4 (adjacent to wash down drain), 5-0.12 (adjacent to wash down drain), 1-9 (adjacent to drain/creek), 1-10 (south of panel beaters), 1-11 (below oil storage tank) contained elevated non-volatile hydrocarbons (C_{16} – C_{34}) at a maximum concentration of 940 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 4,500 mg/kg and guidelines ESL level of 1,300 mg/kg. Samples sites 1-6-0.25, 1-6-0.4 which are adjacent to the wash down drain contained elevated non-volatile hydrocarbons (C_{34} – C_{40}) at a maximum concentration of 300 mg/kg (sample site 1-6-0.4) which is below the adopted residential guideline HSL level of 6,300 mg/kg and guidelines ESL level of 5,600 mg/kg.

All metal concentrations in soil across the site were well below the guideline criteria.

Hydrocarbons, phenols and BTEXN were not detectable within groundwater at the site. Groundwater sampled from the drain/creek and GW1 wells were above the GIL values for freshwater and marine ecosystem health for chromium and zinc, but below the drinking water guideline level for these metals. Water extracted from the drain/creek was above the freshwater guidelines for copper, but below the drinking water guideline level. All other metals were below GIL values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future residents at the site.

10. Conclusion & Recommendations

Laboratory results indicated that non-volatile hydrocarbons are present at the site within the workshop, western car park, south of the panel beaters and adjacent to the drain/creek, however these levels were well below the adopted guideline values for residential land use including day care centres.

Chromium and zinc, in groundwater at the site were above the GIL for freshwater ecosystem health, but below the drinking water guideline level for these metals. Elevated copper above GIL for freshwater ecosystem health, but below the drinking water guideline was found within the drain/creek. All other metals were below GIL and drinking water values. These metals are unlikely to cause concern to the surrounding environment and will not cause harm to future visitors or staff at the site.

No other contaminants were identified at the site. Further soil sampling is required when infrastructure such wash down collection sump, wash down drains and oil storage tank are removed to validate that the site is suitable for its intended use. Sampling is also required below any slabs which are removed that were not assessed during this investigation.

11. References & Guidelines

Australian Standard AS4482.1, (2005). Guide to the investigation and sampling of sites with potentially contaminated soil (Part 1: Non-volatile and semi-volatile compounds).

Australian Standard AS4482.2, (1999). Guide to the investigation and sampling of sites with potentially contaminated soil (Part 2: Volatile substances).

Australian Standard AS5667.11, (1998). Water quality—sampling. Part 11: Guidance on sampling of groundwater's.

Clements, L., Palaia, T., and Davis, J (2009). Characterisation of sites impacted by petroleum hydrocarbons- National guideline document. CRC CARE Technical report no. 11.

CRC Care (2017). Risk-based management and remediation guidance for benzo(a)pyrene. Technical report no. 39.

Department of Planning, Industry and Environment (DPIE), (2021). eSPADE. NSW Soil and Land Information System (SALIS). https://www.environment.nsw.gov.au/eSpade2Webapp Accessed 22/03/2021

Friebel, E. and Nadebaum, P. (2011a). Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 1: Technical development document. CRC CARE Technical report no. 10.

Friebel, E. and Nadebaum, P. (2011b) Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document. CRC CARE Technical report no. 10.

Friebel, E. and Nadebaum, P. (2011c). Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 3: Sensitivity assessment. CRC CARE Technical report no. 10.

Jacobson, G. & Lau, J.E (1987). Hydrology of Australia (1:5000000 scle map). Bureau of Minerals and Resources, Canberra.

National Environmental Protection Council (NPEC) Measure, (2013a). Schedule B (1) – Guidelines on the Investigation Levels for Soil and Groundwater

National Environmental Protection Council (NPEC) Measure, (2013b). Schedule B (2) – Guidelines on Data Collection, Sample Design and Reporting.

National Environmental Protection Council (NPEC) Measure, (2013a). Schedule B (7a) – Guidelines on Health-Based Investigation Levels.

New South Wales Office of Environmental Protection Authority (NSW EPA) (2020) Consultants Reporting on Contaminated Land- Contaminated Land Guidelines.

New South Wales Environmental Protection Authority (NSW EPA), (1995). Contaminated sites- Sample design guidelines.

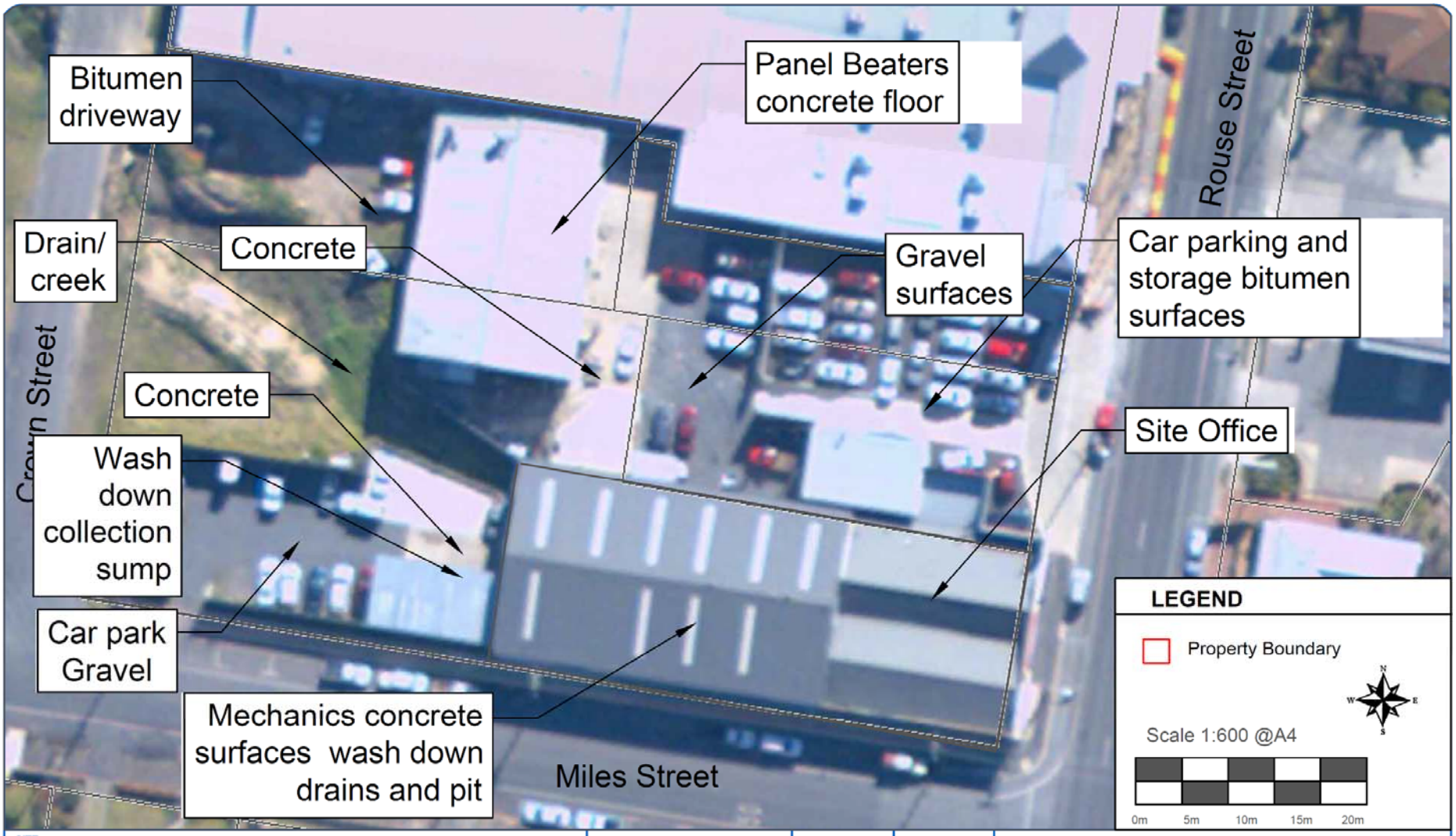
New South Wales Environmental Protection Authority (NSW EPA), (2014). Technical note: Investigation of Service Station Sites.

Office of Environment and Heritage (OEH) (2006) Contaminated Sites – Guidelines for the NSW Site Auditor Scheme (2nd edition).

Tenterfield Shire Local Heritage Register 1 of 2. Final assessment list, November 17, 2004

Appendix A

Site map



SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: Site Map-Current condition	1:600 (SCALE AT A4.)	LB (DRAWN.)	KB (CHECKED.)	A (REVISION.)

ecoteam natural solutions for environmental challenges
13 Ewing Street, Lismore, NSW (02) 66215 123
www.ecoteam.com.au

SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: DSI Sample Plan	1:600 (SCALE AT A4.)	LB (DRAWN.)	NC (CHECKED.)	A (REVISION.)

ecoteam natural solutions for environmental challenges
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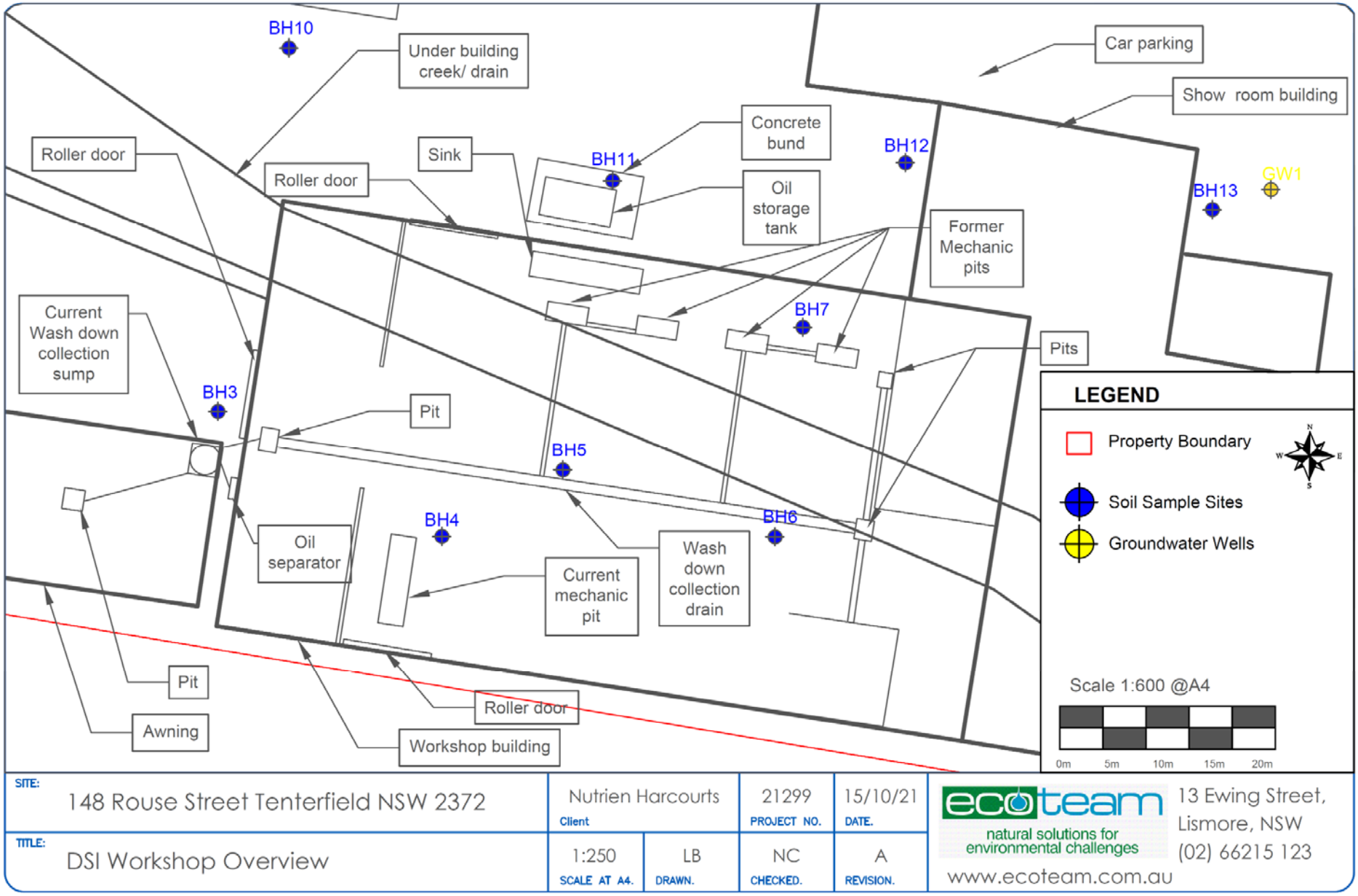
(02) 66215 123
www.ecoteam.com.au



SITE: 148 Rouse Street Tenterfield NSW 2372	Nutrien Harcourts (Client)		21299 (PROJECT NO.)	15/10/21 (DATE.)
TITLE: DSI Workshop Overview	1:250 (SCALE AT A4.)	LB (DRAWN.)	NC (CHECKED.)	A (REVISION.)

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13 Ewing Street, Lismore, NSW
(02) 66215 123
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Appendix B

Development Plans

FLOOR PLAN
SCALE 1 : 300

PROJECT	PROJECT ADDRESS	CLIENT	TITLE	SCALE	DRAWN	DATE	DRAWING No.	REV.
CINEMAS/ CHILDCARE/ MEDICAL CENTRE CONCEPT	148 ROUSE ST, TENTERFIELD	CHRIS HSU	FLOOR PLAN	1 : 300 @A3	TP	21/05/21	SK 01	

MGA

Appendix C

Sewage


32
1138201
1
516621
33
1138201
A
150057
B
150057
CROWN STREET
ROUSE STREET
MILES STREET

Appendix D

Site Photographs

	**Plate A- 30/09/2021** Wester Workshop (Panel beaters). View Northern western corner of the site looking east. GW2 situated right.
	**Plate B- 30/09/2021** Drain/creek (left) and raise carpark area (right). View southwestern corner. Looking southeast.
	**Plate C- 30/09/2021** Drain/creek running under Sexton and Green building. under building. Looking east.

	**Plate D- 29/09/2021** Sexton and Green workshop. North-eastern former mechanical pits. Looking East.
	**Plate E- 29/09/2021** Sexton and Green workshop. Current mechanical pit. Looking southwest.
	**Plate F- 29/09/2021** Sexton and Green workshop. Eastern internal drain and pit. Looking east.

	**Plate G- 29/09/2021** Panel beater workshop. Lookings south.
	**Plate H- 29/09/2021** Panel beater workshop. Looking north.
	**Plate I- 29/09/2021** Behind Sexton and Green building. Oil storage tank and bund. Looking south.

	**Plate J- 29/09/2021** Behind Sexton and Green building. View northern boundary. Looking north.
	**Plate K- 29/09/2021** Behind Sexton and Green building. Adjacent to panel beaters building. Looking southwest.
	**Plate L- 30/09/2021** Western side of Sexton and Green building. Oil separator Looking east.

	**Plate M- 30/09/2021** Western side of Sexton and Green building. Wash down storage sump. Looking east.
	**Plate N- 29/09/2021** Behind Sexton and Green building. View south-western corner. Looking northwest.
	**Plate O- 29/09/2021** Front carpark/show area of Sexton Green building. View north-eastern corner. Looking north. GW1 right bottom corner.

Appendix E

Historical Photographs

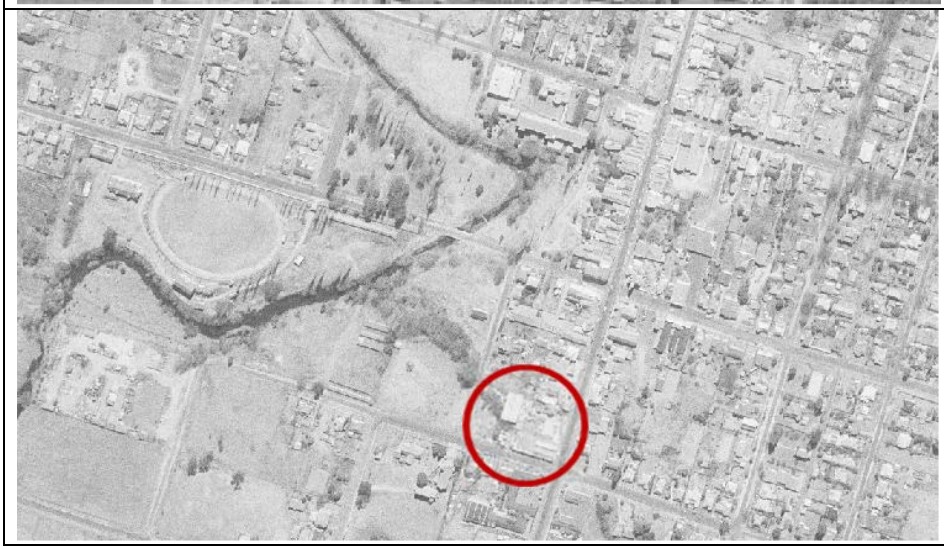
	**Plate P** (1967) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle
	**Plate Q** (1975) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate R** (1985) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.

	**Plate S** (1993) Aerial View: Spatial viewer, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate T** (2010) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.
	**Plate U** (2013) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.

Plate V (2021) Aerial View: Google Earth, 148 Rouse Street, Tenterfield. AEC red circle.

Appendix F

Historical Searches

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Report

Address: - Miles Street, Tenterfield

Description: - Lots A & B D.P. 150057, Lot 1 D.P. 516621 & Lot 33 D.P. 1183201

As regards Lot A D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
28.12.1923 (1923 to 1926)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3542 Fol 34
11.08.1926 (1926 to 1945)	Lionel Clive Crisp (Engineer)	Vol 3542 Fol 34
22.11.1945 (1945 to 1949)	Joseph William Taylor (Grazier) Sidney Taylor (Grazier)	Vol 3542 Fol 34
29.08.1949 (1949 to 1961)	Leslie John Laylor (Grazier)	Vol 3542 Fol 34
14.01.1961 (1961 to 1972)	Francis Roy McMahon (Baker)	Vol 3542 Fol 34
30.11.1972 (1972 to 1973)	Kevin John Moore (Telephone Exchange Operator) Joan Patricia Moore (Married Woman)	Vol 3542 Fol 34
17.12.1973 (1973 to 1980)	Sarah Elizabeth Wright (Widow)	Vol 3542 Fol 34 Now Vol 12350 Fol 237
10.06.1980 (1980 to 1980)	Edward Richard McKenna (Technical Officer) Terence Frederick Kniepp (Solicitor) (Transmission Application not investigated)	Vol 12350 Fol 237
22.09.1980 (1980 to date)	# Sexton & Green (Sales & Service) Pty Ltd	Vol 12350 Fol 237 Now A/150057

# Denotes current registered proprietor

Easements: -

- 25.06.1960 (L 35328 & D.P. 226292) Easement to Drain Water 0.71 metres wide.

Leases: -

- 27.09.1935 to Archibald Colin Bailey (Master Butcher) – expired 13.11.1939.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot B D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.12.1923 (1923 to 1933)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67
30.09.1933 (1933 to 1965)	Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67 Now Vol 4599 Fol 26
16.07.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Vol 4599 Fol 26
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 4599 Fol 26 Now B/150057

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.

Leases: - NIL

As regards Lot 1 D.P. 516621

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1965)	William Robert Crisp (Butcher)	Book 1239 No. 661
29.10.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Book 2772 No. 567
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Book 3106 No. 807 Then Vol 12915 Fol 227 Now 1/516621

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.
- 12.05.2009 (D.P. 1138201) Easement for Loading 5 metres wid.
- 12.05.2009 (D.P. 1138201) Right of Carriageway 2.24 metres wide and variable.
- 12.05.2009 (D.P. 1138201) for Drainage 2.24 metres wide and variable.

Leases: -

- (Book 1713 No. 525) to Archibald Colin Bailey (Master Butcher) – term of 10 years.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot B D.P. 150057

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
18.12.1923 (1923 to 1933)	Charles Sexton (Motor Garage Proprietor) Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67
30.09.1933 (1933 to 1965)	Frederick James Green (Motor Garage Proprietor)	Vol 3545 Fol's 66 & 67 Now Vol 4599 Fol 26
16.07.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Vol 4599 Fol 26
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 4599 Fol 26 Now B/150057

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.

Leases: - NIL

As regards Lot 1 D.P. 516621

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1965)	William Robert Crisp (Butcher)	Book 1239 No. 661
29.10.1965 (1965 to 1973)	Jessie Beryl Cook (Company Director)	Book 2772 No. 567
02.04.1973 (1973 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Book 3106 No. 807 Then Vol 12915 Fol 227 Now 1/516621

# Denotes current registered proprietor

Easements: -

- 05.12.1967 (K 864144 & D.P. 226292) Easement to Drain Water 2 feet 8¾ inches wide and variable.
- 12.05.2009 (D.P. 1138201) Easement for Loading 5 metres wid.
- 12.05.2009 (D.P. 1138201) Right of Carriageway 2.24 metres wide and variable.
- 12.05.2009 (D.P. 1138201) for Drainage 2.24 metres wide and variable.

Leases: -

- (Book 1713 No. 525) to Archibald Colin Bailey (Master Butcher) – term of 10 years.

Email: mark.groll@infotrack.com.au 2

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards the part numbered (3) on the attached Cadastral Records Enquiry Report.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.10.1921 (1921 to 1972)	William Robert Crisp (Butcher)	Book 1239 No. 661
20.07.1972 (1973 to 1977)	Luke Geyer (Shop Keeper) Nance Geyer (Married Woman)	Book 3063 No. 81 (Book 3195 No. 628) Now Vol 13390 Fol 229
03.11.1977 (1977 to date)	# Sexton & Green (Sales & Service) Pty Ltd (Or Sexton and Green (Sales & Service) Pty Ltd)	Vol 13390 Fol 229 Then 33/1183201

# Denotes current registered proprietor

Easements: -

- 19.07.1973 (Book 3105 No. 37 & D.P. 563114) Right of Carriageway – released 15.03.1977

Leases: - NIL

Yours Sincerely,
Mark Groll
22 October 2021

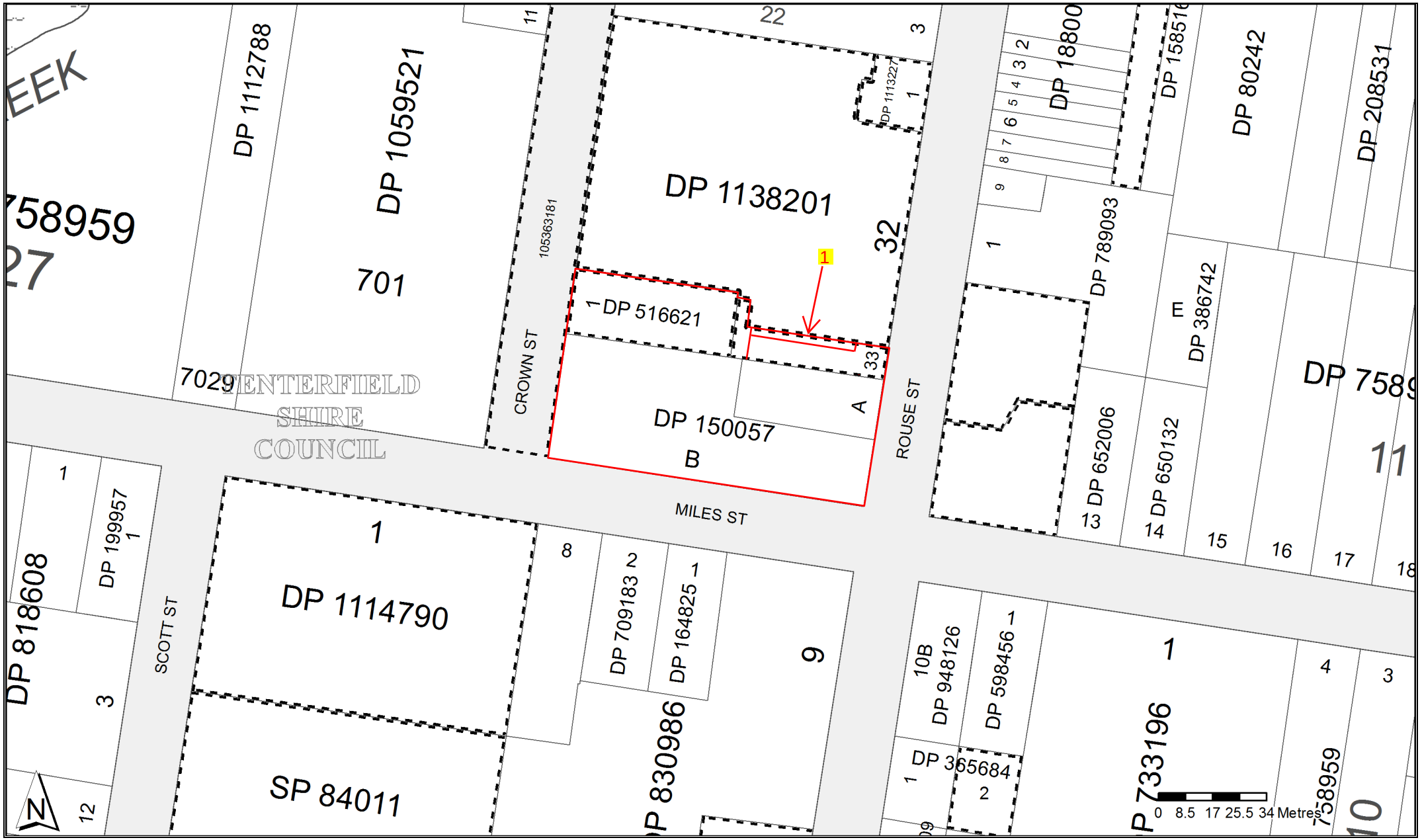
Email: mark.groll@infotrack.com.au 4

LAND REGISTRY SERVICES

Cadastral Records Enquiry Report : Lot B DP 150057

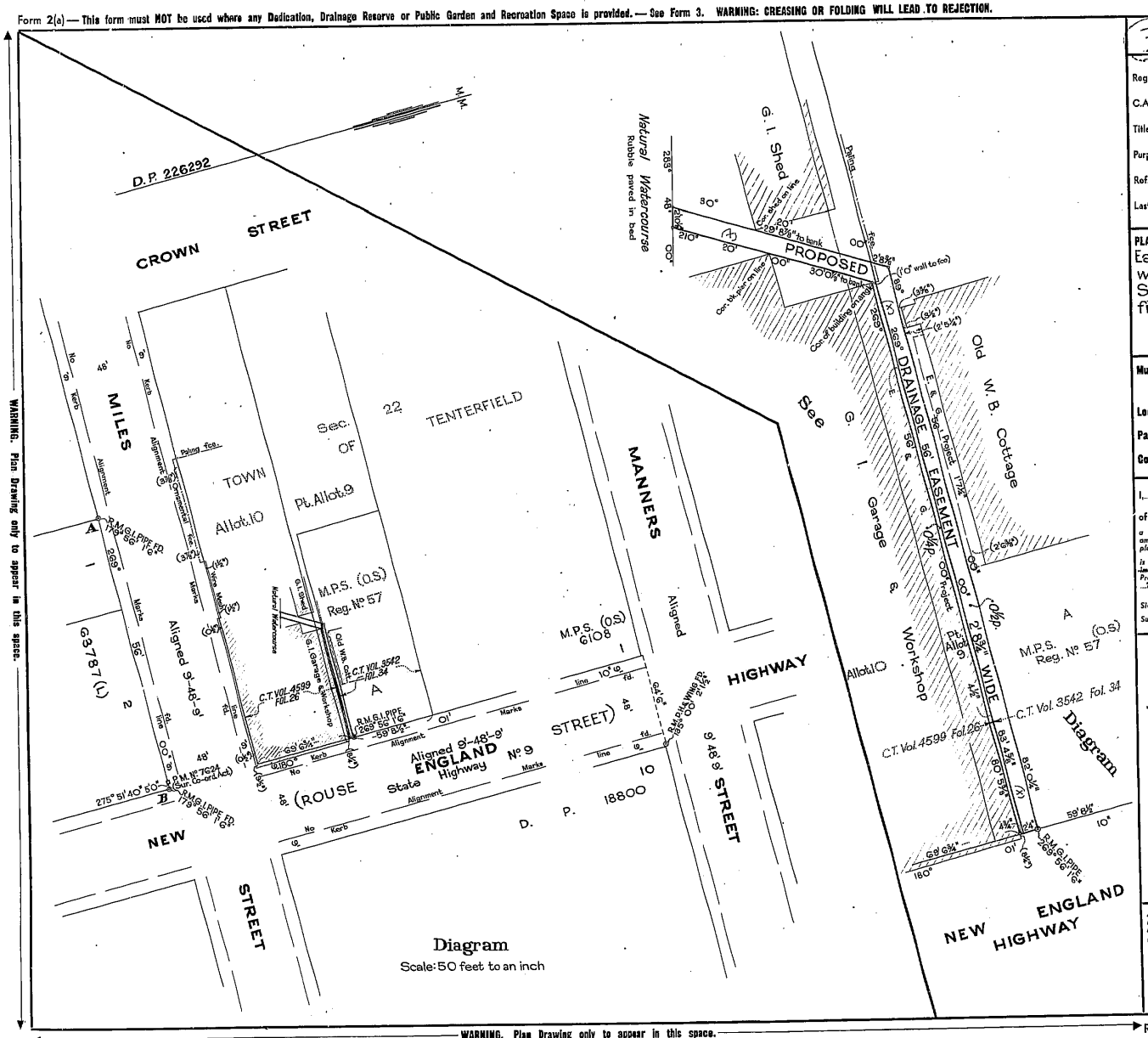
Ref : Tenterfield Lie

Locality : TENTERFIELD
Parish : TENTERFIELD
LGA : TENTERFIELD
County : CLIVE



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Form 2(a) — This form must NOT be used where any Dedication, Drainage Reserve or Public Garden and Recreation Space is provided. — See Form 3. WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION.



WARNING. Plan Drawing only to appear in this space.

M.P.D.

WARNING. Plan Drawing only to appear in this space.

REF. 95478 File: 9/429.112

D.P. 226292

Registered: 12.8.1965

C.A.:

Title System: Torrens

Purpose: Easement

Ref. Map: Town of Tenterfield

Last Plan M.P.S.(O.S.) 57 (Pt.)

PLAN OF Proposed Drainage Easement to be acquired within Allot 10 & Pt. Allot 9 Sec. 22, Town of Tenterfield and Lot A, M.P.S.(O.S.) Reg. No 57

Scale: 10 feet to an inch

OFFICE USE ONLY.

Mun./~~Shire~~ ~~City~~: Tenterfield

Locality: Tenterfield

Parish: Tenterfield

County: Clive

I, William Hugh George

of Department of Main Roads, Sydney

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan

is accurate and has been made *(1) by me (2) ~~under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on 27th Dec. 1964

Signature: William H George 7556

Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Azimuth: A–B F.B. 5611 P.W.M. 52

Statements of Proposed Easements.

Approved

E. T. Moore

Deputy Principal Land Surveyor and Property Officer, Department of Main Roads.

D.M.R. PLAN No.

Approved by Council. I hereby certify that the requirements of the Local Government Act, 1919 (other than the requirements for registration of plans), have been complied with by the applicant in relation to the proposed subdivision set out hereon.

Subdivision No. ..... Date .....

Council Clerk .....

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 226292

FEET	INCHES	METRES
-	0 1/4	0.006
-	0 1/2	0.013
-	1 1/2	0.038
-	3 3/8	0.086
-	3 1/2	0.089
-	3 7/8	0.098
-	4 3/4	0.121
-	8 1/4	0.210
-	9 1/2	0.241
1	-	0.305
1	6	0.457
1	7 1/4	0.489
2	1 1/2	0.648
2	4	0.711
2	5 1/4	0.743
2	6 3/8	0.772
2	8 3/8	0.822
2	8 3/4	0.832
2	10 1/8	0.867
5	-	1.524
8	8 3/4	2.661
9	-	2.743
29	8 7/8	9.065
30	0 7/8	9.166
48	-	14.630
56	-	17.069
59	8 1/2	18.199
64	6	19.660
69	6 3/4	21.203
80	5 3/8	24.521
82	0 1/4	25.000
82	4 5/8	25.111
83	4 5/8	25.416

AC	RD	P	SQ M
-	-	1/4	6.3
-	-	1/2	12.6

AMENDMENTS OR ADDITIONS NOTED ON PLAN IN REGISTRAR GENERAL'S OFFICE.

table of mm

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 2nd day of June, 1977

1

PLAN FORM 2

Plan Drawing only to appear in this space

SIGNATURE AND SEALS ONLY

Executed on behalf of Sexton + Green (Sales + Service) Pty Ltd by

Graham George ROSSINGTON (Director)

Leeayne Carol ROSSINGTON (Secretary)

Mortgagee under Mortgage No 0806718 2
Signed at Sydney this 29th day of December 2008 for National Australia Bank Limited ABN 12 004 044 937 by AM4 chu its duly appointed Attorney under Power of Attorney No. 39 Book 4512

AB203821

Level 2 Attorney

Witness/Bank Officer
255 George Street, Sydney NSW

Executed and certified correct in accordance with Section 127 Corporations Act 2001 by the corporation named below by the authorised person(s) whose signature(s) appear below.
Corporation: Tenterfield Agricultural Society Ltd
Gerard Hanno (Director)
Marcus Joseph Stephan (Director)

The Department of Lands Approval

.....in approving this plan certify
[Authorised Officer]
st all necessary approvals in regard to the allocation of the land
own hereon have been given
ignature .....
ate .....
le Number .....
ffice .....

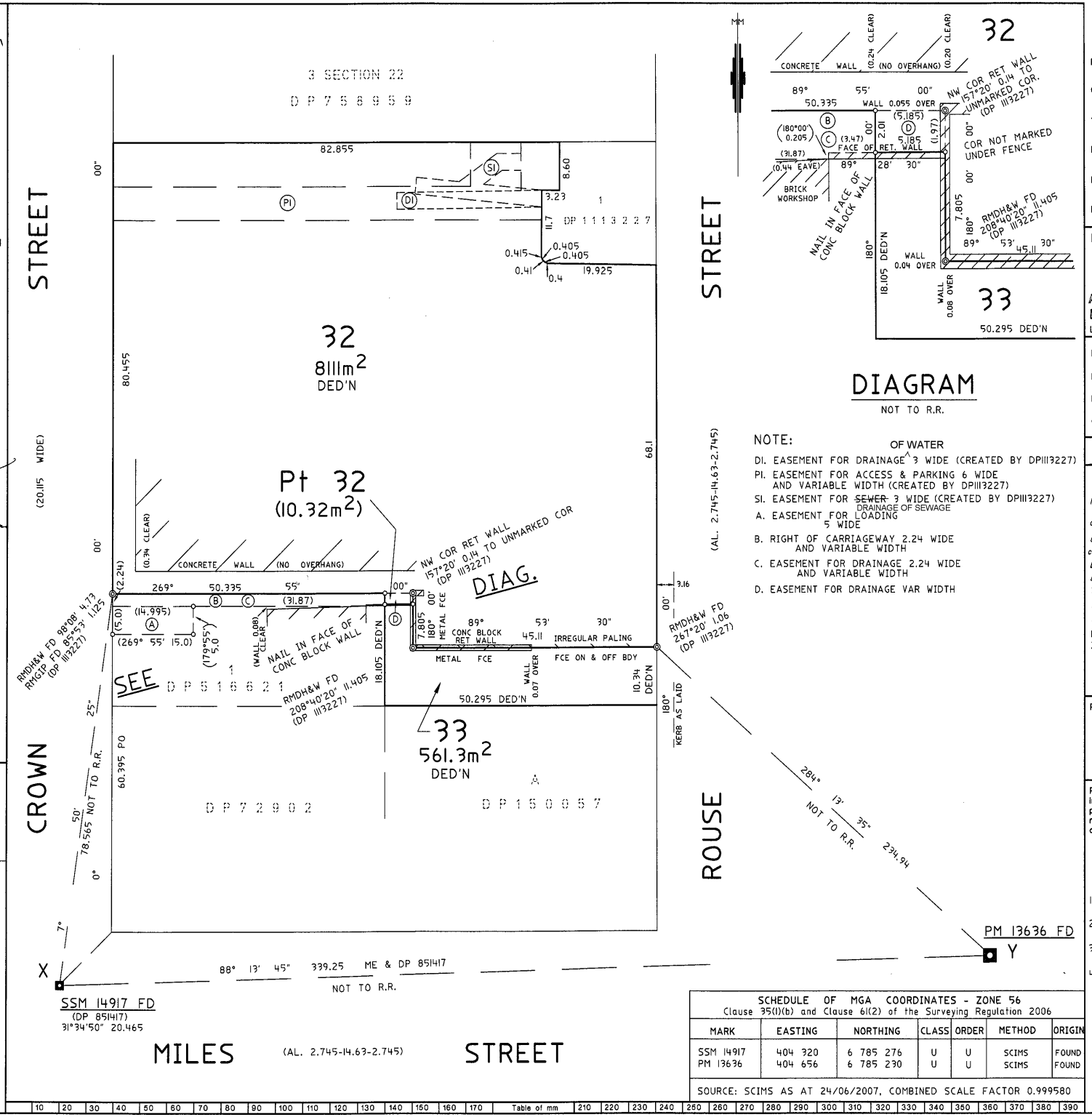
Subdivision Certificate

ertify that the provisions of s109J of the Environmental Planning
d Assessment Act 1979 have been satisfied in relation to the
roposed SUBDIVISION set out herein
× (insert or "subdivision" or "new road")
× Authorised person/General Manager/Accredited Certifier
nsent Authority TENTERFIELD SHIRE COUNCIL
te of Endorsement 17 December 2008
ccreditation No. .....
bdivision Certificate No. 103
e No. DA 2008/075

te:
hen the plan is electronically lodged in the Land Titles Office, should include a signature in an electronic or digital format proved by the Registrar General.

× Delete whichever is inapplicable

SURVEYOR'S REFERENCE: 0731 Checklist



DIAGRAM

NOT TO R.R.

NOTE: OF WATER

DI. EASEMENT FOR DRAINAGE 3 WIDE (CREATED BY DP1113227)
PI. EASEMENT FOR ACCESS & PARKING 6 WIDE AND VARIABLE WIDTH (CREATED BY DP1113227)
SI. EASEMENT FOR ~~SEWER~~ 3 WIDE (CREATED BY DP1113227) DRAINAGE OF SEWAGE
A. EASEMENT FOR LOADING 5 WIDE
B. RIGHT OF CARRIAGEWAY 2.24 WIDE AND VARIABLE WIDTH
C. EASEMENT FOR DRAINAGE 2.24 WIDE AND VARIABLE WIDTH
D. EASEMENT FOR DRAINAGE VAR WIDTH

SCHEDULE OF MGA COORDINATES - ZONE 56
Clause 35(1)(b) and Clause 61(2) of the Surveying Regulation 2006

MARK	EASTING	NORTHING	CLASS	ORDER	METHOD	ORIGIN
SSM 14917	404 320	6 785 276	U	U	SCIMS	FOUND
PM 13636	404 656	6 785 230	U	U	SCIMS	FOUND

SOURCE: SCIMS AS AT 24/06/2007, COMBINED SCALE FACTOR 0.999580

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1138201 P

Registered: 12.5.2009
C.A. SEE CERTIFICATE
Title System: TORRENS
Purpose: SUBDIVISION
Ref. Map: TENTERFIELD SH2#
Last Plan DP1113227, DP587603, DP851417

PLAN
OF SUBDIVISION OF LOT 2 IN DP 1113227, LOT 3 IN DP 587603 & LOT 2 IN DP 851417 AND EASEMENTS WITHIN LOT 1 IN DP516621
Lengths are in metres. Reduction Ratio 1:500

LGA: TENTERFIELD
Locality: TENTERFIELD
Parish: TENTERFIELD
County: CLIVE

This is sheet 1 of my plan in ~~sheets~~ (Delete if inapplicable)

Survey Certificate
Surveying Regulation, 2001

I, ANTHONY T HARVEY
ENVIROLINK CONSULTING
of 95 BARKER ST CASINO 2470

a surveyor registered under the Surveying Act 2002, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveying Regulation 2001 and was completed on 3rd Mar 2007
The survey relates to BOUNDARY ADJUSTMENT AND EASEMENTS ONLY

Datum: 'X' - 'Y'
Zone: Urban
(Signature) A.T. Harvey
Surveyor registered under the Surveying Act, 2002

Plans used in preparation of survey/~~compilation~~
DP 587603 DP 1113227 DP 851417
DP 516621

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

IT IS INTENDED, PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919, AS AMENDED, TO CREATE:-

1. EASEMENT FOR LOADING 5 WIDE
2. RIGHT OF CARRIAGEWAY 2.24 WIDE AND VARIABLE WIDTH
3. EASEMENT FOR DRAINAGE 2.24 WIDE AND VARIABLE WIDTH
4. EASEMENT FOR DRAINAGE VAR WIDTH

DP563114

Form 1

OFFICE USE ONLY

PLAN OF SUBDIVISION OF LOT 2 D P 516621 BEING LAND IN ~~OF ALLOTMENT 8 SECTION 22~~ CONVEYANCE BOOK 3063 NO 81

Mun./~~Shire~~/~~City~~ TENTERFIELD

Town or Locality TENTERFIELD

Parish TENTERFIELD

County CLIVE

LENGTHS ARE IN METRES **Scale** 1:400

D P 563114

Registered: LN 19.7.1973

C.A.: No 341/73 OF 21.5.1973

Title System: OLD SYSTEM

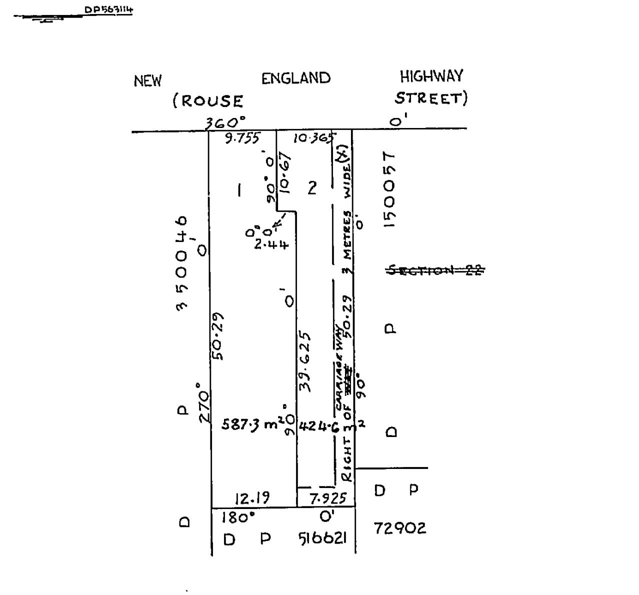
Purpose: SUBDIVISION

Ref. Map: TENTERFIELD SH 2#

Last Plan: D P 516621

Y002AID

WARNING. Plan Drawing only to appear in this space.



Signatures, Seals and Statements of Intention to dedicate public roads or public reserves or create drainage reserves, easements, or restrictions as to user.

Pursuant to Section 88B of the Conveyancing Act it is intended to create a right of carriageway 3 metres wide

COPY OF INSTRUMENT FILED AS DEED BOOK 3105 No 37

~~I, ... of .... a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan .... is accurate and has been made* (1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on† ....~~

~~Datum Line of Azimuth~~ ~~Signature .... Surveyor Registered under Surveyors Act, 1929, as amended.~~

* Strike out either (1) or (2). † Insert date of survey.

Council Clerk's Certificate.

I hereby certify that—

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of Section 34B of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended,

have been complied with by the applicant in relation to the proposed SUBDIVISION (insert "new road" or "subdivision") set out herein.

Subdivision No. 341/73

Date 21/5/1973

(Signature) .... Council Clerk.

* NOTE.—This part of certificate to be deleted where the application is only for the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water Sewerage and Drainage Board.

† Insert date of survey

* Strike out either (1) or (2).

MPD

D P 563114

SURVEYORS REFERENCE

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 20th day of December, 1976.

12350237

[redacted]FICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

Vol. 12350 Fol. 237
SEE AUTO FOLIO
Edition issued 14-2-1974

Appln. No.22902

Prior Title Vol.3542 Fol.34

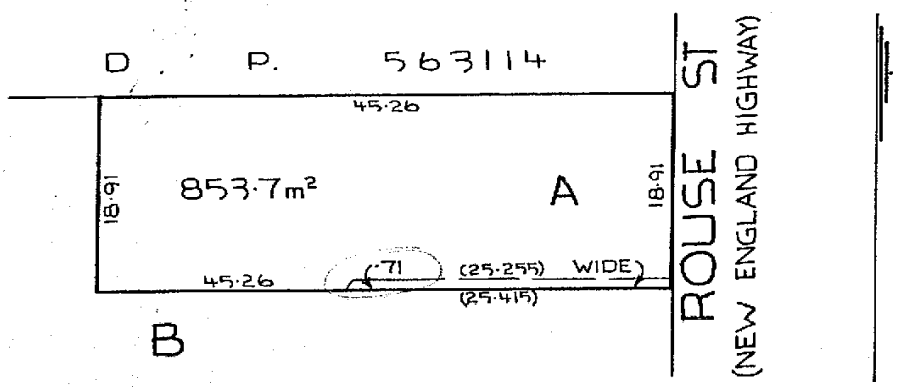
(Page 1) Vol. 12350 Fol. 237

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



N656167

REDUCTION RATIO 1:500

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot A in Deposited Plan 150057 in the Municipality of Tenterfield Town and Parish of Tenterfield and County of Clive being part of Allotment 9 of Section 22 granted to Edmund Curry on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~SARAH ELIZABETH WRIGHT, of Tenterfield, Widow.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Drainage created by Notice of Resumption No.L35328 affecting the part of the land above described .71 metres wide shown in the plan hereon. designated (x) in DP 226292

R852310(A)

S600527R

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~Edward Richard McKenna of Lurnea, Technical Officer and Terence Frederick Kneipp of Tenterfield, Solicitor as joint tenants~~	~~Transmission~~	~~R852310~~	~~---~~	~~10-6-1980~~	
Sexton & Green (Sales & Service) Pty. Ltd.	Transfer	S600527		22.9.1980	

CANCELLED

SEE AUTO FOLIO

Vol. 12350 Fol. 237

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

[redacted]ICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

Vol. 12915 Fol. 227

Edition issued 30-10-1975.

(Page 1) Vol. 12915 Fol. 227

IVA NO. 17014

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

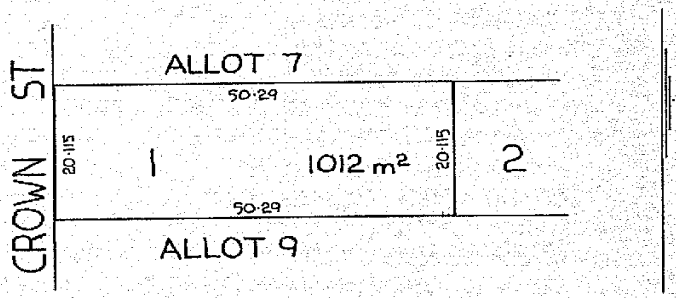
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



IVA 17014 ST. 886

REDUCTION RATIO 1:800

ESTATE AND LAND REFERRED TO

S
Estate in Fee Simple in Lot 1 in Deposited Plan 516621 at Tenterfield in the Municipality of Tenterfield Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

MORTGAGEES

~~ERIC CLAUDE JOSEPH COOK of Caloundra, in the State of Queensland, Company Director as to one undivided one-third share and JESSIE BERYL COOK his wife, as to the remaining two undivided one-third shares as Tenants in Common.~~

SECOND SCHEDULE

GRY
1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION The land within described is held subject to any subsisting interest (as defined in Section 28A of the Real Property Act, 1900). 30-10-1975
3. ~~Caveat No.P543164 by the Registrar General.~~ Withdrawn Q559276

Vol. 12915 Fol. 227

Q559276E

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Sexton & Green (Sales & Service) Pty. Limited	Transfer	Q559276	15.2.1978		

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

13390227

[redacted]CATE OF TITLE

NEW SOUTH WALES [redacted] PROPERTY ACT, 1900

IVA No.24617

Vol. 13390 Fol. 227

EDITION ISSUED 25 7 1977

(Page 1) Vol. 13390 Fol. 227

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

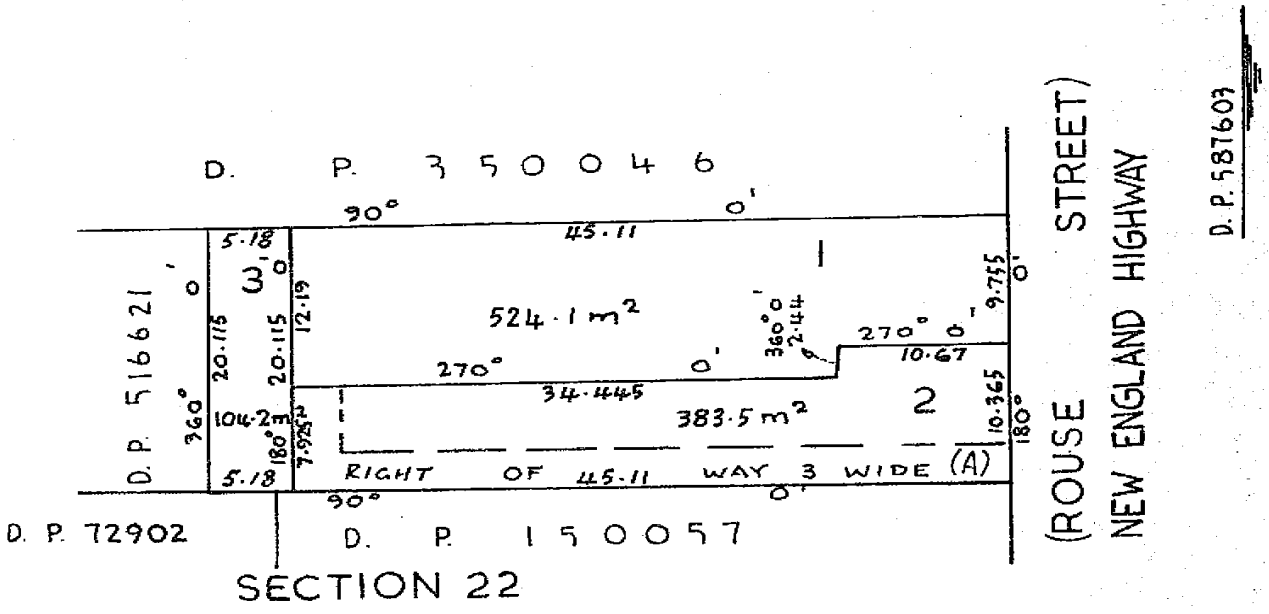
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

S Estate in Fee Simple in Lot 1 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

CRY
EC
1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25-7-1977
RCZ
3. Right of Carriageway appurtenant to the land above described created by the registration of Deposited Plan 587603 See Deed Book 3256 No.16.

X228442 2T91

Vol. 13390 Fol. 227

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Nance Oenone Geyer by Transmission X228442. Registered 27-11-1987					

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

97-01 T

[redacted]

TRANSFER

Real Property Act, 1900

0
296528 W

Office of State Revenue use only

$2.00 220595 220S 04 8004861977/03

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

Volume 13390 **Folio** 227 NOW BEING 1/587603

In the Shire of Tenterfield Parish of Tenterfield County of Clive

Certificate Application

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
39u	REED HANIGAN & TURNER LAW STATIONERS SYDNEY DX. 452 SYDNEY. PH.: 252 1466 REFERENCE (max. 15 characters): STUART WALDOCK

(C) **TRANSFEROR** NANCE OENONE GEYER

(D) acknowledges receipt of the consideration of forty four thousand dollars ($44,000.00)

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. Reservations & Conditions 2. Qualified Title 3. DP587603 Right of Carriageway

(F) **TRANSFEREE**

T

GARY WAYNE WALDOCK and ROSLYN ANNE WALDOCK of Tenterfield in the State of New South Wales as Joint Tenants as to 84 per centum and SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED (ACN 001 089 210) whose registered office is 320 Rouse Street Tenterfield, aforesaid as to the remaining 16 per centum thereof

(G) **TENANCY:** Tenants in Common OFF QG

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** 5th June 1995

Signed in my presence by the Transferor who is personally known to me.

Melinda Wilkes
Signature of Witness

MELINDA WILKES
Name of Witness (BLOCK LETTERS)

133 Castlereagh St, Sydney
Address of Witness

NANCE OENONE GEYER
by Protective Commissioner
Signature of Transferor

Signed in my presence by the Transferee who is personally known to

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

ROGER HARDINGE BRAHAM
SOLICITOR
NEW SOUTH WALES & QUEENSLAND
320 ROUSE STREET TENTERFIELD
Signature of Transferee

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

18-5-95

13390228

[redacted]CATE OF TITLE

NEW SOUTH WALES

[redacted] PROPERTY ACT, 1900

IVA No.24617

Vol. 13390 Fol. 228

EDITION ISSUED

25 7 1977

13390 Fol. 228

(Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

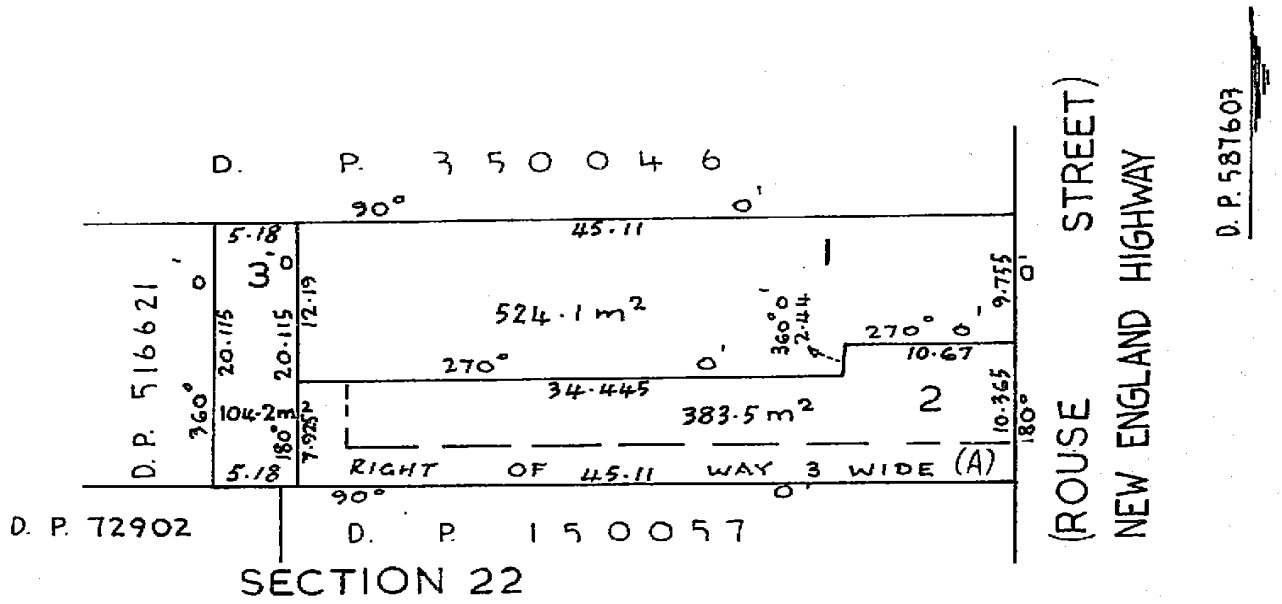
CANCELLED

SEE AUTO FOLIO

Registrar-General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25.7.1977
3. Right of Carriageway affecting the part of the land above described shown in the plan hereon title diagram as "Right of Way 3 metres wide" created by the registration of Deposited Plan 587603
   See Deed Book 3256 No.16.
4. ~~Caveat No.Q289229 by the Registrar General~~. Withdrawn Q433003

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Vol. 13390 Fol. 228

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Sexton & Green (Sales & Service) Pty. Limited.	Transfer	Q433003	-------	3-11-1977	[signature]

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

97-01 T

[redacted]

TRANSFER

Real Property Act, 1900

O 694273 K

Office of Stat

OFFICE OF STATE REVENUE
STAMP DUTY (N.S.W. TREASURY) N19
1994/95
DUTY $ 10-00 8005/804

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

ALL THAT the Transferors' Eighty Four (84) per centum share or interest in Part Lot 2 D.P. 851417 which was formerly part of Lot 1 D.P. 587603

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
39u	REED HANIGAN & TURNER LAW STATIONERS SYDNEY DX. 452 SYDNEY. PH.: 232 1466 REFERENCE (max. 15 characters): SCB SEXTON

(C) **TRANSFEROR** GARY WAYNE WALDOCK and ROSLYN ANNE WALDOCK

(D) acknowledges receipt of the consideration of ....ONE..DOLLAR..($1.00.).....

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T

SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED (A.C.N. 001 089 210)

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** ...../...../...1995.....

Signed in my presence by the Transferor who is personally known to me.

.....
Signature of Witness

ROGER HARDINGE BRAHAM
SOLICITOR
NEW SOUTH WALES & QUEENSLAND
220 ROUSE STREET TENTERFIELD

Name of Witness (BLOCK LETTERS)

.....
Address of Witness

.....
Signature of Transferor

Signed in my presence by the Transferee who is personally known to me

.....
Signature of Witness

.....
Name of Witness (BLOCK LETTERS)

.....
Address of Witness

THE COMMON SEAL of SEXTON & GREEN (Sales & Service) Pty. Limited (ACN 001 089 210) was hereunto affixed in the presence of:

SEXTON & GREEN (SALES & SERVICE) PTY. LIMITED A.C.N. 001 089 210 Seal

Secretary

Signature of Transferee Director

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only) .....

13390229

CERTIFICATE OF TITLE

NEW SOUTH WALES — PROPERTY ACT, 1900

Vol. 13390 Fol. 229

EDITION ISSUED 25 7 1977

IVA No.24617

13390 229 Fol. (Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

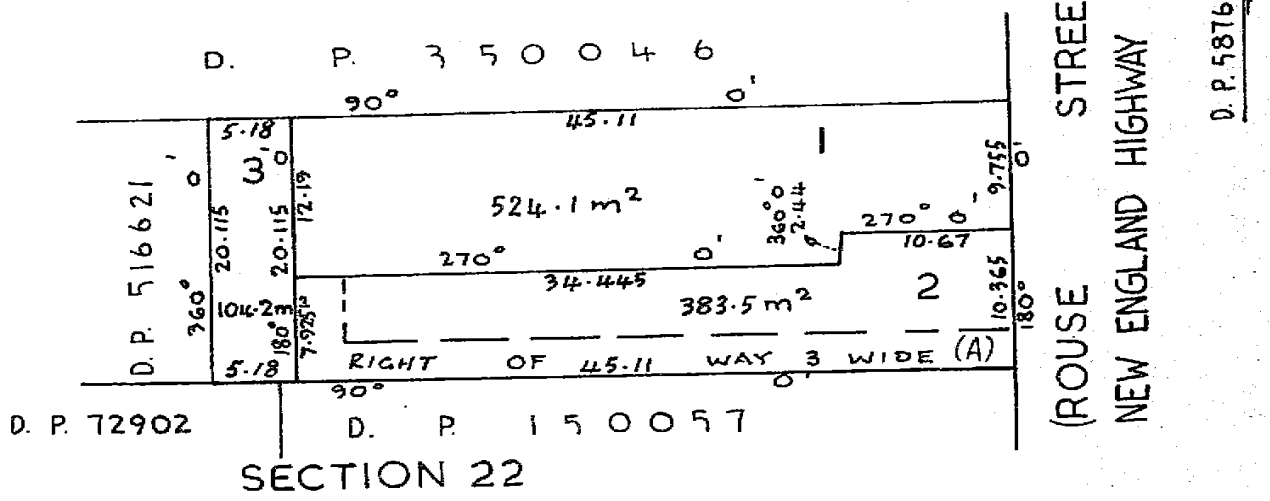
CANCELLED

Registrar General.

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 3 in Deposited Plan 587603 at Tenterfield in the Shire and Parish of Tenterfield and County of Clive being part of Allotment 8 of Section 22 granted to Anthony Leporte on 10-11-1859. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

S

FIRST SCHEDULE

~~LUKE GEYER of Tenterfield, Pensioner and NANCE GEYER, his wife as tenants in common in equal shares.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in section 28A of the Real Property Act,1900). 25-7-1977

~~3. Caveat No.Q289229 by the Registrar General.~~ Withdrawn Q433004

GRY QG

Vol. 13390 Fol. 229

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Sexton & Green (Sales & Service) Pty. Limited.	Transfer	Q433004	------	3-11-1977	

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Appendix G

Analytical Summary

Contaminants of Concern (mg/kg)				TRH F1 (C_6 to C_{10})	TRH F2 (C_{10} to C_{16})	TRH F3 (C_{16} to C_{34})	TRH F4 (C_{34} to C_{40})	Benzene	Toluene	Ethylbenzene	Xylene	Naphthalene	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	PAH – BaP TEQ	Total PAH	Phenol	DDT+DDE+DDD	Aldrin & dieldrin	Chlordane	Endosulfan	Endrin	Heptachlor	HCB	Methoxychlor	Toxaphene	Chlorpyrifos
Assessment Criteria		HIL	Depth										100	20	100	6000	300	40	400	7,400	3	300	3,000	240	6	50	270	10	6	10	300	20	160
		HSL-Sand	0-1m	45	110	4,500	6,300	0.5	160		40	3																					
		HSL-Sand	1-2m	70	240			0.5	220		60																						
		HSL-Sand	2-3m	110	440			0.5	310		95																						
		ESL	0-2m	180	120	1,300	5,600	95	135	185	95	170	100		330	140	1100		60	390	0.7			180									
Sample ID	Sample Description	Sample Type	Depth (mm)	Sample Details																												
1-1	Grey, silty clay loam, moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	240	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.3	< 0.4	8	18	230	< 0.1	< 5	170	< 0.5	< 0.5	< 0.5										
1-2	Brown sandy clay, gravel,moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	210	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	11	< 0.4	20	17	150	< 0.1	8.7	88	< 0.5	< 0.5	< 0.5										
1-3-0.1	Yellow sandy loan, gravel,moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	120	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	6.7	0.4	13	16	160	< 0.1	< 5	86	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-3-1.1	Brown sandy clay, gravel,moist, high plasticity	Soil	1.1 .1.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.3	< 0.4	< 5	100	38	< 0.1	< 5	130	< 0.5	< 0.5	< 0.5										
1-3-3.1	Yellow, sandy clay loam,moist, low plasticity	Soil	3.1 – 3.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	7.3	< 5	5.7	< 0.1	< 5	39	< 0.5	< 0.5	< 0.5										
1-4-0.2	Grey heavy claymoist,high plasticity	Soil	0.2 – 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	5.7	< 0.4	17	9.3	7.1	< 0.1	7.7	48	< 0.5	< 0.5	< 0.5										
1-5	Brown sandy clay, gravel,moist, low plasticity	Soil	0.25 - 0.40	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	9.6	< 0.1	< 5	17	< 0.5	< 0.5	< 0.5										
1-6-0.25	Red sandy loam, gravel,moist, low plasticity	Soil	0.25 – 0.40	< 20	< 50	660	200	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	6.5	7.2	310	< 0.1	< 5	180	< 0.5	< 0.5	< 0.5										
1-6-0.40	Red sandy loam, gravel,moist, low plasticity	Soil	0.4 – 0.65	< 20	< 50	940	300	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	32	< 0.1	< 5	9.8	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-7-0.15	Red sandy loam, gravel,moist, low plasticity	Soil	0.15 - 0.30	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	6	< 0.4	16	< 5	12	0.1	< 5	37	< 0.5	< 0.5	< 0.5										
1-7-3.15	Brown sandy clay, gravel,wet, low plasticity	Soil	3.15 – 3.30	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	17	< 5	13	< 0.1	< 5	36	< 0.5	< 0.5	< 0.5										
1-8	Yellow silty clay loan,moist, low plasticity	Soil	0 - 0.15	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.6	< 0.4	13	5	9.7	< 0.1	6	49	< 0.5	< 0.5	< 0.5										
1-9	Grey/brown silty clay loam, gravel,moist, low plasticity	Soil	0 - 0.15	< 20	< 50	160	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.4	< 0.4	13	9.4	43	< 0.1	< 5	150	< 0.5	< 0.5	< 0.5										
1-10	Grey/brown silty clay loam, large rocks, moist, low plasticity	Soil	0.15 - 0.30	< 20	< 50	140	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.5	1	13	23	150	< 0.1	6.8	180	< 0.5	< 0.5	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.2
1-11	Grey heavy clay,moist, high plasticity	Soil	0.15 - 0.30	< 20	< 50	100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	8.6	52	< 0.1	< 5	110	< 0.5	< 0.5	< 0.5										
1-12	Grey heavy clay,moist, high plasticity	Soil	0.1 - 0.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3	< 0.4	8.1	7	51	1.3	< 5	65	< 0.5	< 0.5	< 0.5										
1-13	Yellow clay loam,moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	< 5	< 5	< 5	< 0.1	< 5	26	< 0.5	< 0.5	< 0.5										
1-14	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.1 - 0.25	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.2	< 0.4	< 5	< 5	20	< 0.1	< 5	40	< 0.5	< 0.5	< 0.5										
1-15	Yellow sandy clay, gravel, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.2	< 0.4	10	< 5	6.6	< 0.1	5.6	32	< 0.5	< 0.5	< 0.5										
1-16	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.2	< 0.4	17	12	89	< 0.1	< 5	140	< 0.5	< 0.5	< 0.5										
1-17	Yellow sandy clay loam, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	3.9	< 0.4	5.4	< 5	< 5	< 0.1	9.4	14	< 0.5	< 0.5	< 0.5										
1-18	Yellow sandy clay, rocks, moist, low plasticity	Soil	0.2 - 0.35	< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	2.6	< 0.4	5.6	< 5	5.6	< 0.1	< 5	16	< 0.5	< 0.5	< 0.5										
Further Analysis																																
No. Samples				22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	3	3	3	3	3	3	3	3	3	0
Samples above LOR				0	0	0	2	0	0	0	0	0	15	2	16	12	20	2	6	22	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration				0	0	940	300	0	0	0	0	0	11	1	20	100	310	1	9	180	0	0	0	0	0	0	0	0	0	0	0	0	0
Average				10	25	149	68	0	0	0	0	0	3	0	9	12	64	0	4	76	0	0	0	0	0	0	0	0	0	0	0	0	0
Standard Deviation				0	0	222	61	0	0	0	0	0	2	0	6	21	84	0	2	58	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Required Sample				0	0	14	5	0	0	0	0	0	414	0	5	35	12	0	49	4	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL				10	25	231	91	0	0	0	0	0	4	0	11	19	95	0	5	97	0	0	0	0	0	0	0	0	0	0	0	0	0
Coefficient of Variance (CV)				0	0	1	1	0	0	0	0	0	1	1	1	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Duplicate Anlysis																																
7-3.15	Sample 1			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	17	< 5	13	< 0.1	< 5	36	< 0.5	< 0.5	< 0.5										
7-3.15-B	Duplicate 1			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 2	< 0.4	12	< 5	8.5	< 0.1	< 5	23	< 0.5	< 0.5	< 0.5										
	Duplicate RPD 1			0	0	0	0	0	0	0	0	0	0	0	34.48	0	41.86	0	0	44.07	0	0	0										
7-9	Sample 2			< 20	< 50	160	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.4	< 0.4	13	9.4	43	< 0.1	< 5	150	< 0.5	< 0.5	< 0.5										
7-9-B	Duplicate 2			< 20	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	4.1	< 0.4	11	8.5	43	< 0.1	< 5	140	< 0.5	< 0.5	< 0.5										
	Duplicate RPD 2			0	0	0	0	0	0	0	0	0	7.059	0	16.67	0	0	0	0	6.897	0	0	0										

**A multiplier of 0.5 was applied to results below the LOR for assessment purposes.*

Notes

- *Highlighted results are above guideline values (Yellow = HIL, Orange=HIL and EIL).*
- *Background sample was not included in the analysis*
- *Samples were only analysed for targeted CoPC*

- *HILs and EILs are presented in National Environmental Protection (Assessment of Site Contamination) Measure 2013 (NEPC, 2013).Tables 1A(1), 1(B)4, 1(B)5.*

Contaminants of Concern (mg/kg)			TRH F1 (C_6 to C_{10})	TRH F2 (C_{10} to C_{16})	Benzene	Toluene	Ethylbenzene	Xylene	Naphthalene	Benzo(a)pyrene	Arsenic	Cadmium	Chromium	Copper	Lead	Mecury	Nickel	Zinc	PAH – BaP TEQ	Total PAH	Phenols
Assessment Criteria	Freshwater		1	1	0.95	0.18	0	0.35	0.016	0.0002	0.024	0.0002	0.001	0.0014	0.0034	NL	0.011	0.008	NL	NL	0.32
	Drinking Water				0.001	0.8	0.3	0.6	0	0.00001	0.01	0.002	0.05	1	0.01	0.001	0.02	3	NL	NL	0.4
Sample ID	Sample Type	Depth (m)																			
Drain	Water	0.1	< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.0002	0.001	0.005	0.003	< 0.0001	< 0.001	0.072	< 0.001	< 0.001	< 0.003
GW1	Water		< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	0.003	< 0.0002	0.005	0.001	0.028	< 0.0001	0.001	0.021	< 0.001	< 0.001	< 0.003
GW2	Water		< 0.02	< 0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001	< 0.0002	< 0.001	< 0.001	0.001	< 0.0001	< 0.001	0.005	< 0.001	< 0.001	< 0.003
Further Analysis																					
No. samples			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Samples above LOR			0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0	0	0
Max Conc			0	0	0	0	0	0	0	0	0	0	0.001	0.005	0.003	0	0	0.072	0	0	0

Notes
Highlighted results are above guideline values.
**Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC /ARMCANZ, 2000), 95% Protection Level for Fresh and Marine Water.*
***Australian Drinking Water Guidelines (National Health and Medical Research Council, Agricultural and Resources Management Council of Australia and New Zealand) 2011.*

Appendix H

Soil Sampling and Field Screening Methodology

Soil sampling methodology & procedures for soil sampling are as follows:

- Sampling equipment is to be decontaminated immediately prior to sampling, then decontaminated again after extraction of every individual sample.
- Industry standard field tapes, GPS, compasses and maps are to be used to identify and record each of the sample stations.
- Latex or rubber protective gloves are to be used during all soil sampling procedures.
- A hand operated auger or trowel is to be used to collect soil samples at required depths in accordance with AS 4482.1 (2005) sections 7.3.3 and 7.3.5 (a).
- A split spoon sampler can be used during deep profile sampling or the drilling of well boreholes;
- A backhoe may be used for collecting samples from excavated areas;
- Samples are to be immediately placed in a labelled (using permanent waterproof marker) sample jar.
- Samples are to be stored in a cooler with ice in accordance with AS4482.1 (2005) section 7.4.2, and transported to the Environmental Analysis Laboratory at Southern Cross University on the same day for storage and analysis.
- A dated and signed chain of custody form, listing all samples from the site including the names of investigators and samplers, is to accompany the samples to the laboratory.
- All individual samples shall be logged during sampling and observations and weather recorded along with sampler's name, date and time of each sample extraction in accordance with AS 4482.1 (2005) section 7.6.

NOTE: Samples should be delivered as soon as practicable to a NATA certified laboratory, and stored in a refrigerator (that is not used for food storage purposes) if they are not delivered to the analytical laboratory the same day that they are collected. Chain of Custody forms must be completed upon submission of the samples to the laboratory, and copies of forms must be retained by the site supervisor.

Decontamination of equipment followed the procedures outlined in AS 4482.1 (2005) section 7.5.6, and involved the following:

- Removal of excess soil with a dry scrubbing brush.
- Washing of equipment in fresh water + detergent using a clean scrubbing cloth.
- Rinsing of equipment in fresh water containing detergent using a scrubbing brush.
- Washing of equipment in fresh water.
- Rinsing of equipment in fresh water.
- Drying of equipment with a disposable cloth towel, then air-dried prior to use.

Analysis of samples to be conducted by NATA accredited Laboratory. All necessary Personal Protection Equipment shall be used by soil sampling personnel.

Soil field screening (headspace analysis) for volatile organic compounds methodology & procedures using a photo ionisation detector (PID) are as follows:

- Sampling equipment is to be decontaminated immediately prior to sampling, then decontaminated again after extraction of every individual sample.
- A hand auger or trowel should be used for collecting surface and composite samples of stockpile soils.
- A split spoon sampler can be used during deep profile sampling or the drilling of well boreholes;
- A backhoe may be used for collecting samples from excavated areas;
- Samples are placed in a glass container or plastic zip lock bag (one-half to two-thirds full);
- Sample containers should be cleaned prior to use and decontaminated between samples if they are reused;
- The container must be quickly covered with one or more sheets of aluminium foil or Teflon sheeting (approximately 2 mm thick) or an air-tight, screw-on lid or sealed using the zip lock mechanism if a bag is used;
- Prior to analysis, the sample should be allowed to sit for 5 to 10 minutes to reach ambient temperature. Samples should not be allowed to sit long enough for condensation to form in the container/bag;
- The PID probe must be inserted into a pierced hole or opening. Sample analysis is to be conducted for as long enough to respond to vapours but not long enough to draw in outside air;
- The highest reading observed within the first 10 seconds is to be recorded.;
- An ambient soil sample shall be analysed from an adjacent site to provide background levels;
- Instrument maintenance records and calibration records shall be maintained;

Where VOCs are detected using a PID, samples must be collected for chemical analysis

Appendix I

Borehole Drill Logs

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ENVIRONMENTAL BOREHOLE BH3

PROJECT NUMBER 21299
PROJECT NAME Rouse St Tenterfield DSI
CLIENT Nutrien Harcourts
ADDRESS 148 Rouse St, Tenterfield

DRILLING DATE 30/09/2021
DRILLING COMPANY Soil tech
DRILLER Chris Seefeld
DRILLING METHOD Push tube
TOTAL DEPTH 3.3

Location North of wash down holding tank

LOGGED BY Lise Bolton-Ecoteam

COMMENTS 1.8 m from workshop wash down holding tank outside of the building

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
					SC	Concrete	no odour
	0.3	3- 0.1	Y			CLAYEY SAND: Brown sandy clay, yellow mottles, moist, low plasticity	
0.5							
	0.3	3-0.6	N				
1						CLAYEY SAND: Yellow sandy clay, wet, low plasticity	
	0.4	3-1.1	Y				dark staining, no odour
1.5							no odour
	0.4	3-1.6	N				
					CH	CLAY: Grey, moist, dense, high plasticity	
2							
	0.4	3-2.1	N				
2.5							
	0.4	3-2.6	N				
3							
	0.4	3-3.1	Y				
						Termination Depth at:3.3 m	

Disclaimer This log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 16 Oct 2021

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natural solutions for environmental challenges

ENVIRONMENTAL BOREHOLE BH7

PROJECT NUMBER 21299
PROJECT NAME Rouse St Tenterfield DSI
CLIENT Nutrien Harcourts
ADDRESS 148 Rouse St, Tenterfield

DRILLING DATE 30/09/2021
DRILLING COMPANY Soil tech
DRILLER Chris Seefeld
DRILLING METHOD Push tube
TOTAL DEPTH 3.3

Location North of Former mechanic pits

LOGGED BY Lise Bolton-Ecoteam

COMMENTS Adjacent to the north western former mechanic pits within the workshop

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	USCS	Material Description	Additional Observations
						Concrete	no odour
						Gravel	
	0.4	7- 0.15	Y		SC	CLAYEY SAND: Brown sandy clay, yellow mottles, moist, low plasticity	
0.5							
							some gravel
1	0.3	7- 0.95	N		CL	CLAY: Grey, moist, dense, low plasticity	change soil class
	0.3	7-1.15	N			CLAY: Yellow silty clay, wet, low plasticity	standing water level at 1.2 m sample extraction difficult
1.5							
2							
	0.4	3-1.67-2.15	N				
2.5							
3							
	0.4	3-3.15	Y				
						Termination Depth at:3.3 m	

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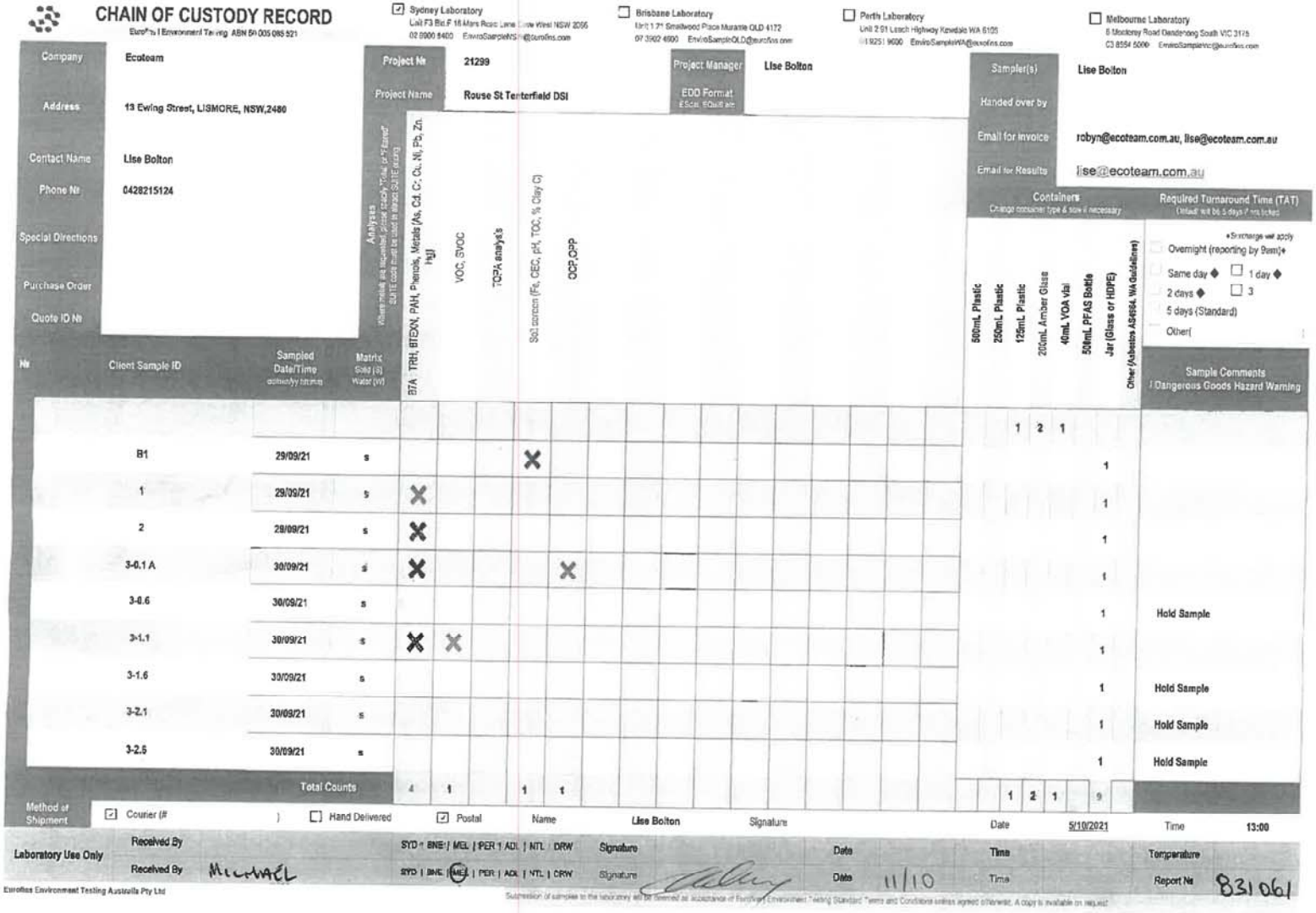
Appendix J

Chain-of-Custody Forms



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066 — 02 9900 8400 — EnviroSamplesNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1 21 Smallwood Place Murarrie QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2 91 Leach Highway Kewdale WA 6105 — 61 8251 9600 — EnviroSamplesWA@eurofins.com

☐ Melbourne Laboratory — 6 Mackaway Road Dandenong South VIC 3175 — 03 8564 5000 — EnviroSamplesVic@eurofins.com

Company	Ecoteam	Project No	21299
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone No	0428215124	EDD Format (ESdat, EQuIS etc)	
Special Directions		Sampler(s)	Lise Bolton
Purchase Order		Handed over by	
Quote ID No		Email for invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
		Email for Results	lise@ecoteam.com.au

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE codes must be used to assess SUITE pricing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if no ticked

*Surcharge will apply

☐ Overnight (reporting by 9am)*
☐ Same day ◆ ☐ 1 day ◆
☐ 2 days ◆ ☐ 3
☐ 5 days (Standard)
☐ Other

No	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix Solid (s) Water (w)	B7A: TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TOPA analy's	Soil concen (Fe, CEC, pH, TOC, % Clay C)	OCP,OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
									1	2	1						
	B1	29/09/21	s				X								1		
	1	29/09/21	s	X											1		
	2	29/09/21	s	X											1		
	3-0.1 A	30/09/21	s	X				X							1		
	3-0.6	30/09/21	s												1		Hold Sample
	3-1.1	30/09/21	s	X	X										1		
	3-1.6	30/09/21	s												1		Hold Sample
	3-2.1	30/09/21	s												1		Hold Sample
	3-2.5	30/09/21	s												1		Hold Sample
	Total Counts			4	1		1	1		1	2	1			9		

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☑ Postal — Name: Lise Bolton — Signature: — Date: 5/10/2021 — Time: 13:00

Laboratory Use Only

Received By: — SYD | BNE | MEL | PER | ADL | NTL | DRW — Signature: — Date: — Time: — Temperature:

Received By: MICHAEL — SYD | BNE | MEL | PER | ADL | NTL | DRW — Signature: — Date: 11/10 — Time: — Report No: 831061

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request

CHAIN OF COUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory
Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066

☐ Brisbane Laboratory

☐ Perth Laboratory

☐ Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
EnviroSampleVic@eurofins.com

Company	Ecoteam	Project №	21299
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone №	0428215124	EDD Format (ESdat, EQuIS etc)	
Special Directions		Sampler(s)	Lise Bolton
Purchase Order		Handed over by	
Quote ID №		Email for Invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
		Email for Results	lise@ecoteam.com.au

Required Turnaround Time (TAT) — Default will be 5 days if not ticked
◆Surcharge will apply
Overnight (reporting by 9am)◆
Same day ◆ ☐ 1 day ◆
2 days ◆ ☐ 3
5 days (Standard)
Other(

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers — Change container type & size if necessary

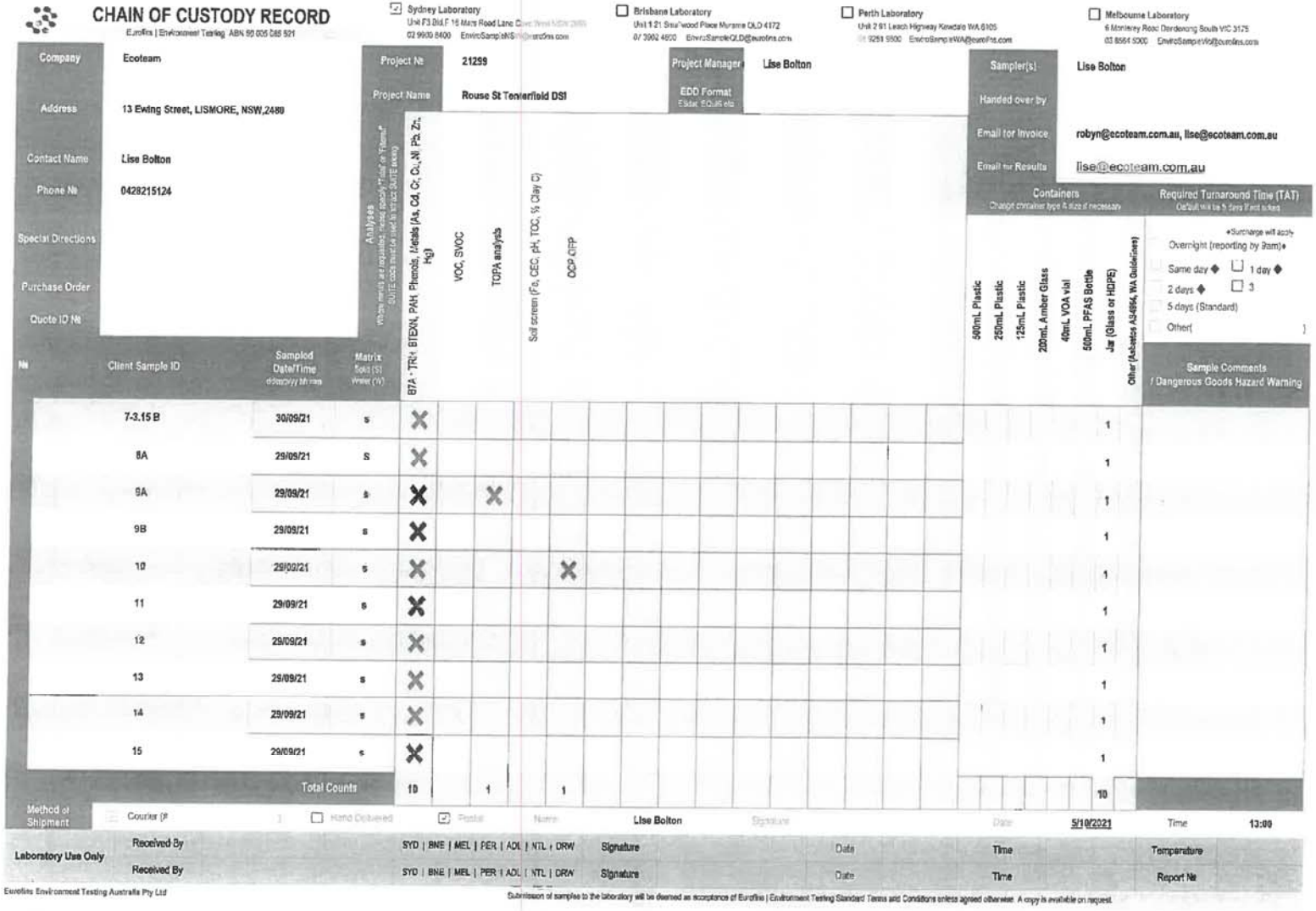
№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix Solid (S) Water (W)	B7A : TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TCPA analysis	Soil screen (Fe, CEC, pH, TOC, % Clay C)	OCP OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
	3-3.1	30/09/21	s	X											1		
	4-0.2	29/09/21	S	X											1		
	5	29/09/21	s	X											1		
	6-0.25	29/09/21	s	X											1		
	6-0.4	29/09/21	s	X				X							1		
	7-0.15	30/09/21	s	X											1		
	7-0.95	30/09/21	s												1		Hold Sample
	7-1.15	30/09/21	s												1		Hold Sample
	7-2.15	30/09/21	s												1		Hold Sample
	7-3.15 A	30/09/21	s	X											1		
		Total Counts		7				1							10		

Method of Shipment: ☑ Courier (# ☐ Hand Delivered ☑ Postal Name Lise Bolton Signature Date 5/10/2021 Time 13:00

Laboratory Use Only
Received By SYD | BNE | MEL | PER | ADL | NTL | DRW Signature Date Time Temperature
Received By SYD | BNE | MEL | PER | ADL | NTL | DRW Signature Date Time Report №

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066 — 02 9900 8400 — EnviroSampleNS@eurofins.com

☐ Brisbane Laboratory — Unit 1 21 Smallwood Place Murarrie QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2 91 Leach Highway Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 6 Monterey Road Dandenong South VIC 3175 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Ecoteam	Project №	21299
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone №	0428215124	EDD Format	
Special Directions		Sampler(s)	Lise Bolton
Purchase Order		Handed over by	
Quote ID №		Email for Invoice	robyn@ecoteam.com.au, lise@ecoteam.com.au
		Email for Results	lise@ecoteam.com.au

Analyses — Where metals are required, please specify "Total" or "Filtered". SUITE codes must be used to ensure SUITE testing

Containers — Change container type & size if necessary

Required Turnaround Time (TAT) — Default will be 5 days if not ticked

*Surcharge will apply

Overnight (reporting by 9am)* ☐ Same day ◆ ☐ 1 day ◆ ☐ 2 days ◆ ☐ 3 ☐ 5 days (Standard) ☐ Other( )

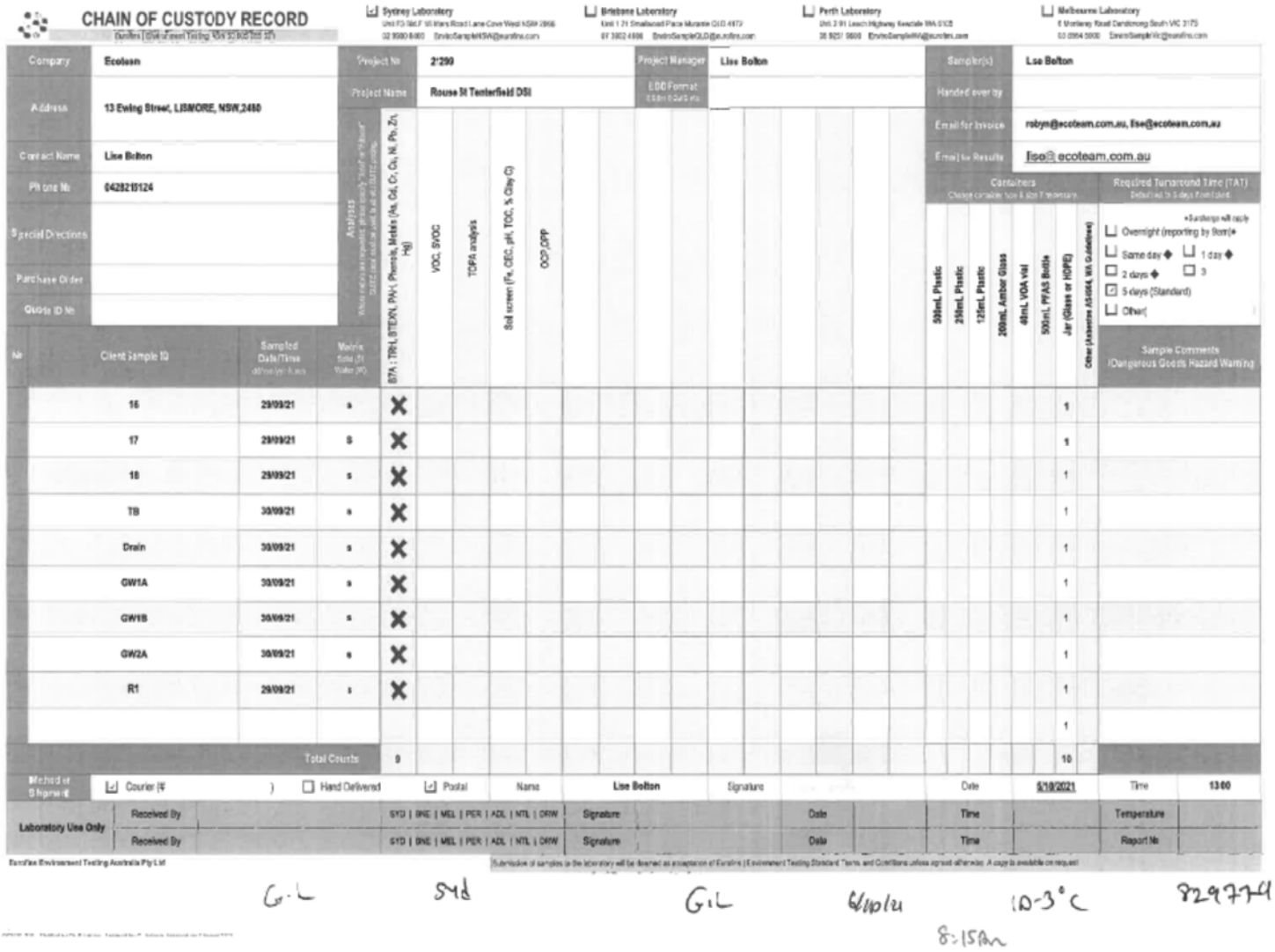
№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Soil (S) Water (W)	BTEX - TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)	VOC, SVOC	TOPA analysis	Soil screen (Fe, CEC, pH, TOC, % Clay C)	OCP, OPP	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
	7-3.15 B	30/09/21	s	X											1		
	8A	29/09/21	S	X											1		
	9A	29/09/21	s	X		X									1		
	9B	29/09/21	s	X											1		
	10	29/09/21	s	X				X							1		
	11	29/09/21	s	X											1		
	12	29/09/21	s	X											1		
	13	29/09/21	s	X											1		
	14	29/09/21	s	X											1		
	15	29/09/21	s	X											1		
	Total Counts			10		1		1							10		

Method of Shipment: Courier (#) ☐ Hand Delivered ☑ Postal — Name: Lise Bolton — Signature: — Date: 5/10/2021 — Time: 13:00

Laboratory Use Only						
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature	
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №	

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.



CHAIN OF CUSTODY RECORD

Sydney Laboratory | Brisbane Laboratory | Perth Laboratory | Melbourne Laboratory

Company	Ecoteam	Project No	2'290
Address	13 Ewing Street, LISMORE, NSW,2480	Project Name	Rouse St Tenterfield DSI
Contact Name	Lise Bolton	Project Manager	Lise Bolton
Phone No	0428215124	Sampler(s)	Lse Bolton
Special Directions		Handed over by	
Purchase Order		Email for Invoice	robyn@ecoteam.com.au, lse@ecoteam.com.au
Quote ID No		Email for Results	lse@ecoteam.com.au

Analytes: BTA ; TRH, BTEXN, PAH (Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)); VOC, SVOC; TOPA analysis; Soil screen (Fe, CEC, pH, TOC, % Clay C); OCP,OPP

Containers: 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

Required Turnaround Time (TAT): Overnight (reporting by 9am)♦; Same day ♦; 1 day ♦; 2 days ♦; 3; 5 days (Standard); Other

№	Client Sample ID	Sampled Date/Time	Matrix Soil (S) Water (W)	BTA	Jar (Glass or HDPE)	Sample Comments /Dangerous Goods Hazard Warning
	16	29/09/21	s	X	1	
	17	29/09/21	s	X	1	
	18	29/09/21	s	X	1	
	TB	30/09/21	s	X	1	
	Drain	30/09/21	s	X	1	
	GW1A	30/09/21	s	X	1	
	GW1B	30/09/21	s	X	1	
	GW2A	30/09/21	s	X	1	
	R1	29/09/21	s	X	1	
					1	
		Total Counts		9	10	

Method of Shipment: ☑ Courier ( ) ☐ Hand Delivered ☑ Postal | Name: Lise Bolton | Signature | Date: 5/10/2021 | Time: 1300

Laboratory Use Only: Received By | SYD | BNE | MEL | PER | ADL | NTL | DRW | Signature | Date | Time | Temperature

Received By | SYD | BNE | MEL | PER | ADL | NTL | DRW | Signature | Date | Time | Report №

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request

G.L SYd G.L 6/10/21 10-3°C 829774 8:15Am

CHAIN OF CUSTODY FORM - Client

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ENVIROLAB GROUP
National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
✆ 02 9910 6200 | ✉ sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt, Myaree, WA 6154
✆ 08 9317 2505 | ✉ lab@mpl.com.au

Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
✆ 03 9763 2500 | ✉ melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
✆ 08 7087 6800 | ✉ adelaide@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
✆ 07 3266 9532 | ✉ brisbane@envirolab.com.au

Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820
✆ 08 8967 1201 | ✉ darwin@envirolab.com.au

Client: Ecotechnology Trading as Ecoteam	Client Project Name/Number/Site etc (ie report title): Tenterfield DSI -21299
Contact Person: Robyn Mirigliani	
Project Mgr: Lise Bolton	PO No.:
Sampler: Lise Bolton	Envirolab Quote No. :
Address: 13 Ewing Street Lismore NSW 2480	Date results required: Standard Or choose: ~~standard / same~~ day / 1 day / 2 day / 3 day *Note: Inform lab in advance if urgent turnaround is required - surcharges apply*
Phone: 02 66215123 Mob: 0428215124	Additional report format: esdat / equis /
Email: lise@ecoteam.com.au	Lab Comments: Testing - Comb 4- TRH, BTEXN, PAH, Phenols, Metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg)

Sample information					PO No.:															Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Comb 4 (metals (As, Cd, Cr, Cu, Ni, Pb, Zn, Hg))															Provide as much information about the sample as you can
1	3-0.1B		30/09/2021	Soil	X															Jar Soil
2	8-B		29/09/2021	Soil	X															Jar Soil
3	GW2B		30/09/2021	Water	X															4 x water bottles
~~4~~																				

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): Ecoteam	Received by (Company): EC SYD	*Lab Use Only*	
Print Name: Lise Bolton	Print Name: TJ HOW	Job number: 279716	Cooling: Ice / Ice pack / None
Date & Time: 5/10/2021	Date & Time: 06.10.2021 09.15	Temperature: 11	Security seal: Intact / Broken / None
Signature: Lise Bolton	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD	

Appendix K

Analytical Results and Laboratory QA

Ecoteam
13 Ewing Street
Lismore
NSW 2480

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Lise Bolton**

Report **831061-S**
Project name ROUSE ST TENTERFIELD DSI
Project ID 21299
Received Date Oct 07, 2021

Client Sample ID			**B1**	**1**	**2**	**3-0.1 A**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**M21-Oc20247**	**M21-Oc20248**	**M21-Oc20249**	**M21-Oc20250**
Date Sampled			**Sep 29, 2021**	**Sep 29, 2021**	**Sep 29, 2021**	**Sep 30, 2021**
Test/Reference	LOR	Unit				
% Clay	1	%	5.0	-	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	18	-	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	5.9	-	-	-
Total Organic Carbon	0.1	%	1.8	-	-	-
% Moisture	1	%	6.7	11	5.9	15
Heavy Metals						
Arsenic	2	mg/kg	-	3.3	11	6.7
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	0.4
Chromium	5	mg/kg	-	8.0	20	13
Copper	5	mg/kg	-	18	17	16
Iron	20	mg/kg	8500	-	-	-
Lead	5	mg/kg	-	230	150	160
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	< 5	8.7	< 5
Zinc	5	mg/kg	-	170	88	86
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	6.2	-	-	-
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	-	97	74	< 50
TRH C29-C36	50	mg/kg	-	160	150	75
TRH C10-C36 (Total)	50	mg/kg	-	257	224	75
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	-	240	210	120
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	240	210	120

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	86	82	74
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	66	62	66
p-Terphenyl-d14 (surr.)	1	%	-	78	78	85
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

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
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	%	-	120	56	53
Total Non-Halogenated Phenol*	20	mg/kg	-	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	93
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	84
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

Client Sample ID			B1	1	2	3-0.1 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20247	M21-Oc20248	M21-Oc20249	M21-Oc20250
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	-	-	-	94

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	21	13	32	12
Heavy Metals						
Arsenic	2	mg/kg	2.3	< 2	5.7	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	7.3	17	< 5
Copper	5	mg/kg	100	< 5	9.3	< 5
Lead	5	mg/kg	38	5.7	7.1	9.6
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	7.7	< 5
Zinc	5	mg/kg	130	39	48	17
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	83	70	68	63
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	%	76	70	59	52
p-Terphenyl-d14 (surr.)	1	%	98	103	95	79
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	72	101	94	85
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Volatile Organics						
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
Total MAH*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	83	-	-	-
Toluene-d8 (surr.)	1	%	81	-	-	-
Semivolatile Organics						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	-	-
1-Chloronaphthalene	0.5	mg/kg	< 0.5	-	-	-
1-Naphthylamine	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Chloronaphthalene	0.5	mg/kg	< 0.5	-	-	-
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2-Fluorobiphenyl (surr.)	1	%	76	-	-	-
2-Methylnaphthalene	0.5	mg/kg	< 0.5	-	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	-	-
2-Naphthylamine	0.5	mg/kg	< 0.5	-	-	-
2-Nitroaniline	0.5	mg/kg	< 0.5	-	-	-
2-Nitrophenol	1.0	mg/kg	< 1	-	-	-
2-Picoline	0.5	mg/kg	< 0.5	-	-	-
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	-	-	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2.4-Dinitrophenol	5	mg/kg	< 5	-	-	-
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Semivolatile Organics						
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.4.6-Tribromophenol (surr.)	1	%	98	-	-	-
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	-	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	-	-
3-Methylcholanthrene	0.5	mg/kg	< 0.5	-	-	-
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	-	-	-
4-Aminobiphenyl	0.5	mg/kg	< 0.5	-	-	-
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	-	-
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	-	-	-
4-Nitrophenol	5	mg/kg	< 5	-	-	-
4.4'-DDD	0.5	mg/kg	< 0.5	-	-	-
4.4'-DDE	0.5	mg/kg	< 0.5	-	-	-
4.4'-DDT	0.5	mg/kg	< 0.5	-	-	-
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
a-HCH	0.5	mg/kg	< 0.5	-	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Acetophenone	0.5	mg/kg	< 0.5	-	-	-
Aldrin	0.5	mg/kg	< 0.5	-	-	-
Aniline	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
b-HCH	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Benzyl chloride	0.5	mg/kg	< 0.5	-	-	-
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	-	-	-
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	-	-	-
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	-	-	-
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
d-HCH	0.5	mg/kg	< 0.5	-	-	-
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	-	-	-
Dibenzofuran	0.5	mg/kg	< 0.5	-	-	-
Dieldrin	0.5	mg/kg	< 0.5	-	-	-
Diethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dimethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	-	-	-
Diphenylamine	0.5	mg/kg	< 0.5	-	-	-
Endosulfan I	0.5	mg/kg	< 0.5	-	-	-
Endosulfan II	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			3-1.1	3-3.1	4-0.2	5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20251	M21-Oc20252	M21-Oc20253	M21-Oc20254
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Semivolatile Organics						
Endosulfan sulphate	0.5	mg/kg	< 0.5	-	-	-
Endrin	0.5	mg/kg	< 0.5	-	-	-
Endrin aldehyde	0.5	mg/kg	< 0.5	-	-	-
Endrin ketone	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
g-HCH (Lindane)	0.5	mg/kg	< 0.5	-	-	-
Heptachlor	0.5	mg/kg	< 0.5	-	-	-
Heptachlor epoxide	0.5	mg/kg	< 0.5	-	-	-
Hexachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Hexachlorobutadiene	0.5	mg/kg	< 0.5	-	-	-
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	-	-	-
Hexachloroethane	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Methoxychlor	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	-	-	-
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Nitrobenzene	0.5	mg/kg	< 0.5	-	-	-
Nitrobenzene-d5 (surr.)	1	%	82	-	-	-
Pentachlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
Phenol-d6 (surr.)	1	%	72	-	-	-
Pronamide	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Trifluralin	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	12	9.0	23	18
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	6.0	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.5	< 5	16	17
Copper	5	mg/kg	7.2	< 5	< 5	< 5
Lead	5	mg/kg	310	32	12	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	180	9.8	37	36

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	270	440	< 50	< 50
TRH C29-C36	50	mg/kg	470	670	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	740	1110	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	660	940	< 100	< 100
TRH >C34-C40	100	mg/kg	200	300	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	860	1240	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	87	146	111
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	%	64	64	113	111
p-Terphenyl-d14 (surr.)	1	%	91	89	102	98
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	88	88	111	110
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	-
a-HCH	0.05	mg/kg	-	< 0.05	-	-
Aldrin	0.05	mg/kg	-	< 0.05	-	-
b-HCH	0.05	mg/kg	-	< 0.05	-	-
d-HCH	0.05	mg/kg	-	< 0.05	-	-
Dieldrin	0.05	mg/kg	-	< 0.05	-	-
Endosulfan I	0.05	mg/kg	-	< 0.05	-	-
Endosulfan II	0.05	mg/kg	-	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	-
Endrin	0.05	mg/kg	-	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	-
Endrin ketone	0.05	mg/kg	-	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	-	-
Heptachlor	0.05	mg/kg	-	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	-
Methoxychlor	0.05	mg/kg	-	< 0.05	-	-
Toxaphene	0.5	mg/kg	-	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	-	116	-	-
Tetrachloro-m-xylene (surr.)	1	%	-	95	-	-

Client Sample ID			6-0.25	6-0.4	7-0.15	7-3.15 A
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc20255	M21-Oc20256	M21-Oc24723	M21-Oc24727
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 30, 2021	Sep 30, 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	%	-	124	-	-

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	12	9.8	16	21
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.6	4.4	4.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	13	13	11
Copper	5	mg/kg	< 5	5.0	9.4	8.5

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	5	mg/kg	8.5	9.7	43	43
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	6.0	< 5	< 5
Zinc	5	mg/kg	23	49	150	140
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	65	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	110	58
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	175	58
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	160	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	160	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	106	102	96
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	%	110	108	114	107
p-Terphenyl-d14 (surr.)	1	%	95	92	100	106

Client Sample ID			7-3.15 B	8A	9A	9B
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24728	M21-Oc24729	M21-Oc24730	M21-Oc24731
Date Sampled			Sep 30, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	103	103	111	114
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	17	15	7.7	5.8
Heavy Metals						
Arsenic	2	mg/kg	3.5	< 2	3.0	< 2
Cadmium	0.4	mg/kg	1.0	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	< 5	8.1	< 5
Copper	5	mg/kg	23	8.6	7.0	< 5
Lead	5	mg/kg	150	52	51	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	1.3	< 0.1
Nickel	5	mg/kg	6.8	< 5	< 5	< 5
Zinc	5	mg/kg	180	110	65	26
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	62	54	< 50	< 50
TRH C29-C36	50	mg/kg	99	60	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	161	114	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	140	100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	140	100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	94	100	115
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	%	114	107	103	115
p-Terphenyl-d14 (surr.)	1	%	118	111	92	112
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	117	114	109	118
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-HCH	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	135	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	106	-	-	-
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	-	-	-

Client Sample ID			10	11	12	13
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24732	M21-Oc24733	M21-Oc24734	M21-Oc24735
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	119	-	-	-

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
% Moisture	1	%	11	4.9	8.7	6.5
Heavy Metals						
Arsenic	2	mg/kg	4.2	2.2	3.2	3.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	10	17	5.4
Copper	5	mg/kg	< 5	< 5	12	< 5
Lead	5	mg/kg	20	6.6	89	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.6	< 5	9.4
Zinc	5	mg/kg	40	32	140	14

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	102	102	105	105
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	%	110	111	110	107
p-Terphenyl-d14 (surr.)	1	%	108	107	104	98
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			14	15	16	17
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M21-Oc24736	M21-Oc24737	M21-Oc24738	M21-Oc24739
Date Sampled			Sep 29, 2021	Sep 29, 2021	Sep 29, 2021	Sep 29, 2021
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	113	111	107	108
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			18
Sample Matrix			Soil
Eurofins Sample No.			M21-Oc24740
Date Sampled			Sep 29, 2021
Test/Reference	LOR	Unit	
% Moisture	1	%	6.9
Heavy Metals			
Arsenic	2	mg/kg	2.6
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	5.6
Copper	5	mg/kg	< 5
Lead	5	mg/kg	5.6
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	16
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100

Client Sample ID			18
Sample Matrix			Soil
Eurofins Sample No.			M21-Oc24740
Date Sampled			Sep 29, 2021
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	104
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	106
p-Terphenyl-d14 (surr.)	1	%	103
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5

Client Sample ID			18
Sample Matrix			**Soil**
Eurofins Sample No.			**M21-Oc24740**
Date Sampled			**Sep 29, 2021**
Test/Reference	LOR	Unit	
Phenols (non-Halogenated)			
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	106
Total Non-Halogenated Phenol*	20	mg/kg	< 20

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
% Clay	Brisbane	Oct 18, 2021	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-INO-4060 Total Organic Carbon in water and soil			
Heavy Metals	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Oct 13, 2021	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
% Moisture	Sydney	Oct 12, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Metals M8	Sydney	Oct 14, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (Halogenated)	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Oct 14, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)			
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Volatile Organics	Melbourne	Oct 13, 2021	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)			
Semivolatile Organics	Melbourne	Oct 13, 2021	14 Days
- Method: USEPA SW 846 8270			

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Company Name: Ecoteam
Address: 13 Ewing Street
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NSW 2480

Project Name: ROUSE ST RENTERFIELD DSI
Project ID: 21299

Order No.:
Report #: 831061
Phone: 0428 215 124
Fax:

Received: Oct 7, 2021 4:29 PM
Due: Oct 14, 2021
Priority: 5 Day
Contact Name: Lise Bolton

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	CANCELLED	HOLD	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Suite B14: OCP/OPP	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7A	Eurofins Suite B7A	Eurofins Suite SVV: SVOC/VOC
Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	B1	Sep 29, 2021		Soil	M21-Oc20247	X				X	X	X			X		X			
2	1	Sep 29, 2021		Soil	M21-Oc20248										X			X		
3	2	Sep 29, 2021		Soil	M21-Oc20249										X			X		
4	3-0.1 A	Sep 30, 2021		Soil	M21-Oc20250								X		X			X		
5	3-1.1	Sep 30, 2021		Soil	M21-Oc20251										X			X		X
6	3-3.1	Sep 30, 2021		Soil	M21-Oc20252										X			X		
7	4-0.2	Sep 29, 2021		Soil	M21-Oc20253										X			X		
8	5	Sep 29, 2021		Soil	M21-Oc20254										X			X		
9	6-0.25	Sep 29, 2021		Soil	M21-Oc20255										X			X		

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
10	6-0.4	Sep 29, 2021		Soil	M21-Oc20256								X		X			X		
11	3-0.6	Sep 29, 2021		Soil	M21-Oc20257			X												
12	3-1.6	Sep 29, 2021		Soil	M21-Oc20258			X												
13	3-2.1	Sep 30, 2021		Soil	M21-Oc20259			X												
14	3-2.6	Sep 29, 2021		Soil	M21-Oc20260			X												
15	7-0.15	Sep 30, 2021		Soil	M21-Oc24723											X			X	
16	7-0.95	Sep 30, 2021		Soil	M21-Oc24724				X											
17	7-1.15	Sep 30, 2021		Soil	M21-Oc24725				X											
18	7-2.15	Sep 30, 2021		Soil	M21-Oc24726				X											
19	7-3.15 A	Sep 30, 2021		Soil	M21-Oc24727											X			X	
20	7-3.15 B	Sep 30, 2021		Soil	M21-Oc24728											X			X	

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
21	8A	Sep 29, 2021		Soil	M21-Oc24729											X			X	
22	9A	Sep 29, 2021		Soil	M21-Oc24730											X			X	
23	9B	Sep 29, 2021		Soil	M21-Oc24731											X			X	
24	10	Sep 29, 2021		Soil	M21-Oc24732									X		X			X	
25	11	Sep 29, 2021		Soil	M21-Oc24733											X			X	
26	12	Sep 29, 2021		Soil	M21-Oc24734											X			X	
27	13	Sep 29, 2021		Soil	M21-Oc24735											X			X	
28	14	Sep 29, 2021		Soil	M21-Oc24736											X			X	
29	15	Sep 29, 2021		Soil	M21-Oc24737											X			X	
30	16	Sep 29, 2021		Soil	M21-Oc24738											X			X	
31	17	Sep 29, 2021		Soil	M21-Oc24739											X			X	

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Melbourne Laboratory - NATA # 1261 Site # 1254								X		X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA # 1261 Site # 18217							X		X				X	X	X	X	X	X	X	
Brisbane Laboratory - NATA # 1261 Site # 20794						X														
Mayfield Laboratory - NATA # 1261 Site # 25079																				
Perth Laboratory - NATA # 2377 Site # 2370																				
External Laboratory																				
32	18	Sep 29, 2021		Soil	M21-Oc24740											X			X	
33	TB	Sep 30, 2021		Soil	M21-Oc24741		X													
34	DRAIN	Sep 30, 2021		Soil	M21-Oc24742		X													
35	GW1A	Sep 30, 2021		Soil	M21-Oc24743		X													
36	GW1B	Sep 30, 2021		Soil	M21-Oc24744		X													
37	GW2A	Sep 30, 2021		Soil	M21-Oc24745		X													
38	R1	Sep 29, 2021		Soil	M21-Oc24746		X													
Test Counts						1	6	7	7	1	1	1	3	3	25	25	1	24	24	1

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.

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

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 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. 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							
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	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
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							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	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							
Phenols (Halogenated)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	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	
Total Non-Halogenated Phenol*	mg/kg	< 0			20	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	
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							
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
Method Blank							
Volatile Organics							
Benzene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
LCS - % Recovery							
Total Organic Carbon	%	96			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	94			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	98			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	100			80-120	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	100			80-120	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	81			70-130	Pass	
TRH C10-C14	%	85			70-130	Pass	
Naphthalene	%	107			70-130	Pass	
TRH C6-C10	%	79			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
BTEX							
Benzene	%	85			70-130	Pass	
Toluene	%	76			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	79			70-130	Pass	
o-Xylene	%	111			70-130	Pass	
Xylenes - Total*	%	79			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	112			70-130	Pass	
Anthracene	%	89			70-130	Pass	
Benz(a)anthracene	%	98			70-130	Pass	
Benzo(a)pyrene	%	114			70-130	Pass	
Benzo(b&j)fluoranthene	%	98			70-130	Pass	
Benzo(g.h.i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	100			70-130	Pass	
Chrysene	%	98			70-130	Pass	
Dibenz(a.h)anthracene	%	88			70-130	Pass	
Fluoranthene	%	90			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	87			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	98			70-130	Pass	
Pyrene	%	87			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	99			25-140	Pass	
2.4-Dichlorophenol	%	111			25-140	Pass	
2.4.5-Trichlorophenol	%	91			25-140	Pass	
2.4.6-Trichlorophenol	%	118			25-140	Pass	
2.6-Dichlorophenol	%	109			25-140	Pass	
4-Chloro-3-methylphenol	%	118			25-140	Pass	
Tetrachlorophenols - Total	%	99			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2.4-Dimethylphenol	%	107			25-140	Pass	
2-Methylphenol (o-Cresol)	%	110			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	115			25-140	Pass	
4-Nitrophenol	%	126			25-140	Pass	
Phenol	%	101			25-140	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	86			70-130	Pass	
4.4'-DDD	%	126			70-130	Pass	
4.4'-DDE	%	80			70-130	Pass	
4.4'-DDT	%	106			70-130	Pass	
a-HCH	%	88			70-130	Pass	
Aldrin	%	79			70-130	Pass	
b-HCH	%	94			70-130	Pass	
d-HCH	%	90			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	91			70-130	Pass	
Endosulfan II	%	94			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	%	72			70-130	Pass	
Endrin	%	121			70-130	Pass	
Endrin aldehyde	%	96			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	
g-HCH (Lindane)	%	89			70-130	Pass	
Heptachlor	%	98			70-130	Pass	
Heptachlor epoxide	%	99			70-130	Pass	
Hexachlorobenzene	%	80			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	94			70-130	Pass	
Dimethoate	%	103			70-130	Pass	
Fenitrothion	%	127			70-130	Pass	
Mevinphos	%	127			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
Benzene	%	93			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
m&p-Xylenes	%	112			70-130	Pass	
Toluene	%	98			70-130	Pass	
Xylenes - Total*	%	112			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Oc20248	CP	%	79			70-130	Pass	
Naphthalene	M21-Oc20248	CP	%	94			70-130	Pass	
TRH C6-C10	M21-Oc20248	CP	%	80			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M21-Oc20248	CP	%	80			70-130	Pass	
Toluene	M21-Oc20248	CP	%	79			70-130	Pass	
Ethylbenzene	M21-Oc20248	CP	%	80			70-130	Pass	
m&p-Xylenes	M21-Oc20248	CP	%	88			70-130	Pass	
o-Xylene	M21-Oc20248	CP	%	86			70-130	Pass	
Xylenes - Total*	M21-Oc20248	CP	%	87			70-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
Total cresols*	M21-Oc24053	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Oc20256	CP	%	105			70-130	Pass	
4.4'-DDD	M21-Oc20256	CP	%	105			70-130	Pass	
4.4'-DDE	M21-Oc20256	CP	%	127			70-130	Pass	
4.4'-DDT	M21-Oc20256	CP	%	100			70-130	Pass	
a-HCH	M21-Oc20256	CP	%	102			70-130	Pass	
Aldrin	M21-Oc20256	CP	%	78			70-130	Pass	
b-HCH	M21-Oc20256	CP	%	111			70-130	Pass	
d-HCH	M21-Oc20256	CP	%	91			70-130	Pass	
Dieldrin	M21-Oc20256	CP	%	101			70-130	Pass	
Endosulfan I	M21-Oc20256	CP	%	108			70-130	Pass	
Endosulfan II	M21-Oc20256	CP	%	117			70-130	Pass	
Endosulfan sulphate	M21-Oc20256	CP	%	128			70-130	Pass	
Endrin	M21-Oc20256	CP	%	90			70-130	Pass	
Endrin aldehyde	M21-Oc20256	CP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	M21-Oc20256	CP	%	92			70-130	Pass	
g-HCH (Lindane)	M21-Oc20256	CP	%	107			70-130	Pass	
Heptachlor	M21-Oc20256	CP	%	104			70-130	Pass	
Heptachlor epoxide	M21-Oc20256	CP	%	115			70-130	Pass	
Hexachlorobenzene	M21-Oc20256	CP	%	108			70-130	Pass	
Methoxychlor	M21-Oc20256	CP	%	106			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
Hexachlorobenzene	M21-Oc20256	CP	%	108			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S21-Oc17857	NCP	%	85			75-125	Pass	
Zinc	S21-Oc17857	NCP	%	88			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Oc20212	NCP	%	102			70-130	Pass	
Acenaphthylene	S21-Oc20212	NCP	%	111			70-130	Pass	
Anthracene	S21-Oc20212	NCP	%	107			70-130	Pass	
Benz(a)anthracene	S21-Oc20212	NCP	%	101			70-130	Pass	
Benzo(a)pyrene	S21-Oc20212	NCP	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Oc20212	NCP	%	96			70-130	Pass	
Benzo(g.h.i)perylene	S21-Oc20212	NCP	%	87			70-130	Pass	
Benzo(k)fluoranthene	S21-Oc20212	NCP	%	113			70-130	Pass	
Chrysene	S21-Oc20212	NCP	%	103			70-130	Pass	
Dibenz(a.h)anthracene	S21-Oc20212	NCP	%	89			70-130	Pass	
Fluoranthene	S21-Oc20212	NCP	%	104			70-130	Pass	
Fluorene	S21-Oc20212	NCP	%	104			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Oc20212	NCP	%	91			70-130	Pass	
Naphthalene	S21-Oc20212	NCP	%	100			70-130	Pass	
Phenanthrene	S21-Oc20212	NCP	%	95			70-130	Pass	
Pyrene	S21-Oc20212	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Oc24731	CP	%	91			70-130	Pass	
Naphthalene	M21-Oc24731	CP	%	101			70-130	Pass	
TRH C6-C10	M21-Oc24731	CP	%	93			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M21-Oc24731	CP	%	84			70-130	Pass	
Toluene	M21-Oc24731	CP	%	91			70-130	Pass	
Ethylbenzene	M21-Oc24731	CP	%	97			70-130	Pass	
m&p-Xylenes	M21-Oc24731	CP	%	101			70-130	Pass	
o-Xylene	M21-Oc24731	CP	%	98			70-130	Pass	
Xylenes - Total*	M21-Oc24731	CP	%	100			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Oc24732	CP	%	89			75-125	Pass	
Cadmium	M21-Oc24732	CP	%	96			75-125	Pass	
Chromium	M21-Oc24732	CP	%	89			75-125	Pass	
Copper	M21-Oc24732	CP	%	104			75-125	Pass	
Mercury	M21-Oc24732	CP	%	104			75-125	Pass	
Nickel	M21-Oc24732	CP	%	93			75-125	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Diazinon	S21-Oc23556	NCP	%	82			70-130	Pass	
Dimethoate	S21-Oc23556	NCP	%	94			70-130	Pass	
Fenitrothion	S21-Oc23556	NCP	%	128			70-130	Pass	
Mevinphos	S21-Oc23556	NCP	%	122			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	M21-Oc24734	CP	%	72			70-130	Pass	
TRH >C10-C16	M21-Oc24734	CP	%	72			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	B21-Oc21885	NCP	uS/cm	90	110	16	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	M21-Oc20815	NCP	pH Units	6.9	6.9	pass	30%	Pass	
Total Organic Carbon	N21-Oc08789	NCP	%	1.0	1.1	11	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron	M21-Oc14542	NCP	mg/kg	15000	15000	<1	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	N21-Oc08822	NCP	meq/100g	9.8	9.5	2.0	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Total cresols*	M21-Oc27407	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Carbon Tetrachloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	M21-Oc22031	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1-Chloronaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Naphthylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Picoline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M21-Oc21078	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dinitrotoluene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3-Methylcholanthrene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDD	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
b-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	M21-Oc21078	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Oc20256	CP	%	9.0	9.0	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Oc24730	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M21-Oc24730	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Oc24730	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M21-Oc24730	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M21-Oc24730	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M21-Oc24730	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Oc24731	CP	mg/kg	4.1	3.7	9.0	30%	Pass	
Cadmium	M21-Oc24731	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Oc24731	CP	mg/kg	11	10	8.0	30%	Pass	
Copper	M21-Oc24731	CP	mg/kg	8.5	7.3	16	30%	Pass	
Lead	M21-Oc24731	CP	mg/kg	43	30	35	30%	Fail	Q15
Mercury	M21-Oc24731	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	M21-Oc24731	CP	mg/kg	140	110	29	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Oc24731	CP	mg/kg	< 50	57	13	30%	Pass	
TRH C29-C36	M21-Oc24731	CP	mg/kg	58	73	23	30%	Pass	
TRH >C10-C16	M21-Oc24731	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Oc24731	CP	mg/kg	< 100	110	18	30%	Pass	
TRH >C34-C40	M21-Oc24731	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M21-Oc24731	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M21-Oc24731	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M21-Oc24731	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Oc24731	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M21-Oc24731	CP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
Dinoseb	M21-Oc24731	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M21-Oc24731	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M21-Oc24732	CP	%	17	17	2.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Oc20268	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Toxaphene	S21-Oc20268	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bolstar	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorfenvinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Coumaphos	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Demeton-S	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Demeton-O	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diazinon	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
EPN	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethoprop	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethyl parathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenitrothion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Merphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Naled	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Omethoate	S21-Oc20268	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Phorate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pirimiphos-methyl	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrazophos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Terbufos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachlorvinphos	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tokuthion	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S21-Oc20268	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Oc24733	CP	mg/kg	< 2	2.0	5.0	30%	Pass	
Cadmium	M21-Oc24733	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	M21-Oc24733	CP	mg/kg	8.6	12	32	30%	Fail	Q15
Lead	M21-Oc24733	CP	mg/kg	52	45	14	30%	Pass	
Mercury	M21-Oc24733	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	M21-Oc24733	CP	mg/kg	110	88	19	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Oc24733	CP	mg/kg	54	58	8.0	30%	Pass	
TRH C29-C36	M21-Oc24733	CP	mg/kg	60	78	26	30%	Pass	
TRH >C10-C16	M21-Oc24733	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Oc24733	CP	mg/kg	100	120	15	30%	Pass	
TRH >C34-C40	M21-Oc24733	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
Pentachlorophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M21-Oc24733	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	M21-Oc24733	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M21-Oc24733	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M21-Oc24733	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M21-Oc24733	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M21-Oc24733	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M21-Oc24733	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Oc24740	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	M21-Oc24740	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Oc24740	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M21-Oc24740	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M21-Oc24740	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M21-Oc24740	CP	mg/kg	< 0.3	< 0.3	<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
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
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
John Nguyen	Senior Analyst-Metal (NSW)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
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.

Ecoteam
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Lismore
NSW 2480

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Lise Bolton**

Report **829779-W**
Project name Rouse St Tenterfield DSI
Project ID 21299
Received Date Oct 06, 2021

Client Sample ID			**TB**	**DRAIN**	**GW1A**	**GW1B**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Oc08669**	**S21-Oc08670**	**S21-Oc08671**	**S21-Oc08672**
Date Sampled			**Sep 30, 2021**	**Sep 30, 2021**	**Sep 30, 2021**	**Sep 30, 2021**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	113	115	113	113
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			TB	DRAIN	GW1A	GW1B
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Oc08669	S21-Oc08670	S21-Oc08671	S21-Oc08672
Date Sampled			Sep 30, 2021	Sep 30, 2021	Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	71	68	57	78
p-Terphenyl-d14 (surr.)	1	%	134	126	117	[Q09]INT
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
Total cresols*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Phenol-d6 (surr.)	1	%	28	26	22	27
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	< 0.001	0.003	0.003
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	0.001	< 0.001	0.005
Copper	0.001	mg/L	< 0.001	0.005	0.001	0.002
Lead	0.001	mg/L	< 0.001	0.003	0.028	0.047
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	0.001	0.002
Zinc	0.005	mg/L	< 0.005	0.072	0.021	0.032

Client Sample ID			GW2A	R1
Sample Matrix			Water	Water
Eurofins Sample No.			S21-Oc08673	S21-Oc08674
Date Sampled			Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	115	114
Total Recoverable Hydrocarbons				
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	74	72
p-Terphenyl-d14 (surr.)	1	%	142	132
Phenols (Halogenated)				
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01

Client Sample ID			GW2A	R1
Sample Matrix			Water	Water
Eurofins Sample No.			S21-Oc08673	S21-Oc08674
Date Sampled			Sep 30, 2021	Sep 30, 2021
Test/Reference	LOR	Unit		
Phenols (Halogenated)				
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01
Phenols (non-Halogenated)				
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006
Total cresols*	0.01	mg/L	< 0.01	< 0.01
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003
Phenol-d6 (surr.)	1	%	29	25
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1
Heavy Metals				
Arsenic	0.001	mg/L	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	0.002
Lead	0.001	mg/L	0.001	0.003
Mercury	0.0001	mg/L	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001
Zinc	0.005	mg/L	0.005	0.007

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
BTEX	Sydney	Oct 06, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Oct 06, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 06, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (Halogenated)	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Oct 07, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Oct 07, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

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Company Name: Ecoteam
Address: 13 Ewing Street
Lismore
NSW 2480

Project Name: Rouse St Tenterfield DSI
Project ID: 21299

Order No.:
Report #: 829779
Phone: 0428 215 124
Fax:

Received: Oct 6, 2021 8:15 AM
Due: Oct 7, 2021
Priority: 1 Day
Contact Name: Lise Bolton

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254						
Sydney Laboratory - NATA # 1261 Site # 18217						X
Brisbane Laboratory - NATA # 1261 Site # 20794						
Mayfield Laboratory - NATA # 1261 Site # 25079						
Perth Laboratory - NATA # 2377 Site # 2370						
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	TB	Sep 30, 2021		Water	S21-Oc08669	X
2	DRAIN	Sep 30, 2021		Water	S21-Oc08670	X
3	GW1A	Sep 30, 2021		Water	S21-Oc08671	X
4	GW1B	Sep 30, 2021		Water	S21-Oc08672	X
5	GW2A	Sep 30, 2021		Water	S21-Oc08673	X
6	R1	Sep 30, 2021		Water	S21-Oc08674	X
Test Counts						6

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.

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
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
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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%

NOTE: pH duplicates are reported as a range not as RPD

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 where no positive PFAS results have been reported have been reviewed and no data was affected.

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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. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. 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							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
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	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	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	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
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							
BTEX							
Benzene	%	113			70-130	Pass	
Toluene	%	116			70-130	Pass	
Ethylbenzene	%	111			70-130	Pass	
m&p-Xylenes	%	114			70-130	Pass	
o-Xylene	%	115			70-130	Pass	
Xylenes - Total*	%	114			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	114			70-130	Pass	
TRH C10-C14	%	101			70-130	Pass	
Naphthalene	%	116			70-130	Pass	
TRH C6-C10	%	113			70-130	Pass	
TRH >C10-C16	%	101			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	102			70-130	Pass	
Acenaphthylene	%	103			70-130	Pass	
Anthracene	%	121			70-130	Pass	
Benz(a)anthracene	%	112			70-130	Pass	
Benzo(a)pyrene	%	118			70-130	Pass	
Benzo(b&j)fluoranthene	%	122			70-130	Pass	
Benzo(g.h.i)perylene	%	104			70-130	Pass	
Benzo(k)fluoranthene	%	124			70-130	Pass	
Chrysene	%	120			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	122			70-130	Pass	
Fluorene	%	117			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	112			70-130	Pass	
Naphthalene	%	95			70-130	Pass	
Phenanthrene	%	123			70-130	Pass	
Pyrene	%	126			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	90			25-140	Pass	
2.4-Dichlorophenol	%	98			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.5-Trichlorophenol	%	117			25-140	Pass	
2.4.6-Trichlorophenol	%	116			25-140	Pass	
2.6-Dichlorophenol	%	115			25-140	Pass	
4-Chloro-3-methylphenol	%	92			25-140	Pass	
Pentachlorophenol	%	110			25-140	Pass	
Tetrachlorophenols - Total	%	112			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	130			25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	123			25-140	Pass	
2-Nitrophenol	%	107			25-140	Pass	
2.4-Dimethylphenol	%	97			25-140	Pass	
2.4-Dinitrophenol	%	98			25-140	Pass	
2-Methylphenol (o-Cresol)	%	68			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	60			25-140	Pass	
4-Nitrophenol	%	31			25-140	Pass	
Dinoseb	%	127			25-140	Pass	
Phenol	%	31			25-140	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	95			80-120	Pass	
Cadmium	%	95			80-120	Pass	
Chromium	%	91			80-120	Pass	
Copper	%	91			80-120	Pass	
Lead	%	87			80-120	Pass	
Mercury	%	81			80-120	Pass	
Nickel	%	91			80-120	Pass	
Zinc	%	89			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Se60266	NCP	%	109			70-130	Pass	
Toluene	S21-Se60266	NCP	%	109			70-130	Pass	
Ethylbenzene	S21-Se60266	NCP	%	103			70-130	Pass	
m&p-Xylenes	S21-Se60266	NCP	%	107			70-130	Pass	
o-Xylene	S21-Se60266	NCP	%	108			70-130	Pass	
Xylenes - Total*	S21-Se60266	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Se60266	NCP	%	109			70-130	Pass	
Naphthalene	S21-Se60266	NCP	%	110			70-130	Pass	
TRH C6-C10	S21-Se60266	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Se62138	NCP	%	104			75-125	Pass	
Cadmium	S21-Se62138	NCP	%	84			75-125	Pass	
Chromium	S21-Se62138	NCP	%	88			75-125	Pass	
Copper	S21-Se58241	NCP	%	82			75-125	Pass	
Lead	S21-Se62138	NCP	%	84			75-125	Pass	
Mercury	S21-Se62138	NCP	%	90			75-125	Pass	
Nickel	S21-Se62138	NCP	%	80			75-125	Pass	
Zinc	S21-Se58241	NCP	%	88			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	S21-Oc08673	CP	%	102			70-130	Pass	
TRH >C10-C16	S21-Oc08673	CP	%	102			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Oc04272	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Oc04272	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Oc04272	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Oc04272	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Naphthalene	S21-Oc04272	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-Oc04272	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S21-Oc08670	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C10-C16	S21-Oc08670	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S21-Oc08670	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S21-Oc08674	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S21-Oc08674	CP	mg/L	0.002	0.002	9.0	30%	Pass	
Lead	S21-Oc08674	CP	mg/L	0.003	0.003	10	30%	Pass	
Mercury	S21-Oc08674	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Oc08674	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S21-Oc08674	CP	mg/L	0.007	0.007	8.0	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
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Emma Beesley	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

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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CERTIFICATE OF ANALYSIS 279716

Client Details

Client	Ecoteam
Attention	Robyn Mirigliani
Address	13 Ewing Street, Lismore, NSW, 2480

Sample Details

Your Reference	**Tenterfield DSI - 21299**
Number of Samples	2 Soil, 1 Water
Date samples received	06/10/2021
Date completed instructions received	06/10/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	13/10/2021
Date of Issue	12/10/2021

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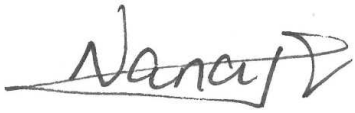
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Hannah Nguyen, Metals Supervisor
Josh Williams, LC Supervisor
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	11/10/2021	11/10/2021
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<3	<3
Surrogate aaa-Trifluorotoluene	%	116	115

svTRH (C10-C40) in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	09/10/2021	09/10/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	210	<100
TRH C_{29} - C_{36}	mg/kg	370	<100
Total +ve TRH (C10-C36)	mg/kg	580	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	510	<100
TRH >C_{34} -C_{40}	mg/kg	180	<100
Total +ve TRH (>C10-C40)	mg/kg	700	<50
Surrogate o-Terphenyl	%	95	98

PAHs in Soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date extracted	-	07/10/2021	07/10/2021
Date analysed	-	07/10/2021	07/10/2021
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	107	114

Acid Extractable metals in soil			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	08/10/2021	08/10/2021
Date analysed	-	08/10/2021	08/10/2021
Arsenic	mg/kg	<4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	7	17
Copper	mg/kg	12	9
Lead	mg/kg	170	9
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	3	8
Zinc	mg/kg	69	52

Misc Soil - Inorg			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	07/10/2021	07/10/2021
Date analysed	-	07/10/2021	07/10/2021
Total Phenolics (as Phenol)	mg/kg	<5	<5

Moisture			
Our Reference		279716-1	279716-2
Your Reference	UNITS	3-0.1B	8-B
Date Sampled		30/09/2021	29/09/2021
Type of sample		Soil	Soil
Date prepared	-	07/10/2021	07/10/2021
Date analysed	-	08/10/2021	08/10/2021
Moisture	%	6.9	5.7

vTRH(C6-C10)/BTEXN in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	08/10/2021
Date analysed	-	11/10/2021
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	104
Surrogate toluene-d8	%	104
Surrogate 4-BFB	%	92

svTRH (C10-C40) in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	08/10/2021
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	<50
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	<50
Surrogate o-Terphenyl	%	86

PAHs in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	07/10/2021
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b,j+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Benzo(a)pyrene TEQ	µg/L	<5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96

Total Phenolics in Water		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date extracted	-	07/10/2021
Date analysed	-	07/10/2021
Total Phenolics (as Phenol)	mg/L	<0.05

HM in water - total		
Our Reference		279716-3
Your Reference	UNITS	GW2B
Date Sampled		30/09/2021
Type of sample		Water
Date prepared	-	07/10/2021
Date analysed	-	07/10/2021
Arsenic-Total	µg/L	<1
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	<1
Copper-Total	µg/L	<1
Lead-Total	µg/L	7
Mercury-Total	µg/L	<0.05
Nickel-Total	µg/L	<1
Zinc-Total	µg/L	8

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.

Method ID	Methodology Summary
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			11/10/2021	1	11/10/2021	11/10/2021		11/10/2021	11/10/2021
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	119	122
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	119	122
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	124	128
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	117	121
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	119	121
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	118	119
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	125	126
naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	113	1	116	114	2	114	107

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			09/10/2021	1	09/10/2021	09/10/2021		09/10/2021	09/10/2021
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	124	108
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	210	200	5	115	118
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	370	370	0	132	115
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	124	108
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	510	510	0	115	118
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	180	190	5	132	115
Surrogate o-Terphenyl	%		Org-020	102	1	95	96	1	127	98

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date extracted	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Date analysed	-			07/10/2021	1	07/10/2021	07/10/2021		07/10/2021	07/10/2021
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	116	109
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	115	105
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	114	102
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	130	122
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	121	110
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	123	111
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	87	87
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	122	124
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	115	1	107	114	6	120	107

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	279716-2
Date prepared	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	08/10/2021
Date analysed	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	08/10/2021
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	111	92
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	114	91
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	120	96
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	103
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	117	91
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	100	107
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	115	92
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	85

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			08/10/2021	[NT]	[NT]	[NT]	[NT]	08/10/2021	[NT]
Date analysed	-			11/10/2021	[NT]	[NT]	[NT]	[NT]	11/10/2021	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	119	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	127	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	119	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate toluene-d8	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate 4-BFB	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	119	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	104	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
Surrogate o-Terphenyl	%		Org-020	82	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Naphthalene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Acenaphthylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	77	[NT]
Fluorene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Phenanthrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: Total Phenolics in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: HM in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Date analysed	-			07/10/2021	[NT]	[NT]	[NT]	[NT]	07/10/2021	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Copper-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Lead-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	[NT]	[NT]	[NT]	[NT]	105	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix L

Gas Detector Calibration Report

PID Calibration Certificate

Instrument **PhoCheck Tiger**
Serial No. **T-111084**

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93ppm Isobutylene	NIST	BR129		93ppm

Calibrated by: **Braeden Curtis**

Calibration date: **24/09/2021**

Next calibration due: **24/10/2021**

Appendix M

Groundwater Sampling Logs

Water Quality Sampling Field Sheet

ecoteam Groundwater Sampling Log		Weather/ conditions: Overcaste, some rain	
Project name:	Rouse st, Tenterfield	Date Commenced:	29/9/21
Project No:	21299	Date Completed:	30/9/21
Location:	Tenterfield	Supervisor:	Lise Bolton

Sample Information			
Well ID	GW1	Well Depth:	2.58
Sample Device:	Plastic bailer	Well diameter:	50 mm
Water Meter:	Sma-troll	Standing water level:	1.1 m
Screen length:	1-2m (0.5-2.5)	Effective volume:	3L
Casing type:	PVC	Purge volume:	9L

Site Conditions

Time	pH	EC	DO	Temp	ORP	Volume
5:10	7.59	1,189.1	7.28	19.27	1,1619	0L
8:44	7.44	1,118.3	37.63	12.21	1,228	3L
2:18	7.18	1,015.1	62.20	17.41	1,228	6L
4:46	7.25	1,435	73.33	16.93	1,215	9L
						SAMPLED

Notes: Some murky water at bottom.
Very low recharge.

Groundwater Sampling Field Sheet

Water Quality Sampling Field Sheet

ecoteam Groundwater Sampling Log		Weather/ conditions: Overcaste, some rain	
Project name:	Rouse St, Tenterfield	Date Commenced:	30/9/21
Project No:	21297	Date Completed:	30/9/21
Location:	Tenterfield	Supervisor:	Luke Botha.

Sample Information			
Well ID	GW2	Well Depth:	5.5m
Sample Device:	Plastic bailer	Well diameter:	50 mm
Water Meter:	Smartroll	Standing water level:	1.70
Screen length:	2.3m (2.5-5.5)	Effective volume:	7L
Casing type:	PVC	Purge volume:	21L

Site Conditions						
Time	pH	EC	DO	Temp	ORP	Volume
8:40	7.57	9.92	64.63	16.52	1,251	0L
8:50	7.57	1,023	49.80	16.84	1,249	5L
2:11	7.32	985.68	71.51	16.31	1,229	10L
2:17	7.39	1,014.7	75.51	16.71	1,235	16L
3:00	7.17	974.9	85.25	16.89	1,224	18L
4:30	7.20	986.3	67.50	16.31	1.228	21L
						SAMPLES

Notes:

Groundwater Sampling Field Sheet