

Contamination Assessment

52 Sinclair Street, Goulburn, New South Wales

Prepared for: Woodlands Ridge Poultry Pty Ltd
EP1063.001 5 June 2019

APPROVED COMPANY ISO 9001 Quality Management Systems QMS Certification Services

APPROVED COMPANY AS/NZS 4801 OH&S Management Systems QMS Certification Services

APPROVED COMPANY ISO 14001 Environmental Management Systems QMS Certification Services

EP RISK

Contamination Assessment

52 Sinclair Street, Goulburn, New South Wales

Woodlands Ridge Poultry Pty Ltd
c/- KDC Pty Ltd
Suite 2B, 125 Bull Street,
Newcastle West NSW 2302

5 June 2019

Our Ref: EP1063.001

LIMITATIONS

This Contamination Assessment was conducted on the behalf of Woodlands Ridge Poultry Pty Ltd for the purpose/s stated in **Section 1**.

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It is not possible in a Contamination Assessment to present all data, which could be of interest to all readers of this report. Readers are referred to any referenced investigation reports for further data.

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Executive Summary

This report presents the findings of a PSI undertaken at a site located at 52 Sinclair, Street, Goulburn, NSW. The Site comprises a large single lot approximately 8.3 hectares ('ha') in area. KDC Pty Ltd ('KDC') advised the Site is proposed to be developed for mixed use, comprising a cold storage and distribution centre, poultry processing plant, child care facility and other associated infrastructure.

The site history review indicates the current proprietor of the Site has been identified as Mr Edouard John Wehbe and Mrs Lauren Mardi Wehbe with the original title to the land created in 1839. The surrounding land has primarily comprised residential/rural land with some possible commercial use to the north along Sydney Road. The Site has been developed recently for an industrial subdivision and hence contains two internal access roads, it is understood the subdivision was not registered, and the site has remained vacant.

The lithology at the Site mostly comprised a thin topsoil layer underlain by a clayey sand subsoil and sandy clay residual soil. The origin of the soil onsite is considered mostly residual with some colluvial soils present at the base of the slopes. The residual soil is a result of the weathering of the natural sedimentary rock.

The results of the soil analytical testing reported the concentrations of contaminants of potential concern were below the assessment criteria in all locations.

Overall, based upon the results of this Assessment, and subject to the limitations of this report, EP Risk considers the Site presents a low risk of contamination under the proposed mixed-use scenario. EP Risk recommends an unexpected finds protocol is implemented during the development works.

Table of Contents

Executive Summary ii
1 Introduction 1
1.1 Overview 1
1.2 Objective and Scope 1
1.3 Site Identification 2
2 Methodology 3
3 Site Condition and Surrounding Environment 4
3.1 Current Site Use and Layout 4
3.2 Proposed Site Use 4
3.3 Surrounding Land Use 4
3.4 Topography and Drainage 4
3.5 Geology 5
3.6 Soil Landscapes 5
3.7 Natural Occurring Asbestos Potential 5
3.8 Hydrogeology 5
3.8.1 Licensed Groundwater Bore Information 5
3.8.2 Inferred Groundwater Flow Characteristics 5
3.8.3 Inferred Surface Water and Groundwater Connectivity 6
3.8.4 Groundwater Dependent Ecosystems 6
3.9 Acid Sulfate Soils 6
3.10 Mining Subsidence 6
3.11 Regulatory Searches 7
3.12 Licensed Activities Under the Protection of the Environment Operations Act 1997 8
3.13 Delicensed Activities Still Regulated by the NSW EPA 8
3.14 Former Licensed Activities under the POEO Act, now Surrendered 8
4 Site History 10
4.1 Review of Historical Aerial Photos 10
4.2 Historical Title Deed Search 11
4.3 Review of Historical Business Directories 11
4.4 Site History Summary 11
5 Preliminary Conceptual Site Model 12
5.1 Sources - Potential Contaminating Activities and Chemicals of Concern 12
5.2 Potentially Impacted Media 12
5.3 Sensitive Receptors 13
6 Sampling and Analysis 14
6.1 Data Quality Objectives 14
6.2 Data Quality Indicators 17
6.3 Sampling and Analysis Methodology 18
6.4 Analytical Testing 19
6.5 Field and Laboratory Quality Assurance and Quality Control (QA/QC) 19
7 Environmental Quality Criteria 22
8 Results 24
8.1 Soil Lithology 24
8.2 Qualitative Soil Vapour Screening 24
8.3 Soil Analytical Results 24
9 Site Characterisation 25
9.1 Potential Risk to Future Onsite Receptors? 25
9.2 Aesthetics 25
9.1 Sufficient Information 25
9.2 Is a DSI or RAP Required? 25
10 Refined Conceptual Site Model 26
10.1 Potentially Contaminating Activities 26
10.2 Potentially Affected Media 26
10.3 Potential Human and Ecological Receptors 26

10.4 Potential and Complete Exposure Pathways 26
11 Conclusions and Recommendations 28

List of Tables in Body of Report

Table 1 – Site Identification 2
Table 2 – Summary of GDE's Within 1 km of the Site 6
Table 3 – Regulatory Searches 7
Table 4 – Licensed Activities Under the POEO Act 8
Table 5 – Former licensed activities under the POEO Act, now surrendered 9
Table 6 – Historical Aerial Photograph Review 10
Table 7 – Contaminants of Potential Concern 12
Table 8 – DQO, Requirements and Indicators 17
Table 9 – Analytical Testing of Primary Samples 19
Table 10 – DQI Results Summary 19
Table 11 – Adopted Soil Criteria 23
Table 12 – General Soil Lithology 24
Table 13 – Potential Exposure Pathways 27

List of Attached Figures

Figure 1 Site Location
Figure 2 Soil Sampling Locations
Figure 3 Area 1 Exceedances
Figure 4 Area 2 Exceedances

List of Attached Tables

Table A1 Metals, OCPs, and OPPs
Table A2 TRH, BTEXN, PAH, PCBs, and Phenols
Table A3 Asbestos
Table A4 EIL Soil Classification Parameters
Table B1 Duplicate and Triplicate RPDs
Table B2 Rinsate
Table B3 Trip Blank and Trip Spike

List of Appendices

Appendix A Lotsearch Environmental Report (2018)
Appendix B Site Photographs
Appendix C Proposed Development Plans
Appendix D Historical Titles
Appendix E Soil Profile Logs
Appendix F Calibration Certificate
Appendix G NATA Laboratory Certificates

1 Introduction

1.1 Overview

EP Risk Management Pty Ltd ('EP Risk') was engaged by KDC Pty Ltd on behalf of Woodlands Ridge Poultry Pty Ltd ('Woodlands') to undertake a contamination assessment ('The Assessment') for a property located at 52 Sinclair Street, Goulburn, New South Wales ('NSW') ('the Site').

The Site is legally described as Lot 22 in Deposited Plan ('DP') 750050 and comprises a large single lot approximately 8.3 hectares ('ha') in area. A figure showing the site location is presented as **Figure 1**.

The Site is proposed to be developed for mixed use, comprising a cold storage and distribution centre, poultry processing plant, child care facility and other associated infrastructure ('Proposed Development') and is considered a State Significant Development ('SSD') under Schedule 1, Clauses 3 and 12 of *State Environmental Planning Policy (State and Regional Development) 2011*. The Assessment is a condition of the Planning Secretary's Environmental Assessment Requirements ('SEARs') issued by the Department of Planning & Environment on 25 July 2018.

1.2 Objective and Scope

The objectives of the Assessment are to provide:

- An assessment of the extent and nature of any contamination at the site.
- A conceptual site model examining the potential risks to human health and the environmental receptors in the vicinity of the site.

The scope of work completed to achieve those objectives included:

- Conduct a site visit to observe onsite and offsite conditions.
- Undertake a desktop review of publicly available historical information.
- Undertake a grid-based and targeted soil sampling program and submit selected samples to a National Association of Testing Authorities ('NATA') accredited laboratory for analysis of the identified chemicals of potential concern ('COPC').
- Prepare a report in accordance with the NSW Office of Environment and Heritage ('OEH') (2011) *Contaminated Sites, Guidelines for Consultants reporting on Contaminated Sites* and the National Environment Protection Council (2013), *National Environment Protection (Assessment of Site Contamination) Measure 1999* as amended April 2013 ('ASC NEPM 2013').

1.3 Site Identification

The Site Identification details are presented in **Table 1.**

Table 1 – Site Identification	
Item	**Description**
Site Address	52 Sinclair Street, Goulburn, New South Wales (**Figure 1**)
Legal Description	Lot 22 DP 750050
Site Area	8.3 ha
Municipality	Goulburn Mulwaree Council
Site Zoning	The Goulburn Mulwaree Local Environmental Plan ('LEP') 2009 identifies the land as **B6 – Enterprise Corridor, E3 – Environmental Management** and **RU6 – Transition**.

2 Methodology

The Assessment was conducted in general accordance with the following:

- ASC NEPM 2013.
- Australian Standard ('AS') AS4482.1-2005: *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds*.
- AS 4482.2-1999: *Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances.*
- Friebel, E & Nadebaum, P 2011, *Health Screening Levels for Petroleum Hydrocarbons in soil and Groundwater. Part 1: Technical development document, CRC CARE Technical Report no. 10*, CRC for Contamination Assessment and Remediation of the Environment ('CRC CARE'), Adelaide, Australia.
- Goulburn Mulwaree Council LEP (2009).
- Goulburn Mulwaree Council Development Control Plan ('DCP') (2009).
- NSW Environment Protection Authority ('EPA') (1995) *Sampling Design Guidelines*.
- NSW EPA (2017) *Guidelines for the NSW Auditor Scheme (3rd Edition)* ('NSW Auditor Guidelines').
- NSW OEH (2011) *Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites*.
- *State Environmental Planning Policy ('SEPP') 55 - Remediation of Land* ('SEPP 55').
- United State Environment Protection Agency ('USEPA') (2006) *Guidance on Systematic Planning Using the Data Quality Objectives Process, ref: EPA QA/G-4*.

3 Site Condition and Surrounding Environment

The majority of information provided in the following sections was obtained from Lotsearch Pty Ltd ('Lotsearch') Enviro Professional Report (2018). A copy of the Lotsearch (2018) report is attached as **Appendix A**.

3.1 Current Site Use and Layout

EP Risk undertook an inspection of the Site on 15 and 16 January 2019 comprising walkover and visual assessment. The general Site features and observations from the inspection are summarised below:

- The Site is entirely fenced with 2 m high chain mesh fencing along Common Road perimeter, and paddock fencing along the remaining boundary.
- An entry road from Common Street and an internal access road meet at a T-intersection in the central portion of the Site. It is understood the Site had previously been approved for industrial development and hence the internal roads were built for the subdivision however the development ha not been completed.
- A large dam/sedimentation pond in the south west portion of the Site.
- The remainder of the Site is unsealed and covered with grasses and scattered trees. A lightly dense woodland is located in the north western corner of the Site.
- A spoon drain is located in the south west portion collecting surface water runoff from the hill in the north west portion and diverting it to the sedimentation pond.

Photographs of important Site features and observations are attached as **Appendix B**.

3.2 Proposed Site Use

It is understood the Site is proposed to be developed for a Stage Significant mixed-use development comprising a cold storage and distribution centre, poultry processing plant, child care facility and other associated infrastructure. The Proposed Development plans are presented as **Appendix C**.

3.3 Surrounding Land Use

The Site is located within an area primarily zoned **Enterprise Corridor (B6)**. As of 15 January 2019, surrounding land uses comprised:

- North: A mix of rural residential and commercial land use zoned predominantly **Enterprise Corridor (B6)**.
- South: Rural properties zoned **Enterprise Corridor (B6)** and **Transition (RU6)**.
- East: Common Road adjacent, with rural properties zoned **Enterprise Corridor (B6)** and Goulburn Waste Management Facility zoned **Infrastructure (SP2)** beyond.
- West: Bushland with some houses zoned **Environmental Management (E3)** followed by Mulwaree River zoned **Public Recreation (RE1**).

3.4 Topography and Drainage

The Site is predominantly flat, with the north western portion of the Site is situated on the top of a hill which slopes south east towards the central portion of the Site. The elevation at the Site ranges from 680 m above Australian Height Datum ('mAHD') in the north western corner to 660 mAHD in the south east of the Site.

Rainfall is generally considered to infiltrate the vegetated areas of the Site and overland flow in the north western portion is considered to migrate to the dam in the south western portion via the spoon drain. Overland flow from the rest of the Site is considered to migrate to the dam via the onsite stormwater networks. The overflow from the dam is connected to an unnamed drainage gully to the south of the Site which transports surface water west to Mulwaree River, located approximately 850 m from the Site at its closest point.

3.5 Geology

Based on the information contained in the Lotsearch Report (2018), the Site is underlain by Palaeozoic aged Cookbundoon Sandstone, comprising quartzite, sandstone and conglomerate, of the Lambie Group. Two concealed thrust faults running north-east and north-north-east are identified on site. The two faults join approximately 100 m north of the Site.

3.6 Soil Landscapes

Based a search of the NSW OEH Soil Landscapes map undertaken by Lotsearch (2018), the soil landscape present at the Site is Bullamalita Soloths.

3.7 Natural Occurring Asbestos Potential

A search of the NSW Department of Industry, Resources & Energy undertaken by Lotsearch (2018) identified no naturally occurring asbestos potential within 1 km of the Site.

3.8 Hydrogeology

3.8.1 Licensed Groundwater Bore Information

A search of the NSW Department of Primary Industries – Office of Water / Water Administration Ministerial Corporation undertaken by Lotsearch (2018) indicated there are 47 registered groundwater bores with a 2 km radius of the Site. Of the 47 groundwater bores, 17 are registered as test/monitoring bores, 16 are registered for domestic purposes, 13 for stock/ irrigation purposes and six bores are registered for recreational purposes.

The closest groundwater bore, located 317 m to the north east of the Site, was installed to a depth of 72 metres below ground level (‘mBGL’), with a standing water level (‘SWL’) of 14.0 mBGL, the bore reported “good” salinity and a yield of 1.1 litres per second ('L/s’). The depths of the remaining groundwater bores ranged from 7.1 mBGL to 359.70 mBGL and reported SWLs ranged between 4.6 mBGL and 100 mBGL. Further details of the registered groundwater bore search are provided in the Lotsearch (2018) report provided as **Appendix A**.

3.8.2 Inferred Groundwater Flow Characteristics

Based upon the topography of the Site and surrounding land, and the observed standing water levels in the licensed bores, groundwater is considered likely to flow to the west, towards the Mulwaree River located approximately 850 m from the Site at its closest point. However, it should be noted that groundwater flow in fractured rock aquifers can be influenced by the direction and orientation of bedding planes and fractures and the direction of groundwater flow provided above is indicative only.

A review of the Hydrogeology Map of Australia revealed that fractured or fissured, extensive aquifers of low to moderate productivity are located at the Site. The licensed bore information also suggests that low permeability, fractured igneous and metamorphic rock aquifers are present in the area surrounding the Site.

Based on the CSIRO (2003) *A Guide to Regional Groundwater Flow in Fractured Rock Aquifers*, the hydraulic conductivity of the fractured crystalline aquifers is generally between 10^{-7} to 10^{-2} m/day and effective porosity of between 0.1 % to 1 %. Therefore, the average regional groundwater flow could be expected to be between 9 and 90 m/year[1].

3.8.3 Inferred Surface Water and Groundwater Connectivity

Based on the low hydraulic conductivity of the fractured or fissured aquifers onsite it is considered there is likely to be low connectivity between groundwater and nearby surface water bodies (Mulwaree River) due to the estimated travel time (years to decades). Groundwater springs were not observed onsite and based on the depth of groundwater encountered in the bores immediately to the west (18.3 m – 66.0 m) it is unlikely that groundwater springs (excluding perched springs) are present between the Site and Mulwaree River.

3.8.4 Groundwater Dependent Ecosystems

A search of the Bureau of Meteorology Groundwater Dependent Ecosystems Atlas ('BOM GDE's') undertaken by Lotsearch (2018) revealed that there are low to high potential terrestrial and aquatic GDE's within 1 km of the Site. A summary of the GDE's within 1 km of the Site are presented in **Table 2**.

Table 2 – Summary of GDE's Within 1 km of the Site

Type	GDE Potential	Geomorphology	Ecosystem Type	Distance from Site
Terrestrial	Moderate potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	Vegetation	405 m east
Aquatic	High Potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	River (Mulwaree River)	607 m west and north west
Terrestrial	Low Potential GDE	Upland Plains with separating strike-aligned hills, closed lake basins	Vegetation	910 m south west

Due to the direction of inferred groundwater flow likely to be to the west, it is considered that groundwater at the Site would flow towards the high potential aquatic GDE located within the Mulwaree River.

3.9 Acid Sulfate Soils

A search of the CSIRO Atlas of Australian Acid Sulfate Soils (Lotsearch, 2018) identified the Site to be located within an area of low probability occurrence (6-70%) of acid sulfate soils ('ASS').

3.10 Mining Subsidence

There are no Mining Subsidence Districts within 1 km of the Site (Lotsearch, 2018).

[1] Calculated as linear seepage velocity based on hydraulic gradient obtained from the licensed bores of 0.025

3.11 Regulatory Searches

A summary of the regulatory searches performed by Lotsearch (2018) are summarised in **Table 3**.

Table 3 – Regulatory Searches

Search	Result
SEPP Protected Areas	No SEPP Protected Areas have been identified at or within 1 km of the Site.
SEPP Major Developments	No SEPP Major Development Areas have been identified at or within 1 km of the Site.
SEPP Strategic Land Use Areas	No SEPP Strategic Land Use Areas have been identified at or within 1 km of the Site.
Heritage Items	Two State Heritage Items and 14 Local Heritage Items have been identified within 1km of the Site. The State Heritage Items include: • Goulburn Viaduct – 756 m west • Goulburn Correctional Centre Complex – 760 m north west The Local Heritage Items include: • Dwelling, Railway Gatehouse, Victorian and Gothic (1867) – 351 m north west. • 'The Potteries' – 352 m north. • Jewish Cemetery – 404 m south west. • Goulburn General Cemetery – 578 m north east. • Rocky Hill Memorial – 616 m south west. • Mortis Street Cemetery – 720 m north west. • Goulburn City Conservation Area – 720 m west. • Goulburn Gaol – 759 m north west. • Railway Viaduct – 771 m west. • St Saviours Cemetery – 885 m north. • Dwellings, Georgian – 925 m north west. • Goulburn North Public School - 934 m north west. • Dwelling, Southern Star Hotel, Two Story, Coach House – 943 m west. • Dwelling, Cottage – 971 m west.
Contaminated Sites Notified to the NSW EPA	As of 18 December 2018, the Site nor any surrounding properties were on the NSW EPA database for Contaminated Sites notified to the NSW EPA in accordance with the *Contaminated Land Management Act 1997* ('CLM Act').
Contaminated Land: Records of Notice	No contaminated land records of notices have been identified at or within 1 km of the Site.
Former Gasworks	No former gasworks have been identified within 1 km of the Site.
NSW EPA per- and poly-fluoroalkyl substances ('PFAS') Investigation Program	No records of the NSW EPA PFAS Investigation Program were identified within 1 km of the Site.
Waste Management Facilities	The Goulburn Waste Management Facility was identified to be approximately 304 m south east of the Site[2].

[2] Based on review of current aerial photography and inspection of the Site and surrounding land, the active landfill cells are located approximately 500 m east of the Site and considered unlikely the waste management facility would significantly impact on the Site.

Table 3 – Regulatory Searches	
Search	**Result**
Underground petroleum storage system ('UPSS') Sensitive Zones	The western portion of the Site is located within an UPSS regulated sensitive zone.

3.12 Licensed Activities Under the Protection of the Environment Operations Act 1997

A summary of the NSW EPA licensed activities under the *Protection of the Environment Operations Act 1997* ('POEO Act') being undertaken within 1 km of the Site (Lotsearch 2018) is provided in **Table 4**.

Table 4 – Licensed Activities Under the POEO Act

EPL[3]	Organisation	Activity	Distance and Direction from Site
20724	A.J & B.M Wybrow Pty Ltd	Non-thermal treatment of general waste Recovery of general waste Waste storage – other types of waste	22 m west
6780	Goulburn Mulwaree Council	Waste disposal by application to land	304 m south east
13421	John Holland Rail Pty Ltd	Railway systems activities	353 m north west
3142	Australian Rail Track Corporation Limited	Railway systems activities	353 m north west
1742	Goulburn Mulwaree Council	Sewage treatment processing by small plants	998 m north

It is considered unlikely any of the licensed activities undertaken at surrounding properties would have impacted the Site, based upon the separation distance or the nature of these activities[2]. Further review identified A.J & B.M Wybrow Pty Ltd operates as Rocky Hill Sand & Soil in Hetherington Street, Goulburn and provides soil, mulch, compost, rocks/aggregates and landscaping supplies. Based on the nature of this activity and the property is located on the down-gradient side of the western hill it is considered unlikely to significantly impact on the Site.

3.13 Delicensed Activities Still Regulated by the NSW EPA

Based on a search of the Delicensed Activities Still Regulated by the NSW EPA undertaken by Lotsearch (2018), no delicensed activities still regulated by the NSW EPA have been identified within 1 km of the Site.

3.14 Former Licensed Activities under the POEO Act, now Surrendered

Based on a search of the NSW EPA Database undertaken by Lotsearch (2018), a summary of the Former licensed activities under the POEO Act, now surrendered identified within 1 km of the Site is provided in **Table 5.**

[3] EPL – environment protection license.

Table 5 – Former licensed activities under the POEO Act, now surrendered				
Licence No.	**Organisation**	**Location**	**Activity**	**Distance from Site**
4653	Luhrmann Environment Management Pty Ltd	Waterways throughout NSW	Other activities/non-scheduled activity – Application of herbicides	43 m
4838	Robert Orchard			
6630	Sydney Weed and Pest Management Pty Ltd			
20036	Christopher James Eveston	12 Common Street, Goulburn	Recovery of general waste	312 m north
20036	Christopher James Eveston	12 Common Street, Goulburn	Waste storage – other types of waste	312 m north
12018	Goulburn Recycling (Aust) Pty Ltd	12 Common Street, Goulburn	Inert waste landfilling	352 m north

It is considered unlikely any of the former licensed activities undertaken at surrounding properties would have impacted the Site, based upon the separation distance or the nature of these activities.

4 Site History

The Site history sources utilised for the Assessment include:

- Historical aerial photography.
- Historical title deed search.
- Historical business directory records.

4.1 Review of Historical Aerial Photos

Aerial photographs of the Site for the years: 1953, 1967, 1975, 1979, 1987 1991, 1997, 2006, 2014 and 2018 were reviewed, and a summary is provided in **Table 6**. Copies of photographs are contained within the Lotsearch report in **Appendix A**.

Table 6 – Historical Aerial Photograph Review

Year	Description
1953	**Site:** The Site is vacant and mostly clear of trees with the exception of a small dense woodland in the north western portion. **Surrounds:** The surrounding land is predominantly vacant with the exception of two rural dwellings to the south and north and a few residential dwellings further to the north along Sydney Road. The lad to the west is covered with dense woodland.
1967	**Site:** The Site remains relatively unchanged. **Surrounds:** Further residential dwellings have been constructed to the north along Sydney Road.
1975	**Site:** The Site remains relatively unchanged. **Surrounds:** A residential dwelling is visible in the woodland to the west of the Site.
1979	**Site:** The woodland in the north western portion appears to have been thinned. **Surrounds:** No significant change has occurred
1987	**Site:** A small dam has been constructed in the south western portion. **Surrounds:** Further commercial developments to the north along Sydney Road and a property to the south west has been cleared.
1991	**Site:** The dam construction has been completed. **Surrounds:** Further development along Sydney Road to the north of the Site, and the woodland to the west of the Site appeared to have been thinned. The sand and soil facility to the south west of the Site appears to be in operation.
1997	**Site:** The Site remains relatively unchanged. **Surrounds:** Further commercial and residential development along Sydney Road has occurred.
2006	**Site:** Site remains relatively unchanged. **Surrounds:** Further commercial and residential development along both sides of Sydney Road has occurred.
2012	**Site:** The Site is in its current layout, with the two internal roads constructed and the dam extended. **Surrounds:** No significant change has occurred.
2014	**Site:** The Site remains relatively unchanged. **Surrounds:** No significant change has occurred.
2018	**Site:** The Site remains relatively unchanged. **Surrounds:** No significant change has occurred.

4.2 Historical Title Deed Search

A review of historical title information for the Site indicates the Site has changed proprietors 11 times since its creation in 1839, with proprietors of note including Ramz Group Pty Ltd and Hashkel Pty Limited[4]. The Site currently belongs to a Mr Edouard John Wehbe and Mrs Lauren Mardi Wehbe who have been the proprietors since 2016. The historical title search information is attached as **Appendix D**.

4.3 Review of Historical Business Directories

Based upon a review of 1950, 1961, 1970 and 1982 historical business directories provided by Lotsearch (2018), there were no business records registered to the Site.

There have been no historical dry-cleaning businesses or service stations located at or within 1 km of the Site.

Two motor garages and engineer businesses were recorded 262 m north of the Site (along Sydney Road) in the 1970 business directories. It is considered not likely these businesses would have impacted the Site, based upon the separation distance and distance from the Site. Further information regarding the historical business directory searches is provided in the Lotsearch (2018) report attached as **Appendix A**.

4.4 Site History Summary

Based on a review of the available site history information, the current proprietor of the Site has been identified as Mr Edouard John Wehbe and Mrs Lauren Mardi Wehbe with the original title to the land created in 1839. The surrounding land has primarily comprised residential/rural land with some possible commercial use to the north along Sydney Road. The Site has been developed recently for an industrial subdivision and hence contains two internal access roads, it is understood the subdivision was not registered, and the Site has remained vacant.

[4] No information is available for these entities, with both companies proposed for deregistration and insolvency by ASIC.

5 Preliminary Conceptual Site Model

5.1 Sources - Potential Contaminating Activities and Chemicals of Concern

Based on the site inspection and review of historical records, the following activities have occurred at the Site which may have resulted in the potential for contamination. These activities are summarised as follows:

- The potential use of pesticides and herbicides at the Site.
- The potential importation of contaminated fill material for road and dam construction.
- Migration of off-site contamination from the Goulburn Waste Management Facility[5].

The COPC associated with the activities listed above are presented in **Table 7**.

Table 7 – Contaminants of Potential Concern

Sources - Historical Activity/Site Infrastructure	Area of Site	Evidence	COPC
Use of pesticides and herbicides	Entire Site	Site history	Organochlorine pesticides ('OCP')/ organophosphate pesticides ('OPP') and heavy metals.
Imported fill material	Road	Site history and inspection	Total recoverable hydrocarbons ('TRH')/ benzene; toluene; ethylbenzene; xylene; naphthalene ('BTEXN'), polycyclic aromatic hydrocarbons ('PAH')/phenols/ polychlorinated biphenyls ('PCB')/asbestos and heavy metals.
Nearby Waste Management Facility	Entire Site	Site history and inspection	TRH, BTEXN, PAH, Phenols, PCBs, OPPs, OCPs, asbestos, heavy metals.

5.2 Potentially Impacted Media

Based on the site inspection and review of historical records the media likely to have been impacted would be:

- Fill materials; and
- Underlying natural soils.

Due to the nature of the geology and the former historical uses of the Site, as discussed in Section 3 and 4 above and the depth to groundwater, discussed in Section 3, a groundwater assessment was not conducted as part of this investigation. However, it was noted if soil impacts were identified an additional groundwater assessment may be necessary.

[5] The Goulburn Waste Management Facility is considered to present a low risk of contamination to the Site based on an inspection of the Site and surrounding land indicating the active landfill cells are located approximately 500 m east of the Site.

5.3 Sensitive Receptors

Based on the site history and surround land use sensitive receptors identified at and near the Site are:

Current Sensitive Receptors

- Residents of surrounding residential properties (ASC NEPM 2013 HIL A and HSL A – residential with garden / accessible soil).
- Terrestrial flora and fauna at the Site and surrounding residential properties (ASC NEPM 2013 EIL[6] and ESL[7] – residential, parkland and public open space).
- Ecosystems dependent upon Mulwaree River (ASC NEPM 2013 GILs[8] – Fresh Water).

Future Sensitive Receptors

- Future commercial and industrial workers at the Site (ASC NEPM 2013 HIL D and HSL D commercial/industrial).
- Future child care facility visitors (ASC NEPM 2013 HIL A and HSL A – residential with garden/accessible soil)[9].
- Future construction workers, sub-surface maintenance workers (ASC NEPM 2013 HIL D and HSL D).

[6] EIL – Ecological-based investigation level.
[7] ESL – Ecological-based screening level.
[8] GIL – Groundwater investigation level.
[9] The proposed child care facility and outdoor playground have been assessed as HIL A and HSL A due to the sensitive nature of the development.

6 Sampling and Analysis

6.1 Data Quality Objectives

To assess whether an appropriate sampling strategy was adopted for the Assessment, EP Risk adopted the data quality objectives ('DQOs') planning process as:

- Recommended in the ASC NEPM 2013.
- Required within the NSW EPA (2017), *Guidelines for the NSW Site Auditors Scheme (3rd edition)*.
- With consideration to technical details outlined in United State Protection Agency: *Guidance on Systematic Planning Using the Data Quality Objectives Process, ref: EPA QA/G-4* (US EPA, 2006) and AS 4482.1 (2005) *Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds*.

State the Problem

Woodlands intend to develop the Site into a mixed-use development under State Significant Development, the SEARs have identified the following specific matter for the Environmental Impact Statement ('EIS') to address:

- Contamination – including:
    - A detailed assessment of the extent and nature of any contamination at the site.
    - Conceptual site model detailing the potential risks to human health and the environmental receptors in the vicinity of the Site.

The Assessment is therefore required to assist in preparing the EIS for the mixed-use development.

Identify the Decision

To assess the soil conditions at the Site, the following decisions need to be addressed:

- Are there any unacceptable risks to likely future onsite receptors from impacted soil during or after development?
- Are there any aesthetic concerns in fill soil present at the site?
- Is there sufficient information to provide preliminary characterisation of the nature and extent of any contamination that may be present at the Site associated with the historical land use?
- Is there sufficient information to provide characterisation of the nature and extent of any contamination.
- Is a detailed site investigation ('DSI') or remediation required?

Identify Inputs into the Decision

The inputs required to make the decision include the following:

- Site history investigation.
- Environmental data as collected by sampling and analysis and site observations made during this investigation.

- Assessment criteria to be achieved on the Site as based on the intended land use and project objectives, as defined by the Tier 1 assessment criteria nominated in **Section 7.**
- Confirmation data generated by sampling and analysis are of an acceptable quality to allow reliable comparison to adopted assessment criteria as undertaken by assessment of quality assurance / quality control ('QA/QC') as per the data quality indicators ('DQIs') established in **Section 6.2**.

Define the Boundaries of the Study

The spatial boundaries of the assessment comprise Lot 22 in DP 750050. The vertical extent of the investigation has been set at 2.5 mBGL. The approximate boundaries are identified in **Figure 1**.

Due to the project objectives, seasonality was not be assessed as part of this investigation. Data was therefore representative of the timing and duration of the current investigation.

Develop a Decision Rule to Identify the Decision

Laboratory analytical data will be assessed against EPA endorsed criteria as identified in Section 7**.**

The decision rules adopted to answer the decisions identified above are summarised below:

1. ***Are there any unacceptable risks to likely future onsite receptors from impacted soils during development?***

   The nature and extent of soil impacts will be assessed, and soil analytical data were compared against Tier 1 EPA endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was be undertaken, if appropriate, to facilitate the decisions. The following statistical criteria was adopted with respect to soils: Either: the reported concentrations are all below the site criteria; Or: the average site concentration for each analyte must be below the adopted site criterion; no single analyte concentration exceeds 250% of the adopted site criterion; and the standard deviation of the results must be less than 50% of the site criteria.

   And: the 95% upper confidence limit ('UCL_{mean}') of the average concentration for each analyte (calculated for samples collected from consistent soil horizons, stratigraphy or material types) must be below the adopted site criterion. If the statistical criteria stated above are satisfied, and an assessment of risk indicates no unacceptable risks, the decision is No. Otherwise, the decision is Yes.

2. ***Are there any aesthetics issues in fill soils at the site?***

   If there are any unacceptable staining, odours or significant amounts of anthropogenic fill materials the answer to the decision is Yes. Otherwise, the answer to the decision is No.

3. ***Is there sufficient information to provide a preliminary assessment of any soil contamination that may be present at the Site, associated with the historical land use?***

   If the data set meets the established DQIs and QA/QC the decision is Yes, otherwise the decision is no.

4. ***Is a DSI or remediation required?***

   Is the answer to any of the above decisions Yes? If yes, a DSI or a remediation action plan ('RAP') will be required to be developed.

   If no, a DSI or RAP is not required.

Specify Acceptable Limits of Decision Errors

The acceptable limits were as follows:

I. Individual or 95% UCL_{mean} concentrations to be below the adopted criteria or background concentrations.

II. 95% of the data must satisfy the DQIs which were determined for completeness, representativeness, precision and accuracy of both field and laboratory data. Therefore, the limit on the decision error was 5% that a conclusive statement may be incorrect.

III. A comprehensive QA/QC program was undertaken including representative sampling and sampling at an appropriate density for the purpose of the investigation.

The acceptable limit of error for sampling techniques and laboratory analysis was defined by the DQIs as follows:

Data Representativeness

Expresses the accuracy and precision with which sample data represents an environmental condition. Data representativeness was achieved by the collection of samples at an appropriate pattern and density as well as consistent and repeatable sampling techniques and procedures.

Completeness

Refers to, the percentage of data that can be considered valid data. Sufficient data was required to enable an assessment of the Decision Rules.

Comparability

A qualitative comparison of the confidence with which one data set can be compared to another. This was achieved through consistent sampling and analytical testing and reporting techniques.

Precision

Is a measure of the reproducibility of on measurements under a given set of conditions. The relative percent difference ('RPD') has been adopted to assess the precision of data between duplicate sample pairs according to the following equation.

$$RPD\% = \frac{[\mathrm{Cp} - \mathrm{Cd}]}{\mathrm{Cp} + \mathrm{Cd}} \times 200$$

Where:
Cp = Primary sample
Cd = Duplicate Sample

An acceptance criterion of ±30% had been adopted for inorganic field duplicates and triplicates and ±50% for organic field duplicates and triplicates. However, it should be noted that exceedances of these criteria are common for heterogeneous soil or fill or for low analyte concentrations.

Accuracy

Is a measure of the bias in the analytical results and can often be attributed to: field contamination; insufficient preservation or sample preparation; or inappropriate analytical techniques. Accuracy of the analytical data was assessed by consideration of laboratory control samples and laboratory spikes.

Optimise the Design for Obtaining Data

A grid-based targeted sampling pattern along with a comprehensive suite of COPC was adopted for the Assessment to provide a characterisation of the nature and extent of soil contamination (if any).

Based on the expected historical land use of the Site being primarily greenfield/agricultural, a reduced saampling density of 30 locations was considered appropriate in assessing the contamination status of the Site. Five of the test pits were placed within the footprint of the proposed childcare facility in the south eastern corner of the Site, which meets the minimum sampling density for land in size up to 0.05 ha, in accordance with NSW EPA (1995) Sampling Design Guidelines.

6.2 Data Quality Indicators

The DQOs, requirements and indicators for the assessment are presented in **Table 8**.

Table 8 – DQO, Requirements and Indicators

DQO	Requirement	Data Quality Indicator
Precision		
Standard operating procedures appropriate and complied with	The sampling methods comply with industry standards and guidelines	Meet requirement
Intra-laboratory duplicates	1 per 20 samples	RPDs < 30% (inorganic) or RPDs < 50% (organic)
Inter-laboratory duplicates	1 per 20 samples	RPDs < 30% (inorganic) or RPDs < 50% (organic)
Laboratory duplicates	Minimum of 1 per batch per analyte	RPDs < 30% (inorganic) or RPDs < 50% (organic)
Accuracy		
Laboratory matrix spikes	1 per batch per volatile/semi-volatile analyte	Recoveries 50% to 150%
Laboratory surrogate spikes	1 per volatile/semi-volatile analyte sample (as appropriate)	Recoveries 70% to 130%
Laboratory control samples	At least 1 per batch per analyte tested for	Result < laboratory reporting limit
Representativeness		
Sampling methodology - preservation	Appropriate for the sample type and analytes	Meet requirement
Samples extracted and analysed within holding times	Specific to each analyte	Meet requirement
Field equipment calibration	All field equipment calibrated, and calibration records provided.	Meet requirement
Laboratory method blanks	At least 1 per batch per analyte tested for	Result < laboratory reporting limit
Rinsate	1 per lab batch for volatile analytes	Result < laboratory reporting limit
Comparability		
Sampling approach	Consistent for each sample	Meet requirement
Analysis methodology	Consistent methodology for each sample	Meet requirement

Table 8 – DQO, Requirements and Indicators		
DQO	**Requirement**	**Data Quality Indicator**
Handling conditions and sampler	Consistent for each sample	Meet requirement
Field observations and analytical	Field observations to support analytical results	Meet requirement
Consistent laboratory reporting limit	Consistent between primary and secondary laboratories	Meet requirement
Completeness		
Sampling staff	Consistent sampling staff used.	Meet requirement
Laboratory accreditation	NATA Accredited laboratory for methods used	Meet requirement
Accredited methods	NATA accredited methods used appropriate for each analyte.	Meet requirement
ASC NEPM 2013 lab methods	Lab methods consistent with the ASC NEPM 2013.	Meet requirement
Laboratory reporting limit	Laboratory reporting limit consistent and appropriate	Meet requirement
Consistent weather / field conditions	Consistent	Meet requirement
Chain of custody documentation	Appropriately completed	Meet requirement
Field sampling documentation	Appropriately completed	Meet requirement

6.3 Sampling and Analysis Methodology

Soil sampling was conducted as follows:

- Soil samples were collected from thirty test pit locations across the Site (TP01-TP30) advanced using a 5-tonne excavator to a maximum depth of 2.5 m BGL.
- Soil samples were generally collected from 0.1, 0.5, 1.0 and 2.0 mBGL and from all soil horizons (where present).
- Soil was logged for type, colour, texture, other characteristics and indications of contamination as presented in the bore logs attached as **Appendix E**.
- All sampling equipment was decontaminated with phosphate free detergent and a dedicated pair of nitrile gloves was used for each sample to prevent cross contamination.
- All samples were screened with a photoionisation detector ('PID') for the presence of volatile organic compounds ('VOC') and recorded on the bore logs (**Appendix E**). Calibration certificates are attached as **Appendix F**.
- Sufficient samples were collected and placed into laboratory prepared sampling containers with a unique sample ID added to the label on each container.
- The sample containers were preserved on ice immediately after sampling and during shipment to the laboratories. The laboratory chain of custody documentation was completed and accompanied the samples during shipment.

6.4 Analytical Testing

EP Risk used ALS Global as the primary laboratory, which is NATA registered for the required analysis. The laboratory analysis was undertaken in accordance with **Table 9**.

Table 9 – Analytical Testing of Primary Samples

Media	Sampling locations	Number of Analysis
Soil	30	• 8 Heavy Metals/OPP/OCP – 45 • TRH/BTEXN/PAH/Phenols/PCB – 15 • Asbestos w/w % – 5 • NEPM Screen for soil classification (iron, total organic carbon, cation exchange capacity, % clay and pH) – 3
QA/QC		
Rinsate		• 8 Heavy Metals/OCP/OPP/TRH/BTEXN/PAH/Phenols/PCB - 2
Trip blank and trip spike		• TRH C_6-C_{10}/BTEXN – 1
Duplicates and triplicates		• 8 Heavy Metals/OCP/OPP/TRH/BTEXN/PAH/Phenols/PCB – 6

Notes:
8 Heavy Metals – arsenic, cadmium, chromium, copper, mercury, lead, nickel, zinc.

6.5 Field and Laboratory Quality Assurance and Quality Control (QA/QC)

An assessment of the field and laboratory DQI results is presented in **Table 10**.

Table 10 – DQI Results Summary

Parameter	Requirement	Objective Met
Precision		
Standard operating procedures appropriate and complied with	The sampling methods comply with industry standards and guidelines.	Yes
Field duplicates (intra-laboratory duplicates)	• 1 per 20 samples. • RPDs < 30% (inorganic) or RPDs < 50% (organic)	Yes Yes
Field triplicates (inter-laboratory duplicates)	• 1 per 20 samples. • RPDs < 30% (inorganic) or RPDs < 50% (organic)	Yes Yes[10]
Laboratory duplicates	• Minimum of 1 per batch per analyte. • RPDs < 50%. • >10%, laboratory specified.	Yes[11] Yes Yes
Accuracy		
Laboratory matrix spikes	• 1 per batch per volatile/semi-volatile analyte. • Recoveries >70% to 130%.	Yes[12] Yes[13]

[10] One triplicate RPD reported an exceedance for lead (32%), however the exceedance was attributed to the small detection limit which can lend to larger RPD discrepancies and is not considered to impact on the outcome of the Assessment.
[11] ALS (laboratory report number ES1901421) reported no duplicate samples were analysed for the rinsate water samples, however it is not considered to impact on the outcome of the Assessment as all analytes were reported below the laboratory detection limit.
[12] ALS (laboratory report number ES1901421) reported no matrix spike samples were undertaken for the rinsate water samples, however it is considered not to impact on the outcome of the Assessment as all analytes were reported below the laboratory detection limit.
[13] Eurofins (laboratory report number 636604-S) reported the matrix spike recovery for arsenic was 128%, which is marginally outside the higher recovery target of 125%. However, this is considered not to impact on the outcomes of the Assessment as the laboratory attributed this result to matrix interference since the laboratory control sample returned an acceptable recovery.

Table 10 – DQI Results Summary

Parameter	Requirement	Objective Met
Laboratory surrogate spikes	• 1 per volatile/semi-volatile analyte sample (as appropriate). • Recoveries 40% to 130%.	Yes Yes[14]
Laboratory control samples	• At least 1 per batch for analyte tested. • 70-130%.	Yes Yes
Representativeness		
Sample collection – preservation	Appropriate for the sample type and analytes.	Yes
Field equipment calibration	All field equipment calibrated, and calibration records provided.	Yes
Decontamination procedures	All sampling equipment to be decontaminated between each sample.	Yes
Holding times	Samples extracted and analysed within laboratory prescribed holding times.	Yes
Trip blanks	• 1 per field batch for volatile analytes. • Result < laboratory reporting limit.	Yes Yes
Trip spikes	• 1 per field batch for volatile analytes. • Recoveries 70-130%.	Yes Yes
Rinsate	• 1 per field batch for volatile analytes. • Result < laboratory reporting limit.	Yes Yes
Laboratory method blanks	• At least 1 per batch per analyte tested for. • Result < laboratory reporting limit.	Yes Yes
Completeness		
Sample logs and field sheets	Provided	Yes
Chain of custody	Provided	Yes
Sample receipt acknowledgement	Provided	Yes
Laboratory reports	Provided	Yes
Comparability		
Sampling staff	Consistent sampling staff used.	Yes
Laboratory accreditation	NATA Accredited laboratory for methods used.	Yes
Accredited methods	NATA accredited methods used appropriate for each analyte.	Yes
ASC NEPM 2013 lab methods	Lab methods consistent with the ASC NEPM 2013.	Yes
Laboratory reporting limit consistent and appropriate	Meet requirement	Yes
Consistent weather / field conditions	Consistent	Yes

[14] One surrogate spike for 2.4.6-Tribromophenol recorded a surrogate recovery of 39.7 %, however this is considered not to impact on the outcome of the Assessment as the recovery was only marginally outside the lower recovery target of 40% and within laboratory acceptance targets.

On the basis of the information provided in **Table 10**, EP Risk considers the DQOs for the project have been met and an acceptable level of accuracy and precision was achieved in the soil sampling and analytical program, therefore the data is appropriate for the purposes of this assessment

7 Environmental Quality Criteria

For the purposes of assessing the results of analytical testing of soils at the Site, the following guidelines were considered:

- ASC NEPM 2013.
- NSW EPA Auditor Guidelines (2017).
- Friebel, E & Nadebaum, P 2011, *Health Screening Levels for Petroleum Hydrocarbons in soil and Groundwater. Part 1: Technical development document, CRC CARE Technical Report no. 10*, CRC CARE, Adelaide, Australia ('CRC Care 2011').

EP Risk has adopted the ASC NEPM 2013 Tier 1 Guidelines in accordance with NSW EPA Auditor Guidelines (2017). In accordance with the decision-making process for assessing urban redevelopment sites (Appendix A, NSW EPA, 2017), soil concentrations were compared against the following soil investigation levels ('SILs'):

Proposed mixed-use land use (comprising cold storage and distribution centre, poultry processing plant and other associated infrastructure)

- **Health-based Criteria for the proposed mixed-use land use (comprising cold storage and distribution centre, poultry processing plant and other associated infrastructure)**: ASC NEPM 2013 HILs and HSLs for commercial/industrial land use, such as shops, offices, factories and industrial sites, and the CRC Care 2011 HSLs for intrusive maintenance worker (shallow trench) and direct contact.
- **Ecological Criteria for the proposed mixed-use land use (comprising cold storage and distribution centre, poultry processing plant and other associated infrastructure)**: ASC NEPM 2013 EILs and ESLs for commercial and industrial land uses.
- **Management Limits**: ASC NEPM 2013 management limits are based upon the physical properties of petroleum hydrocarbons to form observable light non-aqueous phase liquid ('LNAPL'); create fire and explosion hazards or penetrate or damage underground services. The management limits for commercial and industrial land uses based on coarse soil have been adopted based on the soil types observed in the investigation.

Proposed child care land use

- **Health-based Criteria for the proposed child care land use**: ASC NEPM 2013 HILs and HSLs for residential land use with garden/accessible soil (also includes children's day care centre).
- **Ecological Criteria for the proposed child care land use**: ASC NEPM 2013 EILs and ESLs for urban residential areas and public open space.
- **Management Limits**: ASC NEPM 2013 management limits are based upon the physical properties of petroleum hydrocarbons to form LNAPL; create fire and explosion hazards or penetrate or damage underground services. The management limits for residential, parkland and public open space based on both coarse and fine soil have been adopted based on the soil types observed in the investigation.

Aesthetics

- **Aesthetics**: The consultant should also consider the need for remediation based on the 'aesthetic' contamination as outlined in Schedule B (1) of the ASC NEPM 2013 that states that *'there are no numeric Aesthetic Guidelines however site assessment requires balanced consideration of the quality, type and*

distribution of foreign material or odours in relation to the specific land use and its sensitivity'. Soil odour, discolouration and the presence of anthropogenic materials will need to be assessed during the assessment.

The adopted soil criteria for the Site are presented in **Table 11**.

Table 11 – Adopted Soil Criteria

Guidelines	COPC	Adopted Criteria
ASC NEPM 2013	Heavy metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB and asbestos	HIL D (commercial/industrial) and HIL A (residential land use with garden/accessible soil).
	Heavy metals, PAH and OCP	EIL (commercial and industrial and urban residential areas and public open space); < 2 m
	TRH	Management limits (commercial/industrial and residential, parkland and public open space); coarse soil
	TRH and BTEXN	Vapour intrusion HSL D and HSL A 0 – <1 m; sand. ESL (commercial and industrial and urban residential areas and public open space); coarse soil <2m.
CRC Care 2011		Intrusive maintenance worker (shallow trench). HSL D (commercial/industrial) and HSL A (residential – low density) direct contact.

The expected future land use at the Site is commercial/industrial therefore on the basis of the future land use, EP Risk has adopted the health and ecological-based criteria for a commercial/industrial land use setting. However, since a child care facility is proposed for the south eastern corner of the Site, EP Risk has adopted the low-density residential health and ecological-based criteria for this portion of the Site (as shown on **Figure 2**).

8 Results

8.1 Soil Lithology

The lithology at the Site mostly comprised a thin topsoil layer underlain by a clayey sand subsoil and sandy clay residual soil. The origin of the soil onsite is considered mostly residual with some colluvial soils present at the base of the slopes. The residual soil is a result of the weathering of the natural sedimentary rock.

A summary of the general soil lithology at the Site is provided in **Table 12**.

Table 12 – General Soil Lithology

Soil Type	Description
TOPSOIL	Silty SAND: Dark grey, dry, loose, fine sand, organic matter (rootlets). Generally encountered between 0.0-0.1 m BGL
NATURAL (residual)	Clayey SAND: Grey-light grey, dry, loose, fine sand. Generally encountered between 0.1-0.6 m BGL
NATURAL (residual)	Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff, fine sand. Generally encountered between 0.6-2.0 m BGL.
NATURAL (Rock)	SANDSTONE: Light grey-brown, dry, fine sand. Encountered in the eastern portion at depths ranging from 1.4 to 1.7 m BGL

Colluvial clayey sandy gravels were also observed in the northern portion of the site at the foot of the hillslope. Minor fill in the form of surface gravel inclusions were observed in the eastern portion of the Site adjacent to the road and are believed to be pavement gravels associated with the construction of the road. Trace amounts of anthropogenic waste such as wood, plastic and aluminium cans were observed at the surface at some locations however no fragments of asbestos containing materials were observed. There was no visual or olfactory evidence of contamination reported during sample collection. Soil bore logs are attached as **Appendix E**.

8.2 Qualitative Soil Vapour Screening

No signs of visual staining or odours were observed during sample collection and PID readings reported <1 parts per million (‘ppm‘) at all sampling locations.

8.3 Soil Analytical Results

The results of soil analytical testing are summarised below and contained in the analytical summary tables section at the rear of the report, the laboratory Certificates of Analysis are attached as **Appendix G**.

All heavy metal, OCP, OPP, TRH, BTEXN, PAH, PCB and phenol concentrations were reported below the laboratory reporting limit and/or the adopted assessment criteria. Asbestos was not detected in any of the soil samples analysed.

9 Site Characterisation

Based on the decision-making process for assessing residential redevelopment sites detailed in NSW EPA Auditor Guidelines (2017) and discussed in **Section 6.1**, the decisions required to be made are detailed below.

- Are there any unacceptable risks to likely future onsite receptors from impacted soil during or after development?
- Are there any aesthetic concerns in fill soil present at the Site?
- Is there sufficient information to provide preliminary characterisation of the nature and extent of any contamination that may be present at the Site that is associated with the historical land use?
- Is a DSI or RAP required?

9.1 Potential Risk to Future Onsite Receptors?

The soil analytical results reported no exceedances of health-based or ecological-based criteria.

9.2 Aesthetics

The Site was generally clear of anthropogenic material, with the exception of trace amounts of anthropogenic materials such as wood, plastic, aluminium cans were observed. Fill was not encountered at the Site apart from the constructed road and some minor amounts of gravel inclusions remaining from the construction of the road. There was no visual or olfactory evidence of hydrocarbon or other contamination.

9.1 Sufficient Information

Based on the outcome of the DQI and QA/QC assessment, it is considered sufficient data was collected of an adequate quality to enable the decision questions to be answered.

9.2 Is a DSI or RAP Required?

The site history review and soil sampling program identified a low risk of contamination in soil at the Site. Therefore, a DSI or remediation is not required.

10 Refined Conceptual Site Model

A conceptual site model ('CSM') has been developed based upon the information provided in the sections of this report.

10.1 Potentially Contaminating Activities

The following potentially contaminating activities have been undertaken at the Site as follows:

- Possible use of pesticides and herbicides at the Site.
- Imported fill material for road construction.
- Nearby Waste Management Facility.

10.2 Potentially Affected Media

Based on this assessment the potentially affected media at the Site was considered to be the soil.

10.3 Potential Human and Ecological Receptors

- Residents of surrounding residential properties.
- Terrestrial flora and fauna at the Site and surrounding residential properties.
- Ecosystems dependent upon Mulwaree River.
- Future commercial and industrial workers at the Site.
- Future childcare facility visitors.
- Future construction workers, sub-surface maintenance workers.

10.4 Potential and Complete Exposure Pathways

An analysis of the potential exposure pathways between the COPC and the identified human and ecological receptors are presented in **Table 13**.

Table 13 – Potential Exposure Pathways

Potential Sources	Media	Release Mechanism	Pathway	Residents of Surrounding residential properties.	Terrestrial Flora and Fauna at the Site and surrounding residential properties.	Ecosystems dependent on Mulwaree River	Future commercial industrial workers at the Site.	Future Child Care Facility visitors.	Future construction workers, sub-surface maintenance workers at the Site.
TRH, BTEXN, PAH, PCB, Phenols, OCP, OPP	Soil	Fugitive dust	Air – ingestion / inhalation	No	No	No	No	No	No
		Direct contact	Dermal contact	No	No	No	No	No	No
			Ingestion	No	No	No	No	No	No
		Bioaccumulation	Uptake by terrestrial flora and fauna	No	No	No	No	No	No

Note:

Yes Current potential

Yes Future potential

11 Conclusions and Recommendations

This report presents the findings of a contamination assessment undertaken at a property located at 52 Sinclair, Street, Goulburn, NSW. The Site comprises a large single lot approximately 8.3 ha in area.

The Site is proposed to be developed for mixed use, comprising a cold storage and distribution centre, poultry processing plant, child care facility and other associated infrastructureand is considered a SSD under Schedule 1, Clauses 3 and 12 of State Environmental Planning Policy (State and Regional Development) 2011. The Assessment is required as a condition of the SEARs.

The site history review indicates the current proprietor of the Site has been identified as Mr Edouard John Wehbe and Mrs Lauren Mardi Wehbe with the original title to the land created in 1839. The surrounding land has primarily comprised residential/rural land with some possible commercial use to the north along Sydney Road. The Site has been developed recently for an industrial subdivision and hence contains two internal access roads, it is understood the subdivision was not registered, and the site has remained vacant.

The lithology at the Site mostly comprised a thin topsoil layer underlain by a clayey sand subsoil and sandy clay residual soil. The origin of the soil onsite is considered mostly residual with some colluvial soils present at the base of the slopes.

The soil sampling program comprised the collection of samples from 30 test pits, five of which were located within the footprint of the proposed child care facility. The results of the soil analytical testing reported the potential contaminant concentrations were below the adopted assessment criteria in all locations.

Overall, based upon the results of this Assessment, and subject to the limitations of this report, EP Risk considers the Site presents a low risk of contamination under the proposed mixed-use scenario. EP Risk recommends an unexpected finds protocol is implemented during the development works.

Figures



Legend

Site Boundary

Contamination Assessment
Site Location
52 Sinclair Street, Goulburn, NSW

Job Number:	EP1063
Client:	Woodlands Ridge Poultry
Published Date:	07/02/2019
Drawn By:	NM
Reviewed By:	RC

Figure: **1**

Revision: **A**

N

0 200 400 600 800 m

Approximate Scale

EP RISK



Contamination Assessment
Site Layout and Soil Sampling Locations
52 Sinclair Street, Goulburn, NSW

Job Number:	EP1063
Client:	Woodlands Ridge Poultry Pty Ltd
Published Date:	13/02/2019
Drawn By:	NM
Reviewed By:	RC

Figure:	Revision:
2	A

EP RISK

Tables

			Residential Land Use Criteria - Proposed Child Care Facility (TP01-TP05)						Field ID	TP01_0.1	TP01_0.5	TP02_0.1	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
									Date	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, coarse/fine Soil	EPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, sand 0-1m	EPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Urban Res & Public Open Space (TOPSOIL/NATURAL-Clayey SAND/ NATURAL-Sandy CLAY)	NEPM 2013 Table 1B(6) ESLs for Urban Res, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Res A Soil							
Metals																
Arsenic	mg/kg	5				100		100	<5	<5	<5	<5	<5	8	<5
Cadmium	mg/kg	1						20	<1	<1	<1	<1	<1	<1	<1
Chromium (III+VI)	mg/kg	2				340/460/690			3	4	3	<2	4	14	<2
Copper	mg/kg	5				50/55/70		6000	<5	<5	<5	<5	<5	7	<5
Iron	%														
Lead	mg/kg	5				1100		300	5	<5	6	<5	6	7	<5
Mercury	mg/kg	0.1						40	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2				8/10/80		400	<2	<2	<2	<2	<2	<2	<2
Zinc	mg/kg	5				120/160/190		7400	<5	<5	8	<5	<5	<5	<5
Organochlorine Pesticides															
4,4-DDE	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin + Dieldrin	mg/kg	0.05						6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
chlordane	mg/kg	0.05						50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (cis)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (trans)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDD	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDT	mg/kg	0.2				180			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
DDT+DDE+DDD	mg/kg	0.05						240	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan	mg/kg	0.05						270	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulphate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.05						10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin ketone	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	mg/kg	0.05						6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	mg/kg	0.2						300	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Organophosphorous Pesticides															
Azinophos methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	0.05						160	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dichlorvos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Monocrotophos	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Prothiofos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pesticides															
Demeton-S-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			Field ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1	TP16_0.1
			Industrial/Commercial Land Use Criteria (TP06-TP30)																
			Date	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, coarse/fine Soil	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 0-1m	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Comm/Ind (TOPSOIL/NATURAL-Clayey SAND/ NATURAL-Sandy CLAY)	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil														
Metals																				
Arsenic	mg/kg	5				160		3000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	mg/kg	1						900	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (III+VI)	mg/kg	2				570/770/1100			4	<2	<2	3	9	10	6	4	3	8	4	10	4
Copper	mg/kg	5				65/75/95		240000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Iron	%																				
Lead	mg/kg	5				1,800		1500	9	5	11	6	8	5	8	6	<5	6	<5	6	6
Mercury	mg/kg	0.1						730	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2				10/15/140		6000	<2	<2	<2	<2	4	2	<2	<2	<2	<2	3	<2	<2
Zinc	mg/kg	5				150/200/260		400000	12	<5	<5	6	12	<5	7	7	<5	6	<5	5	<5
Organochlorine Pesticides																				
4,4-DDE	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin + Dieldrin	mg/kg	0.05						45	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
chlordane	mg/kg	0.05						530	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (cis)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (trans)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDD	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDT	mg/kg	0.2				640			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
DDT+DDE+DDD	mg/kg	0.05						3600	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulphate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.05						100	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin ketone	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	mg/kg	0.05						50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	mg/kg	0.2						2500	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Organophosphorous Pesticides																				
Azinophos methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dichlorvos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Monocrotophos	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Prothiofos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pesticides																				
Demeton-S-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			Industrial/Commercial Land Use Criteria (TP06-TP30)					Field ID	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5	TP19_0.1	TP20_0.1	TP20_0.5	TP21_0.1	TP22_0.1	TP22_0.5	TP23_0.1	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.5	TP26_0.1
								Date	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, coarse/fine Soil	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 0-1m	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Comm/Ind (TOPSOIL/NATURAL-Clayey SAND/ NATURAL-Sandy CLAY)	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																
Metals																								
Arsenic	mg/kg	5				160		3000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	mg/kg	1						900	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (III+VI)	mg/kg	2				570/770/1100			3	4	5	9	4	8	5	5	6	6	5	12	6	10	25	7
Copper	mg/kg	5				65/75/95		240000	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	15	<5
Iron	%																							
Lead	mg/kg	5				1,800		1500	<5	<5	7	<5	7	6	<5	6	8	<5	6	5	6	8	19	7
Mercury	mg/kg	0.1						730	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2				10/15/140		6000	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	9	<2
Zinc	mg/kg	5				150/200/260		400000	<5	<5	8	<5	6	<5	<5	<5	7	<5	6	<5	<5	6	15	5
Organochlorine Pesticides																								
4,4-DDE	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
a-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin + Dieldrin	mg/kg	0.05						45	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
b-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
chlordane	mg/kg	0.05						530	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (cis)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlordane (trans)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
d-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDD	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DDT	mg/kg	0.2				640			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
DDT+DDE+DDD	mg/kg	0.05						3600	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan I	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan II	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulphate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.05						100	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin ketone	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
g-BHC (Lindane)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	mg/kg	0.05						50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	mg/kg	0.2						2500	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Organophosphorous Pesticides																								
Azinophos methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dichlorvos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dimethoate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Malathion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Monocrotophos	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Prothiofos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pesticides																								
Demeton-S-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			Industrial/Commercial Land Use Criteria (TP06-TP30)						Field ID	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1	TP29_0.5	TP30_0.1
									Date	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, coarse/fine Soil	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 0-1m	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Comm/Ind (TOPSOIL/NATURAL-Clayey SAND/ NATURAL-Sandy CLAY)	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						
Metals															
Arsenic	mg/kg	5				160		3000	<5	<5	15	<5	18	<5	
Cadmium	mg/kg	1						900	<1	<1	<1	<1	<1	<1	
Chromium (III+VI)	mg/kg	2				570/770/1100			7	20	24	4	25	4	
Copper	mg/kg	5				65/75/95		240000	<5	12	15	<5	15	<5	
Iron	%														
Lead	mg/kg	5				1,800		1500	8	12	10	7	10	8	
Mercury	mg/kg	0.1						730	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nickel	mg/kg	2				10/15/140		6000	<2	10	3	<2	4	<2	
Zinc	mg/kg	5				150/200/260		400000	<5	12	10	6	11	5	
Organochlorine Pesticides															
4,4-DDE	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
a-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Aldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Aldrin + Dieldrin	mg/kg	0.05						45	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
b-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
chlordane	mg/kg	0.05						530	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Chlordane (cis)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Chlordane (trans)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
d-BHC	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
DDD	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
DDT	mg/kg	0.2				640			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
DDT+DDE+DDD	mg/kg	0.05						3600	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Dieldrin	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endosulfan	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endosulfan I	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endosulfan II	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endosulfan sulphate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endrin	mg/kg	0.05						100	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endrin aldehyde	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Endrin ketone	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
g-BHC (Lindane)	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Heptachlor	mg/kg	0.05						50	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Heptachlor epoxide	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Methoxychlor	mg/kg	0.2						2500	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Organophosphorous Pesticides															
Azinophos methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Bromophos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Carbophenothion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Chlorfenvinphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Chlorpyrifos	mg/kg	0.05						2000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Chlorpyrifos-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Diazinon	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Dichlorvos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Dimethoate	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Ethion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Fenthion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Malathion	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Methyl parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Monocrotophos	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Prothiofos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Pesticides															
Demeton-S-methyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Fenamiphos	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Parathion	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Pirimphos-ethyl	mg/kg	0.05							<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	

											Field ID	TP01_0.1	TP04_0.1
			Residential Land Use Criteria - Proposed Child Care Facility (TP01-TP05)								Date	15/01/2019	15/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, coarse/fine Soil	CRC Care Table A4 - Soil Screening Levels for direct contact - Low Density Residential	CRC Care Table A3 - Soil Screening Levels for direct contact - Intrusive Maintenance Worker (Shallow Trench 0-2 m sand)	CRC Care Table A4 - Soil Screening Levels for direct contact - Intrusive Maintenance Worker	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, sand 0-1m	NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Urban Res & Public Open Space	NEPM 2013 Table 1B(6) ESLs for Urban Res, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Res A Soil		
BTEX													
Benzene	mg/kg	0.2		100	77	1100	0.5	0.5		50/65		<0.2	<0.2
Toluene	mg/kg	0.5		14000		120000	160	220		85/105		<0.5	<0.5
Ethylbenzene	mg/kg	0.5		4500		85000	55			70/125		<0.5	<0.5
Xylene (m & p)	mg/kg	0.5										<0.5	<0.5
Xylene (o)	mg/kg	0.5										<0.5	<0.5
Xylene Total	mg/kg	0.5		12000		130000	40	60		105/45		<0.5	<0.5
Total BTEX	mg/kg	0.2										<0.2	<0.2
Phenols													
3&4-Methylphenol (m&p-cresol)	mg/kg	1										<1	<1
2,4,5-Trichlorophenol	mg/kg	0.5										<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5										<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5										<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5										<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5										<0.5	<0.5
2-Chlorophenol	mg/kg	0.5										<0.5	<0.5
2-Methylphenol	mg/kg	0.5										<0.5	<0.5
2-Nitrophenol	mg/kg	0.5										<0.5	<0.5
4-chloro-3-methylphenol	mg/kg	0.5										<0.5	<0.5
Pentachlorophenol	mg/kg	2									100	<2	<2
Phenol	mg/kg	0.5									3000	<0.5	<0.5
TRH													
C6-C10	mg/kg	10	700/800	4400		82000						<10	<10
C6-C10 (F1 minus BTEX)	mg/kg	10					45	70		180		<10	<10
C10-C16	mg/kg	50	1000	3300		62000						<50	<50
C10-C16 (F2 minus Naphthalene)	mg/kg	50					110	240		120		<50	<50
C16-C34	mg/kg	100	2500/3500	4500		85000				300/1300		<100	<100
C34-C40	mg/kg	100	10000	6300		120000				2800/5600		<100	<100
C10-C40 (Sum of total)	mg/kg	50										<50	<50
Halogenated Benzenes													
Hexachlorobenzene	mg/kg	0.05									10	<0.05	<0.05
PAH													
Acenaphthene	mg/kg	0.5										<0.5	<0.5
Acenaphthylene	mg/kg	0.5										<0.5	<0.5
Anthracene	mg/kg	0.5										<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5										<0.5	<0.5
Benzo(a) pyrene	mg/kg	0.5								0.7		<0.5	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5										<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5										<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5										<0.5	<0.5
Chrysene	mg/kg	0.5										<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5										<0.5	<0.5
Fluoranthene	mg/kg	0.5										<0.5	<0.5
Fluorene	mg/kg	0.5										<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5										<0.5	<0.5
Naphthalene	mg/kg	0.5		1400		29000	3		170			<0.5	<0.5
Phenanthrene	mg/kg	0.5										<0.5	<0.5
Pyrene	mg/kg	0.5										<0.5	<0.5
PAHs (Sum of total)	mg/kg	0.5									300	<0.5	<0.5
PCBs													
PCBs (Sum of total)	mg/kg	0.1									1	<0.1	<0.1
TPH													
C6-C9	mg/kg	10										<10	<10
C10-C14	mg/kg	50										<50	<50
C15-C28	mg/kg	100										<100	<100
C29-C36	mg/kg	100										<100	<100
+C10-C36 (Sum of total)	mg/kg	50										<50	<50

			Industrial/Commercial Land Use Criteria (TP06-TP30)									Field ID	TP07_0.1	TP09_0.1	TP11_0.1	TP13_0.1	TP14_0.1	TP16_0.1	TP18_0.1	TP20_0.1	TP22_0.1	TP23_0.1	TP25_0.1	TP27_0.1	TP29_0.1
												Date	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	15/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019	16/01/2019
	Unit	EQL	NEPM 2013 Table 1B(7) Management Limits Comm / Ind, coarse/fine Soil	CRC Care Table A4 - Soil Screening Levels for direct contact - Low Density Residential	CRC Care Table A3 - Soil Screening Levels for direct contact - Intrusive Maintenance Worker (Shallow Trench 0-2 m sand)	CRC Care Table A4 - Soil Screening Levels for direct contact - Intrusive Maintenance Worker	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-1m	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 1-2m	NEPM 2013 Table 1B(5) Site Specific EIL - Comm/Ind	NEPM 2013 Table 1B(6) ESLs for Comm/Ind, coarse/fine Soil 0-2m	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil													
BTEX																									
Benzene	mg/kg	0.2		430	77	1100	3	3		75/95			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	0.5		99000		120000				135			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	0.5		27000		85000				165/185			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	mg/kg	0.5		81000		130000	230			180/95			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	mg/kg	0.2											<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Phenols																									
3&4-Methylphenol (m&p-cresol)	mg/kg	1											<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dichlorophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-Dimethylphenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-Dichlorophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Nitrophenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chloro-3-methylphenol	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	mg/kg	2										660	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Phenol	mg/kg	0.5										240000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH																									
C6-C10	mg/kg	10	700/800	26000		82000							<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C6-C10 (F1 minus BTEX)	mg/kg	10					260	370		215			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C10-C16	mg/kg	50	1000	20000		62000							<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C10-C16 (F2 minus Naphthalene)	mg/kg	50								170			<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C16-C34	mg/kg	100	3500/5000	27000		85000				1700/2500			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C34-C40	mg/kg	100	10000	38000		120000				3300/6600			<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C10-C40 (Sum of total)	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Halogenated Benzenes																									
Hexachlorobenzene	mg/kg	0.05										80	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PAH																									
Acenaphthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz[a]anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a) pyrene	mg/kg	0.5								1.4			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5		11000		29000			370				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total)	mg/kg	0.5										4000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PCBs																									
PCBs (Sum of total)	mg/kg	0.1										7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH																									
C6-C9	mg/kg	10											<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C10-C14	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
C15-C28	mg/kg	100											<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29-C36	mg/kg	100											<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
+C10-C36 (Sum of total)	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

Table A3 - Asbestos

		Field ID	TP01_0.1 w/w %	TP19_0.1 w/w %	TP21_0.1 w/w %	TP25_0.1 w/w %	TP30_0.1 W/W%
		Date	15/01/2019	15/01/2019	16/01/2019	16/01/2019	16/01/2019
	Unit	EQL					
Asbestos							
Asbestos (Fines and Fibrous <7mm)	g	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Asbestos Containing Material	g	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos Containing Material (as 15% Asbestos in A	% (w/w)	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos from FA & AF in Soil	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibrous Asbestos >7mm	g	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Asbestos fibres	Detect		NO	NO	NO	NO	NO
weight of sample	g	0.01	466	494	566	550	475
Weight Used for % Calculation	kg	0.0001	0.466	0.494	0.566	0.550	0.475

Table A4 - EIL Soil Classification Parameters

Urban Residential			
Sample ID	TP02_0.1 EIL	TP02_0.5 EIL	TP20_1.0 EIL
Soil Type	TOPSOIL	NATURAL	NATURAL
Soil Description	Silty SAND	Clayey SAND	Sandy CLAY
CEC	1.8	2.2	7.2
% Clay	6	15	50
pH (CaCl)	4.5	5.1	4.4
Site Specific EILs			
As	100	100	100
DDT	180	180	180
Napthalene	170	170	170
Pb	1100	1100	1100
Cu	50	55	70
Ni	8	10	80
Cr_III	340	460	690
Zn	120	160	190

Commercial/Industrial			
sample ID	TP02_0.1 EIL	TP02_0.5 EIL	TP20_1.0 EIL
Soil Type	TOPSOIL	NATURAL	NATURAL
Soil Description	Silty SAND	Clayey SAND	Sandy CLAY
CEC	1.8	2.2	7.2
% Clay	6	15	50
pH (CaCl)	4.5	5.1	4.4
Site Specific EILs			
As	160	160	160
DDT	640	640	640
Napthalene	370	370	370
Pb	1800	1800	1800
Cu	65	75	95
Ni	10	15	140
Cr_III	570	770	1100
Zn	150	200	260

		Field ID	TP01_0.1	QC01	RPD %	QC02	RPD %	TP07_0.1	QC03	RPD %	QC04	RPD %	TP14_0.1	QC05	RPD %	QC06	RPD %
		Date	15/01/2019	15/01/2019		15/01/2019		15/01/2019	15/01/2019		15/01/2019		15/01/2019	15/01/2019		15/01/2019	
	Unit	EQL															
BTEX																	
Benzene	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Toluene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Ethylbenzene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Xylene (m & p)	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Xylene (o)	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Xylene Total	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Total BTEX	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Phenols																	
3&4-Methylphenol (m&p-cresol)	mg/kg	1	<1	<1	N/A	<1	N/A	<1	<1	N/A	<1	N/A	<1	<1	N/A	<1	N/A
2,4,5-Trichlorophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2,4,6-Trichlorophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2,4-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2,4-Dimethylphenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2,6-Dichlorophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2-Chlorophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2-Methylphenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
2-Nitrophenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
4-chloro-3-methylphenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Pentachlorophenol	mg/kg	2	<2	<2	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	<2	N/A
Phenol	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
TRH																	
C6-C10	mg/kg	10	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A
C6-C10 (F1 minus BTEX)	mg/kg	10	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A
C10-C16	mg/kg	50	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A
C10-C16 (F2 minus Naphthalene)	mg/kg	50	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A
C16-C34	mg/kg	100	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A
C34-C40	mg/kg	100	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A
C10-C40 (Sum of total)	mg/kg	50	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A
Halogenated Benzenes																	
Hexachlorobenzene	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Metals																	
Arsenic	mg/kg	5	<5	<5	N/A	<5	N/A	<5	<5	N/A	<5	N/A	<5	<5	N/A	<5	N/A
Cadmium	mg/kg	1	<1	<1	N/A	<1	N/A	<1	<1	N/A	<1	N/A	<1	<1	N/A	<1	N/A
Chromium (III+VI)	mg/kg	2	3	3	0%	3	0%	<2	2	N/A	2	N/A	4	3	29%	3	29%
Copper	mg/kg	5	<5	<5	N/A	<5	N/A	<5	<5	N/A	<5	N/A	<5	<5	N/A	<5	N/A
Lead	mg/kg	5	5	6	18%	5.6	11%	5	5	0%	6.3	23%	6	6	0%	8.3	32%
Mercury	mg/kg	0.1	<0.1	<0.1	N/A	<0.1	N/A	<0.1	<0.1	N/A	<0.1	N/A	<0.1	<0.1	N/A	<0.1	N/A
Nickel	mg/kg	2	<2	<2	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	<2	N/A
Zinc	mg/kg	5	<5	6	18%	5.5	10%	<5	5	N/A	6.5	26%	5	5	0%	5	0%
Organochlorine Pesticides																	
4,4-DDE	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
a-BHC	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Aldrin	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
b-BHC	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
chlordane	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Chlordane (cis)	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Chlordane (trans)	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
d-BHC	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
DDD	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
DDT	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
DDT+DDE+DDD	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Dieldrin	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endosulfan	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endosulfan I	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endosulfan II	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endosulfan sulphate	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endrin	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endrin aldehyde	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Endrin ketone	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
g-BHC (Lindane)	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Heptachlor	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Heptachlor epoxide	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Methoxychlor	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Organophosphorous Pesticides																	
Azinophos methyl	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Bromophos-ethyl	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Carbophenothion	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Chlorfenvinphos	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Chlorpyrifos	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Chlorpyrifos-methyl	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Diazinon	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Dichlorvos	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Dimethoate	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Ethion	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Fenthion	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Malathion	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Methyl parathion	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Monocrotophos	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Prothiofos	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
PAH																	
Acenaphthene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Acenaphthylene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Anthracene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Benz[a]anthracene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Benzo(a) pyrene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Benzo(b+j)fluoranthene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Chrysene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Fluoranthene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Fluorene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Naphthalene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Phenanthrene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
Pyrene	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
PAHs (Sum of total)	mg/kg	0.5	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A	<0.5	<0.5	N/A	<0.5	N/A
PCBs																	
PCBs (Sum of total)	mg/kg	0.1	<0.1	<0.1	N/A	<0.1	N/A	<0.1	<0.1	N/A	<0.1	N/A	<0.1	<0.1	N/A	<0.1	N/A
Pesticides																	
Demeton-S-methyl	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Fenamiphos	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
Parathion	mg/kg	0.2	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A	<0.2	<0.2	N/A	<0.2	N/A
Pirimphos-ethyl	mg/kg	0.05	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A	<0.05	<0.05	N/A	<0.05	N/A
TPH																	
C6-C9	mg/kg	10	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A	<10	<10	N/A	<10	N/A
C10-C14	mg/kg	50	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A
C15-C28	mg/kg	100	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A
C29-C36	mg/kg	100	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A	<100	<100	N/A	<100	N/A
+C10-C36 (Sum of total)	mg/kg	50	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A	<50	<50	N/A	<50	N/A

		Field ID	RW01	RW02
		Date	15/01/2019	16/01/2019
	Unit	EQL		
BTEX				
Benzene	µg/L	1	<1	<1
Toluene	µg/L	2	3	3
Ethylbenzene	µg/L	2	<2	<2
Xylene (m & p)	µg/L	2	<2	<2
Xylene (o)	µg/L	2	<2	<2
Xylene Total	µg/L	2	<2	<2
Total BTEX	µg/L	1	3	3
Phenols				
3&4-Methylphenol (m&p-cresol)	µg/L	2	<2.0	<2.0
2,4,5-Trichlorophenol	µg/L	1	<1.0	<1.0
2,4,6-Trichlorophenol	µg/L	1	<1.0	<1.0
2,4-Dichlorophenol	µg/L	1	<1.0	<1.0
2,4-Dimethylphenol	µg/L	1	<1.0	<1.0
2,6-Dichlorophenol	µg/L	1	<1.0	<1.0
2-Chlorophenol	µg/L	1	<1.0	<1.0
2-Methylphenol	µg/L	1	<1.0	<1.0
2-Nitrophenol	µg/L	1	<1.0	<1.0
4-chloro-3-methylphenol	µg/L	1	<1.0	<1.0
Pentachlorophenol	µg/L	2	<2.0	<2.0
Phenol	µg/L	1	<1.0	<1.0
TRH				
C6-C10	µg/L	20	<20	<20
C6-C10 (F1 minus BTEX)	µg/L	20	<20	<20
C10-C16	µg/L	100	<100	<100
C10-C16 (F2 minus Naphthalene)	µg/L	100	<100	<100
C16-C34	µg/L	100	<100	<100
C34-C40	µg/L	100	<100	<100
C10-C40 (Sum of total)	µg/L	100	<100	<100
Halogenated Benzenes				
Hexachlorobenzene	µg/L	0.5	<0.5	<0.5
Metals				
Arsenic	mg/L	0.001	<0.001	<0.001
Cadmium	mg/L	0.0001	<0.0001	<0.0001
Chromium (III+VI)	mg/L	0.001	<0.001	<0.001
Copper	mg/L	0.001	<0.001	<0.001
Lead	mg/L	0.001	<0.001	<0.001
Mercury	mg/L	0.0001	<0.0001	<0.0001
Nickel	mg/L	0.001	<0.001	<0.001
Zinc	mg/L	0.005	<0.005	<0.005
Organochlorine Pesticides				
4,4-DDE	µg/L	0.5	<0.5	<0.5
a-BHC	µg/L	0.5	<0.5	<0.5
Aldrin	µg/L	0.5	<0.5	<0.5
Aldrin + Dieldrin	µg/L	0.5	<0.5	<0.5
b-BHC	µg/L	0.5	<0.5	<0.5
chlordane	µg/L	0.5	<0.5	<0.5
Chlordane (cis)	µg/L	0.5	<0.5	<0.5
Chlordane (trans)	µg/L	0.5	<0.5	<0.5
d-BHC	µg/L	0.5	<0.5	<0.5
DDD	µg/L	0.5	<0.5	<0.5
DDT	µg/L	2	<2.0	<2.0
DDT+DDE+DDD	µg/L	0.5	<0.5	<0.5
Dieldrin	µg/L	0.5	<0.5	<0.5
Endosulfan I	µg/L	0.5	<0.5	<0.5
Endosulfan II	µg/L	0.5	<0.5	<0.5
Endosulfan sulphate	µg/L	0.5	<0.5	<0.5
Endrin	µg/L	0.5	<0.5	<0.5
Endrin aldehyde	µg/L	0.5	<0.5	<0.5
Endrin ketone	µg/L	0.5	<0.5	<0.5
g-BHC (Lindane)	µg/L	0.5	<0.5	<0.5
Heptachlor	µg/L	0.5	<0.5	<0.5
Heptachlor epoxide	µg/L	0.5	<0.5	<0.5
Methoxychlor	µg/L	2	<2.0	<2.0
Organophosphorous Pesticides				
Azinophos methyl	µg/L	0.5	<0.5	<0.5
Bromophos-ethyl	µg/L	0.5	<0.5	<0.5
Carbophenothion	µg/L	0.5	<0.5	<0.5
Chlorfenvinphos	µg/L	0.5	<0.5	<0.5
Chlorpyrifos	µg/L	0.5	<0.5	<0.5
Chlorpyrifos-methyl	mg/L	0.0005	<0.0005	<0.0005
Diazinon	µg/L	0.5	<0.5	<0.5
Dichlorvos	µg/L	0.5	<0.5	<0.5
Dimethoate	µg/L	0.5	<0.5	<0.5
Ethion	µg/L	0.5	<0.5	<0.5
Fenthion	µg/L	0.5	<0.5	<0.5
Malathion	µg/L	0.5	<0.5	<0.5
Methyl parathion	µg/L	2	<2.0	<2.0
Monocrotophos	µg/L	2	<2.0	<2.0
Prothiofos	µg/L	0.5	<0.5	<0.5
PAH				
Acenaphthene	µg/L	1	<1.0	<1.0
Acenaphthylene	µg/L	1	<1.0	<1.0
Anthracene	µg/L	1	<1.0	<1.0
Benz(a)anthracene	µg/L	1	<1.0	<1.0
Benzo(a) pyrene	µg/L	0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	mg/L	0.001	<0.0010	<0.0010
Benzo(g,h,i)perylene	µg/L	1	<1.0	<1.0
Benzo(k)fluoranthene	µg/L	1	<1.0	<1.0
Chrysene	µg/L	1	<1.0	<1.0
Dibenz(a,h)anthracene	µg/L	1	<1.0	<1.0
Fluoranthene	µg/L	1	<1.0	<1.0
Fluorene	µg/L	1	<1.0	<1.0
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0	<1.0
Naphthalene	µg/L	1	<1.0	<1.0
Phenanthrene	µg/L	1	<1.0	<1.0
Pyrene	µg/L	1	<1.0	<1.0
PAHs (Sum of total)	µg/L	0.5	<0.5	<0.5
PCBs				
PCBs (Sum of total)	µg/L	1	<1	<1
Pesticides				
Demeton-S-methyl	µg/L	0.5	<0.5	<0.5
Fenamiphos	µg/L	0.5	<0.5	<0.5
Parathion	µg/L	2	<2.0	<2.0
Pirimphos-ethyl	µg/L	0.5	<0.5	<0.5
TPH				
C6-C9	µg/L	20	<20	<20
C10-C14	µg/L	50	<50	<50
C15-C28	µg/L	100	<100	<100
C29-C36	µg/L	50	<50	<50
+C10-C36 (Sum of total)	µg/L	50	<50	<50

			TRIP BLANK	TRIP SPIKE	TSC
			9/01/2019	9/01/2019	9/01/2019
	Unit	EQL			
BTEX					
Benzene	mg/kg	0.2	<0.2	0.3	0.3
Toluene	mg/kg	0.5	<0.5	18.8	19.4
Ethylbenzene	mg/kg	0.5	<0.5	2.6	2.7
Xylene (m & p)	mg/kg	0.5	<0.5	13.2	13.6
Xylene (o)	mg/kg	0.5	<0.5	5.2	5.3
Xylene Total	mg/kg	0.5	<0.5	18.4	18.9
Total BTEX	mg/kg	0.2	<0.2	40.1	41.3
TRH					
C6-C10	mg/kg	10	<10	76	78
C6-C10 (F1 minus BTEX)	mg/kg	10	<10	36	37
C10-C16	mg/kg	50			
C10-C16 (F2 minus Naphthalene)	mg/kg	50			
C16-C34	mg/kg	100			
C34-C40	mg/kg	100			
C10-C40 (Sum of total)	mg/kg	50			
PAH					
Acenaphthene	mg/kg	0.5			
Acenaphthylene	mg/kg	0.5			
Anthracene	mg/kg	0.5			
Benz(a)anthracene	mg/kg	0.5			
Benzo(a) pyrene	mg/kg	0.5			
Benzo(b+j)fluoranthene	mg/kg	0.5			
Benzo(g,h,i)perylene	mg/kg	0.5			
Benzo(k)fluoranthene	mg/kg	0.5			
Chrysene	mg/kg	0.5			
Dibenz(a,h)anthracene	mg/kg	0.5			
Fluoranthene	mg/kg	0.5			
Fluorene	mg/kg	0.5			
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5			
Naphthalene	mg/kg	0.5	<1	<1	<1
Phenanthrene	mg/kg	0.5			
Pyrene	mg/kg	0.5			
PAHs (Sum of total)	mg/kg	0.5			
TPH					
C6-C9	mg/kg	10	<10	63	65
C10-C14	mg/kg	50			
C15-C28	mg/kg	100			
C29-C36	mg/kg	100			
+C10-C36 (Sum of total)	mg/kg	50			

Appendix A

LOTSEARCH ENVIRONMENTAL REPORT (2018)

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 18 Dec 2018 15:05:57

Reference: LS004800 EP

Address: 52 Sinclair Street, Goulburn, NSW 2580

Disclaimer:
The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.
You should obtain independent advice before you make any decision based on the information within the report.
The detailed terms applicable to use of this report are set out at the end of this report.

Table of Contents

Location Confidences 2
Dataset Listings 3
Site Location Aerial 5
Contaminated Land & Waste Management Facilities 6
EPA PFAS Investigation Program 9
EPA Other Sites with Contamination Issues 10
EPA Current Licensed Activities 11
EPA Delicensed & Former Licensed Activities 13
UPSS Sensitive Zones 15
Historical Business Activities 16
Historical Aerial Imagery & Maps 22
Topographic Features 35
Elevation Contours 39
Hydrogeology & Groundwater 40
Geology 48
Naturally Occurring Asbestos Potential 50
Soils 51
Acid Sulfate Soils 55
Dryland Salinity 58
Mining Subsidence Districts 59
State Environmental Planning 60
Environmental Planning Instruments 61
Heritage 64
Natural Hazards 67
Ecological Constraints 69
Terms & Conditions 76

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	Dept. Finance, Services & Innovation	18/12/2018	18/12/2018	Daily	-	-	-	-
Topographic Data	Dept. Finance, Services & Innovation	17/07/2018	17/07/2018	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	29/11/2018	09/11/2018	Monthly	1000	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority	13/12/2018	13/12/2018	Monthly	1000	0	0	0
Former Gasworks	Environment Protection Authority	04/12/2018	11/10/2017	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/11/2018	07/03/2017	Quarterly	1000	0	0	1
EPA PFAS Investigation Program	Environment Protection Authority	29/11/2018	29/11/2018	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	11/01/2018	11/01/2018	As required	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	27/11/2018	27/11/2018	Monthly	1000	0	3	7
Delicensed POEO Activities still Regulated by the EPA	Environment Protection Authority	27/11/2018	27/11/2018	Monthly	1000	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	27/11/2018	27/11/2018	Monthly	1000	0	3	6
UPSS Environmentally Sensitive Zones	Environment Protection Authority	14/04/2015	12/01/2010	As required	1000	1	1	1
UBD Business Directory 1982 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1982 (Road & Area Matches)	Hardie Grant			Not required	150	-	6	6
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1961 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1961 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	0	0	0
UBD Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	0	2
Points of Interest	Dept. Finance, Services & Innovation	12/10/2018	12/10/2018	Quarterly	1000	0	0	18
Tanks (Areas)	Dept. Finance, Services & Innovation	15/10/2018	15/10/2018	Quarterly	1000	0	0	0
Tanks (Points)	Dept. Finance, Services & Innovation	15/10/2018	15/10/2018	Quarterly	1000	0	0	0
Major Easements	Dept. Finance, Services & Innovation	12/10/2018	12/10/2018	Quarterly	1000	0	0	8
State Forest	Dept. Finance, Services & Innovation	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	18/01/2018	30/09/2017	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Botany Groundwater Management Zones	NSW Department of Primary Industries	15/03/2018	01/10/2005	As required	1000	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000	0	0	47
Geological Units 1:250,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	1	-	3
Geological Structures 1:250,000	NSW Dept. of Industry, Resources & Energy	20/08/2014		None planned	1000	2	-	12
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Soil Landscapes	NSW Office of Environment & Heritage	12/08/2014		None planned	1000	1	-	3
Atlas of Australian Soils	CSIRO	19/05/2017	17/02/2011	As required	1000	1	1	2
Environmental Planning Instrument - Acid Sulfate Soils	NSW Department of Planning and Environment	23/10/2018	12/10/2018	As required	500	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	1
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Office of Environment & Heritage	12/05/2017	01/01/2002	None planned	1000	-	-	-
Mining Subsidence Districts	Dept. Finance, Services & Innovation	13/07/2017	01/07/2017	As required	1000	0	0	0
SEPP 14 - Coastal Wetlands	NSW Planning and Environment	17/12/2015	24/10/2008	Annually	1000	0	0	0
SEPP 26 - Littoral Rainforest	NSW Planning and Environment	17/12/2015	05/02/1988	Annually	1000	0	0	0
SEPP 71 - Coastal Protection	NSW Planning and Environment	17/12/2015	01/08/2003	Annually	1000	0	0	0
SEPP Major Developments 2005	NSW Planning and Environment	09/03/2013	25/05/2005	Under Review	1000	0	0	0
SEPP Strategic Land Use Areas	NSW Planning and Environment	01/08/2017	28/01/2014	Annually	1000	0	0	0
EPI - Land Zoning	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	1000	3	3	27
EPI - Minimum Lot Size	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	0	1	-	-
EPI - Height of Buildings	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	0	0	-	-
EPI - Floor Space Ratio	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	0	1	-	-
EPI - Land Application	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	0	1	-	-
EPI - Land Reservation Acquisition	NSW Planning and Environment	23/10/2018	12/10/2018	Quarterly	0	0	-	-
State Heritage Register - Curtilages	NSW Office of Environment & Heritage	18/10/2018	19/01/2018	Quarterly	1000	0	0	2
Environmental Planning Instrument - Heritage	NSW Department of Planning and Environment	23/10/2018	12/10/2018	Quarterly	1000	0	0	14
Bush Fire Prone Land	NSW Rural Fire Service	27/11/2018	31/07/2018	Quarterly	1000	2	2	3
Vegetation of Southern Forests	NSW Office of Environment & Heritage	09/12/2014	10/10/2011	Unknown	1000	0	0	12
Ramsar Wetlands	Commonwealth of Australia Department of the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	5
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	12/12/2018	12/12/2018	Daily	10000	-	-	-

Aerial Imagery 2018

52 Sinclair Street, Goulburn, NSW 2580



Scale:
0 50 100 200
Meters

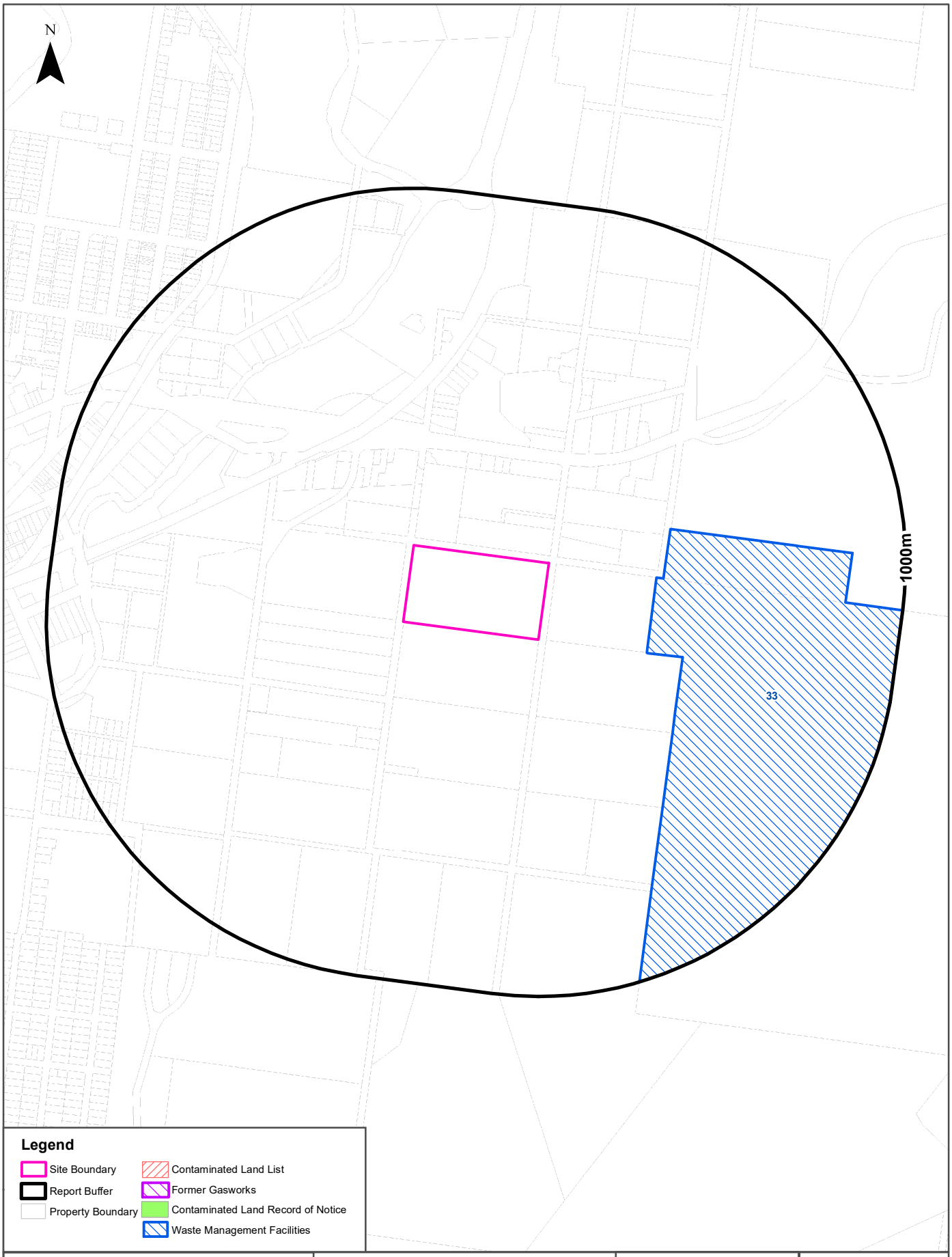
Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 14 December 2018

Contaminated Land & Waste Management Facilities

52 Sinclair Street, Goulburn, NSW 2580



Contaminated Land & Waste Management Facilities

52 Sinclair Street, Goulburn, NSW 2580

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist (m)	Direction
N/A	No records in buffer								

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Contaminated Land & Waste Management Facilities

52 Sinclair Street, Goulburn, NSW 2580

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit
http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
33	Goulburn Mulwaree Shire Council	Goulburn Waste Management Facility	100 Sinclair Street	Goulburn	Landfill	Operational				Premise Match	304 m	South East

Waste Management Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

EPA PFAS Investigation Program

52 Sinclair Street, Goulburn, NSW 2580

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Id	Site	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

EPA Other Sites with Contamination Issues

52 Sinclair Street, Goulburn, NSW 2580

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Current EPA Licensed Activities

52 Sinclair Street, Goulburn, NSW 2580



EPA Activities

52 Sinclair Street, Goulburn, NSW 2580

Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

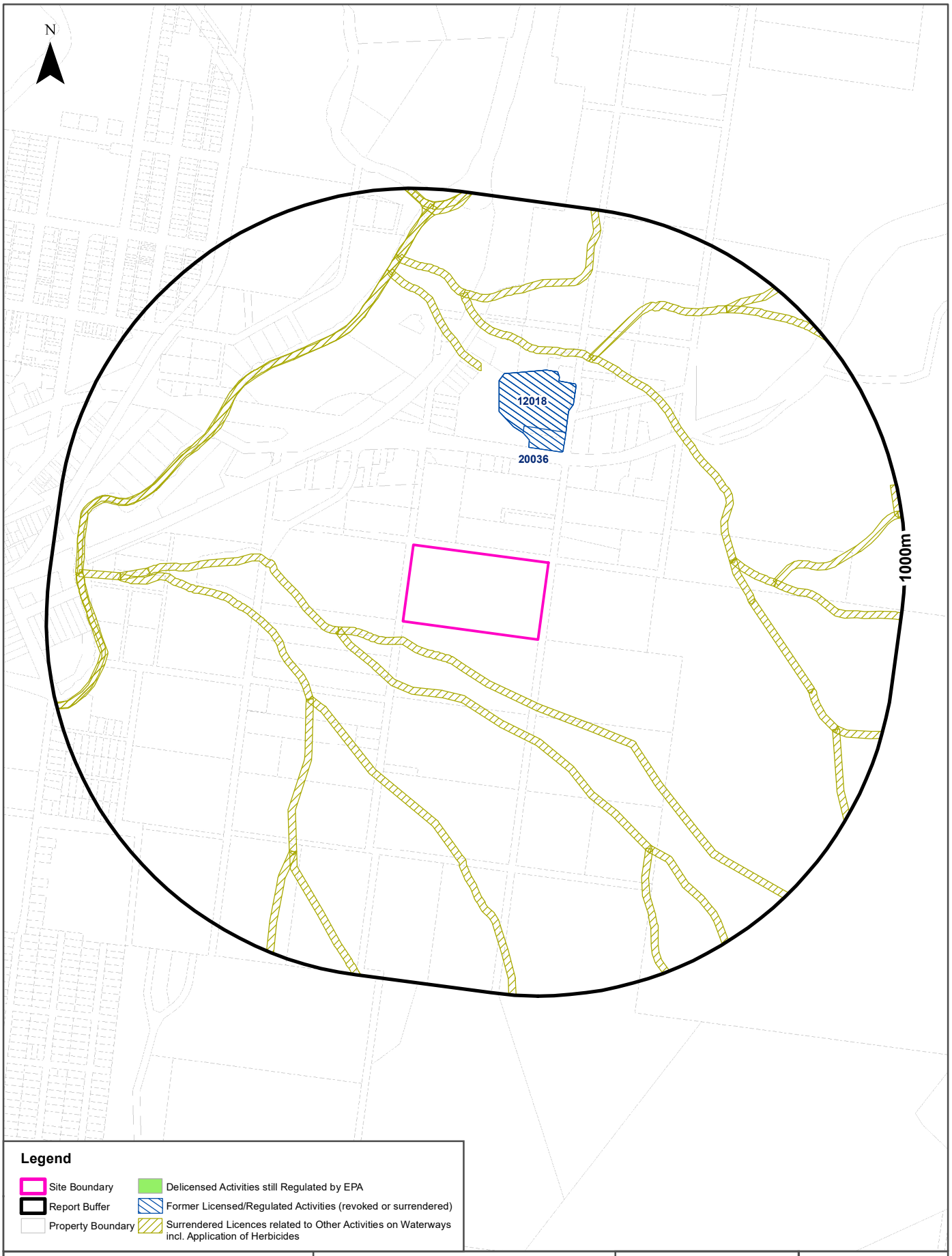
EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
20724	A.J. & B.M. WYBROW PTY LTD		27 Hetherington Street, GOULBURN, NSW 2580		Non-thermal treatment of general waste	Premise Match	22m	West
20724	A.J. & B.M. WYBROW PTY LTD		27 Hetherington Street, GOULBURN, NSW 2580		Recovery of general waste	Premise Match	22m	West
20724	A.J. & B.M. WYBROW PTY LTD		27 Hetherington Street, GOULBURN, NSW 2580		Waste storage - other types of waste	Premise Match	22m	West
6780	GOULBURN MULWAREE COUNCIL	GOULBURN WASTE MANAGEMENT CENTRE	100 SINCLAIR STREET	GOULBURN	Waste disposal by application to land	Premise Match	304m	South East
13421	JOHN HOLLAND RAIL PTY LTD		PO Box 215 , PARRAMATTA, NSW 2124		Railway systems activities	Network of Features	353m	North West
3142	AUSTRALIAN RAIL TRACK CORPORATION LIMITED		Australian Rail Track Corporation (ARTC) network as defined by the ARTC Network Deeds within NSW., SYDNEY, NSW 2001		Railway systems activities	Network of Features	353m	North West
1742	GOULBURN MULWAREE COUNCIL	CITY OF GOULBURN SEWAGE TREATMENT SYSTEM	54-70 ROSS STREET	GOULBURN	Sewage treatment processing by small plants	Premise Match	998m	North

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

52 Sinclair Street, Goulburn, NSW 2580



EPA Activities

52 Sinclair Street, Goulburn, NSW 2580

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

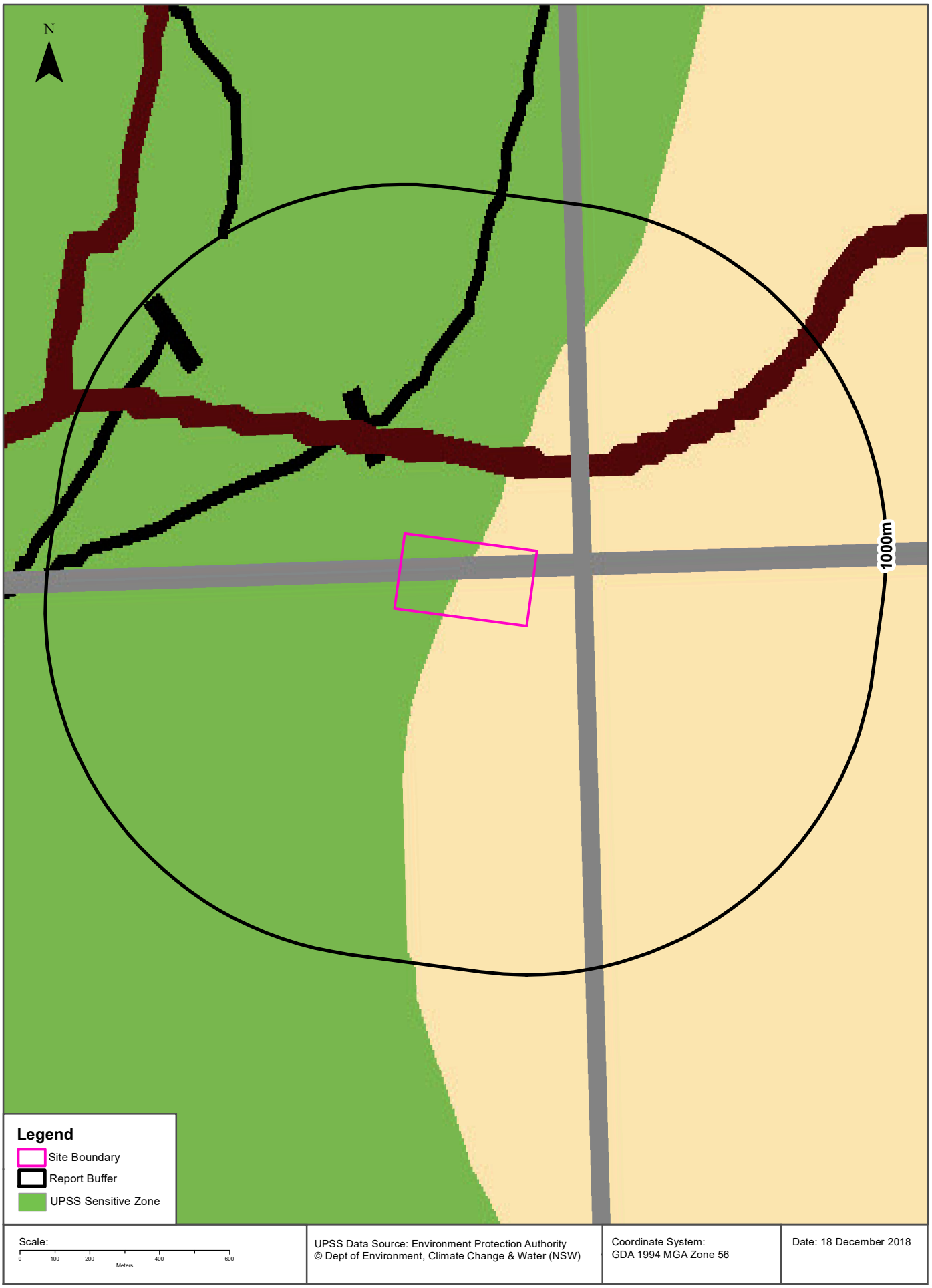
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	43m	-
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	43m	-
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered		Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	43m	-
20036	CHRISTOPHER JAMES EVESTON	12 Common Street Goulburn, 2-12 Common Street, GOULBURN	Revoked	12/07/2012	Recovery of general waste	Premise Match	312m	North
20036	CHRISTOPHER JAMES EVESTON	12 Common Street Goulburn, 2-12 Common Street, GOULBURN	Revoked	12/07/2012	Waste storage - other types of waste	Premise Match	312m	North
12018	GOULBURN RECYCLING (AUST) PTY LTD	12 COMMON STREET, GOULBURN, NSW 2580	Revoked	25/03/2004	Inert Waste Landfilling	Premise Match	352m	North

Former Licensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

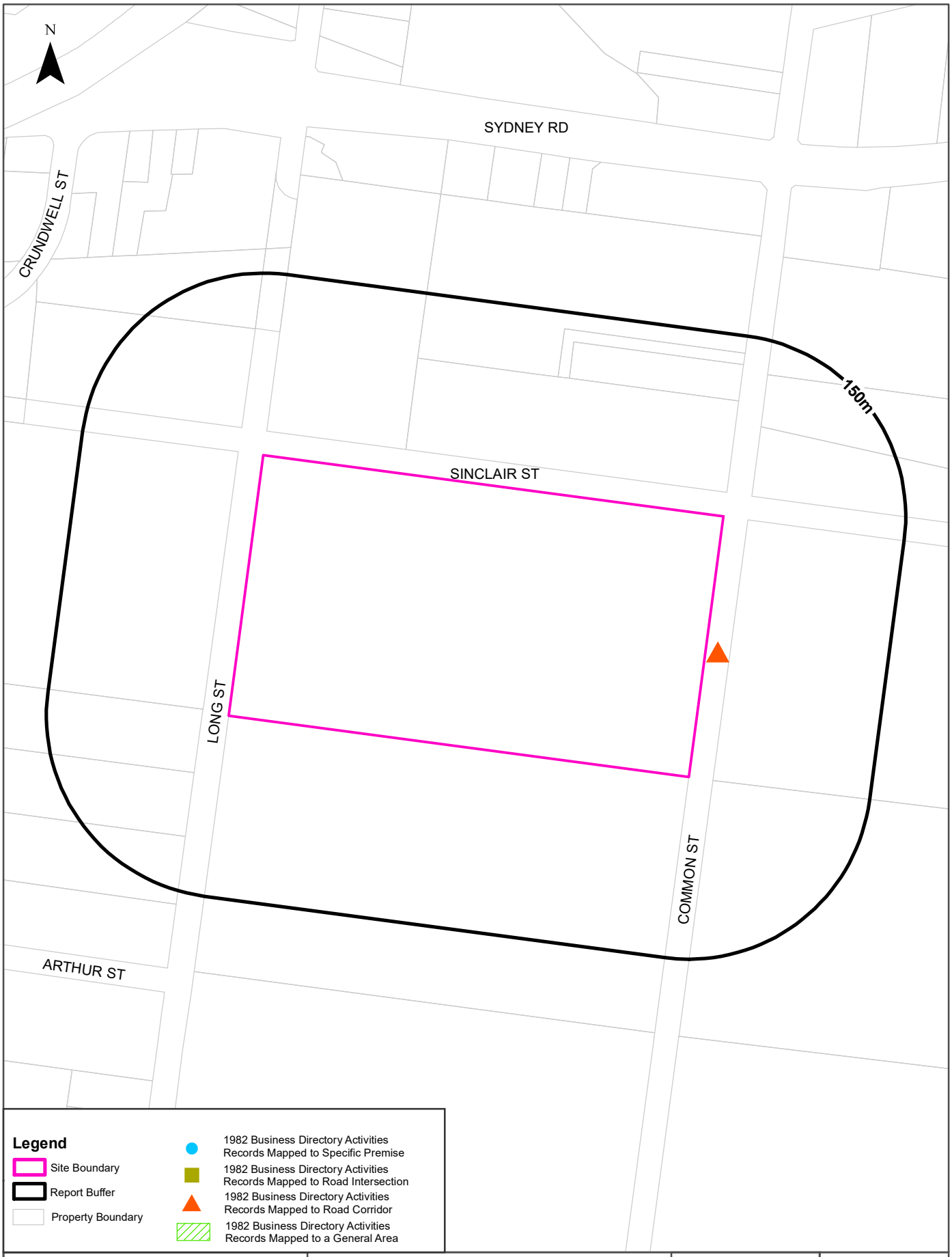
UPSS Sensitive Zones

52 Sinclair Street, Goulburn, NSW 2580



1982 Historical Business Directory Records

52 Sinclair Street, Goulburn, NSW 2580



Data Sources: Universal Business Directories (UBD) - Derived Data Licensed from Hardie Grant.
Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 18 December 2018

Historical Business Directories

52 Sinclair Street, Goulburn, NSW 2580

1982 Business Directory Records
Premise or Road Intersection Matches

Records from the 1982 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1982 Business Directory Records
Road or Area Matches

Records from the 1982 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
ACCOUNTANTS & AUDITORS	Charles, V. A., Common St., Goulburn	155392	Road Match	0m
CARRIERS &/OR CARTAGE CONTRACTORS	Fife & Atkinson Transport Common Street, Goulburn.	148162	Road Match	0m
CARRIERS &/OR CARTAGE CONTRACTORS	Fife & Atkinson Transport Common Street, Goulburn	155552	Road Match	0m
CARRIERS - LIVESTOCK	Fife & Atkinson Transport Services, Common St., Goulburn	155564	Road Match	0m
STORAGE & DISTRIBUTION CENTRES	Fife & Atkinson Transport Services. Common St.. Goulburn	156154	Road Match	0m
CARRIERS &/OR CARTAGE CONTRACTORS	Fife & Atkinson Transport, Common St., Goulburn	155557	Road Match	0m

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

52 Sinclair Street, Goulburn, NSW 2580

1970 Business Directory Records
Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1970 Business Directory Records
Road or Area Matches

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

52 Sinclair Street, Goulburn, NSW 2580

1961 Business Directory Records
Premise or Road Intersection Matches

Records from the 1961 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1961 Business Directory Records
Road or Area Matches

Records from the 1961 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

52 Sinclair Street, Goulburn, NSW 2580

1950 Business Directory Records
Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer				

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

1950 Business Directory Records
Road or Area Matches

Records from the 1950 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer			

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Historical Business Directories

52 Sinclair Street, Goulburn, NSW 2580

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Feature Point	Direction
N/A	No records in buffer					

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
MOTOR GARAGES & ENGINEERS	Frank's Crane & Towing Service Hume Hghwy. (Sydney Rd.), Goulburn North, Goulburn	574044	**1970**	Road Match	262m
MOTOR GARAGES & ENGINEERS	Total Service Station, Sydney Rd., Goulburn North Goulburn	574071	**1970**	Road Match	262m

Business Directory Content Derived from Universal Business Directories (UBD) - Licensed from Hardie Grant

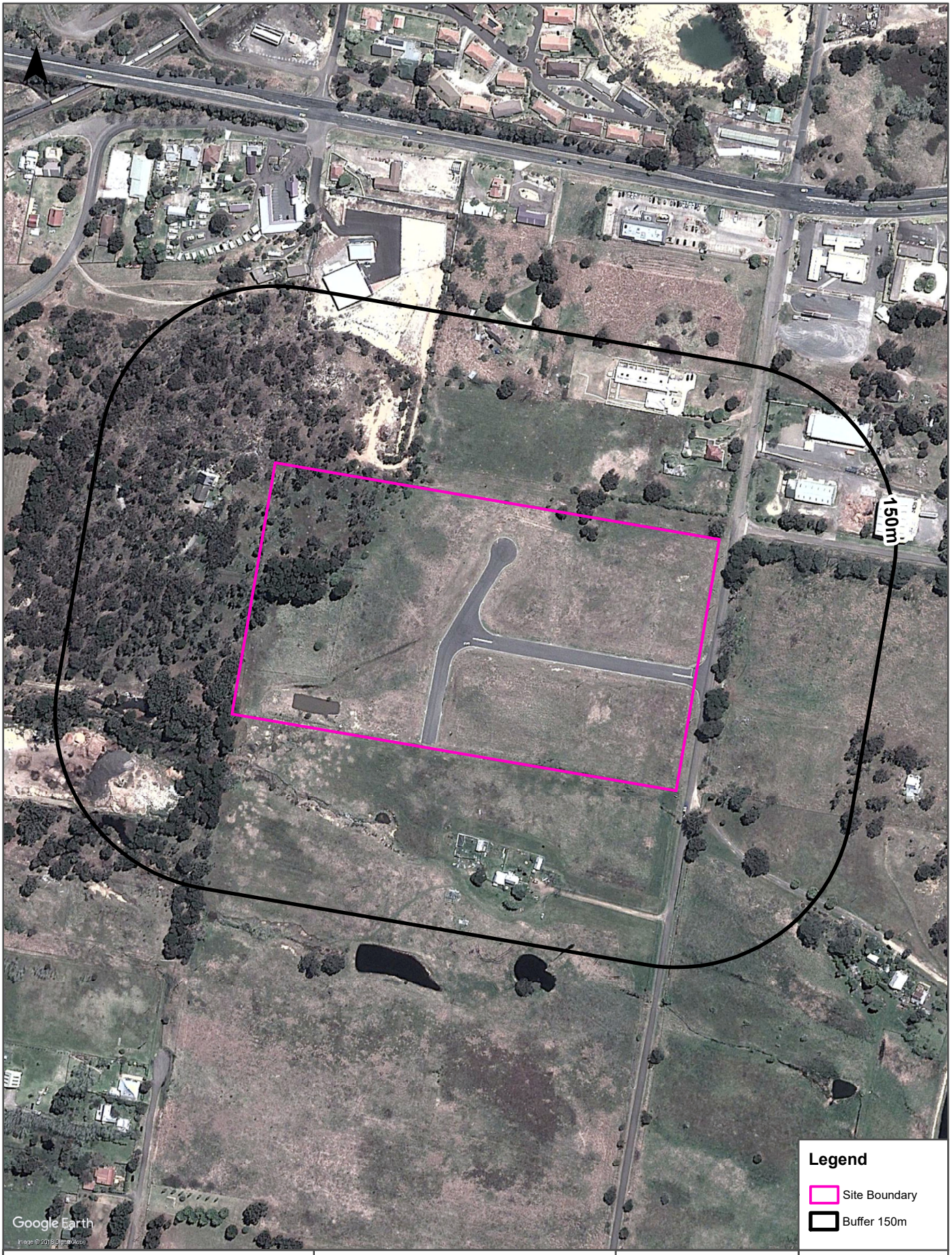
Aerial Imagery 2014

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 2012

52 Sinclair Street, Goulburn, NSW 2580



Scale:
0 50 100 200
Meters

Data Source Aerial Imagery: © 2018 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 14 December 2018

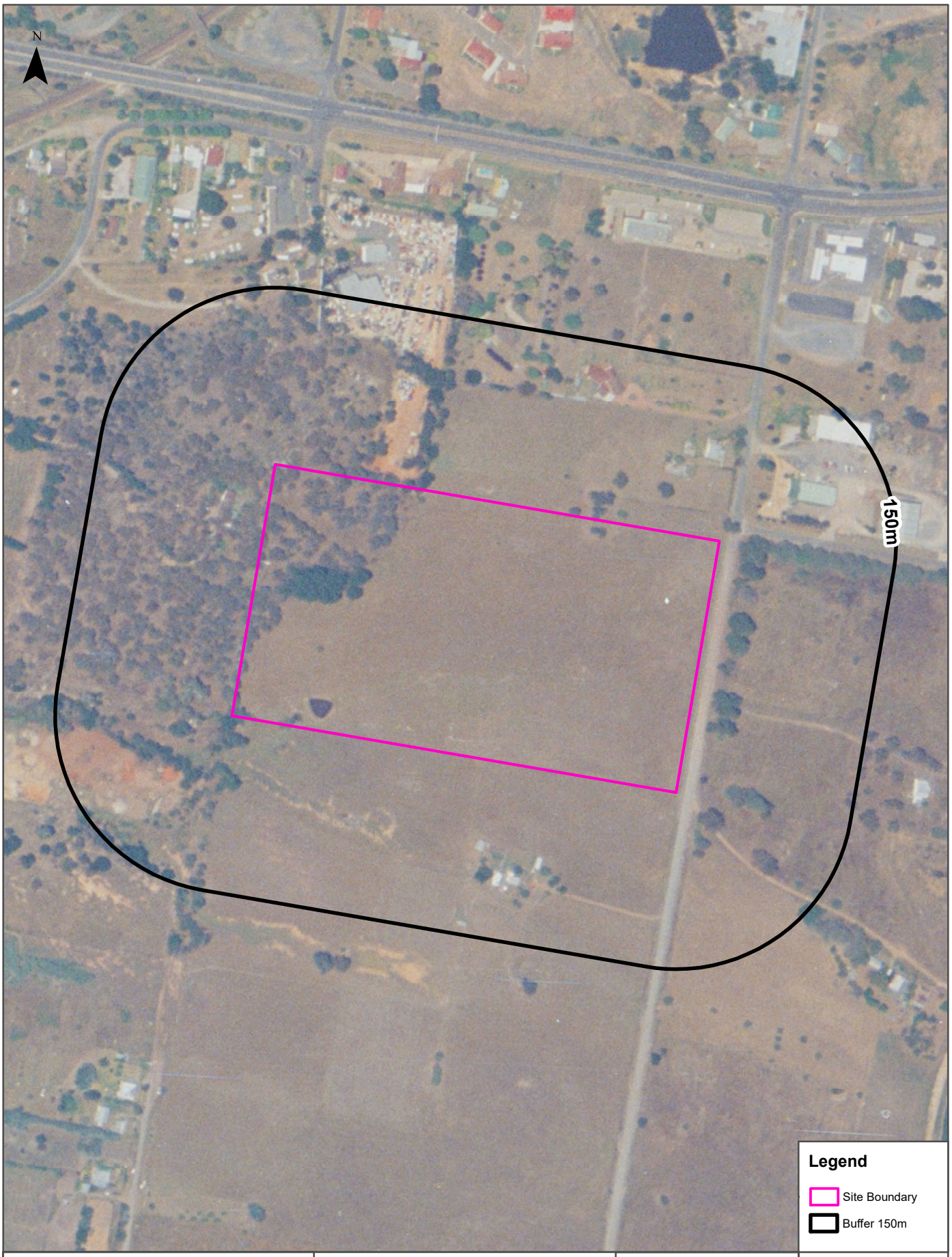
Aerial Imagery 2006

52 Sinclair Street, Goulburn, NSW 2580



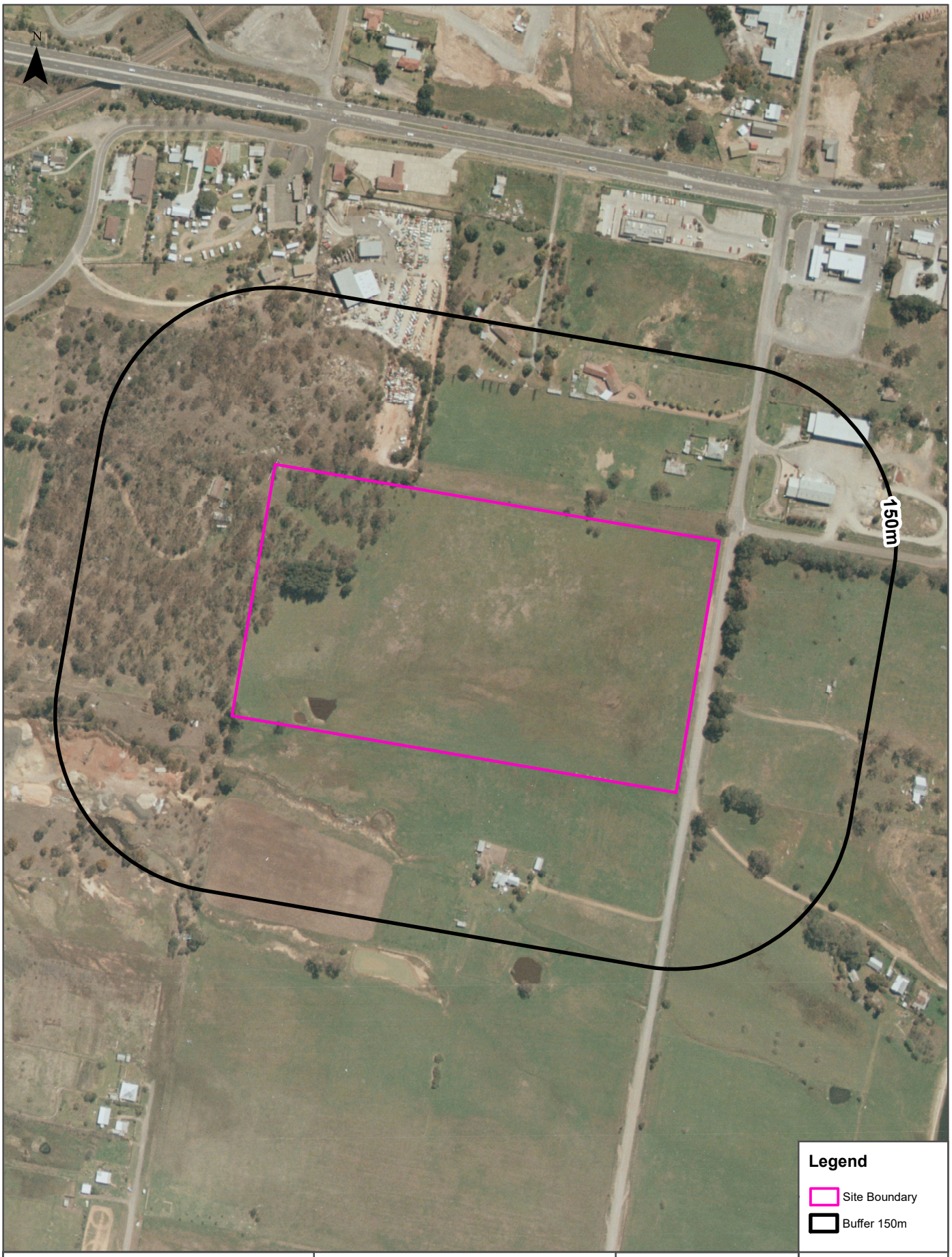
Aerial Imagery 1997

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 1991

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 1987

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 1979

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 1975

52 Sinclair Street, Goulburn, NSW 2580



Aerial Imagery 1967

52 Sinclair Street, Goulburn, NSW 2580



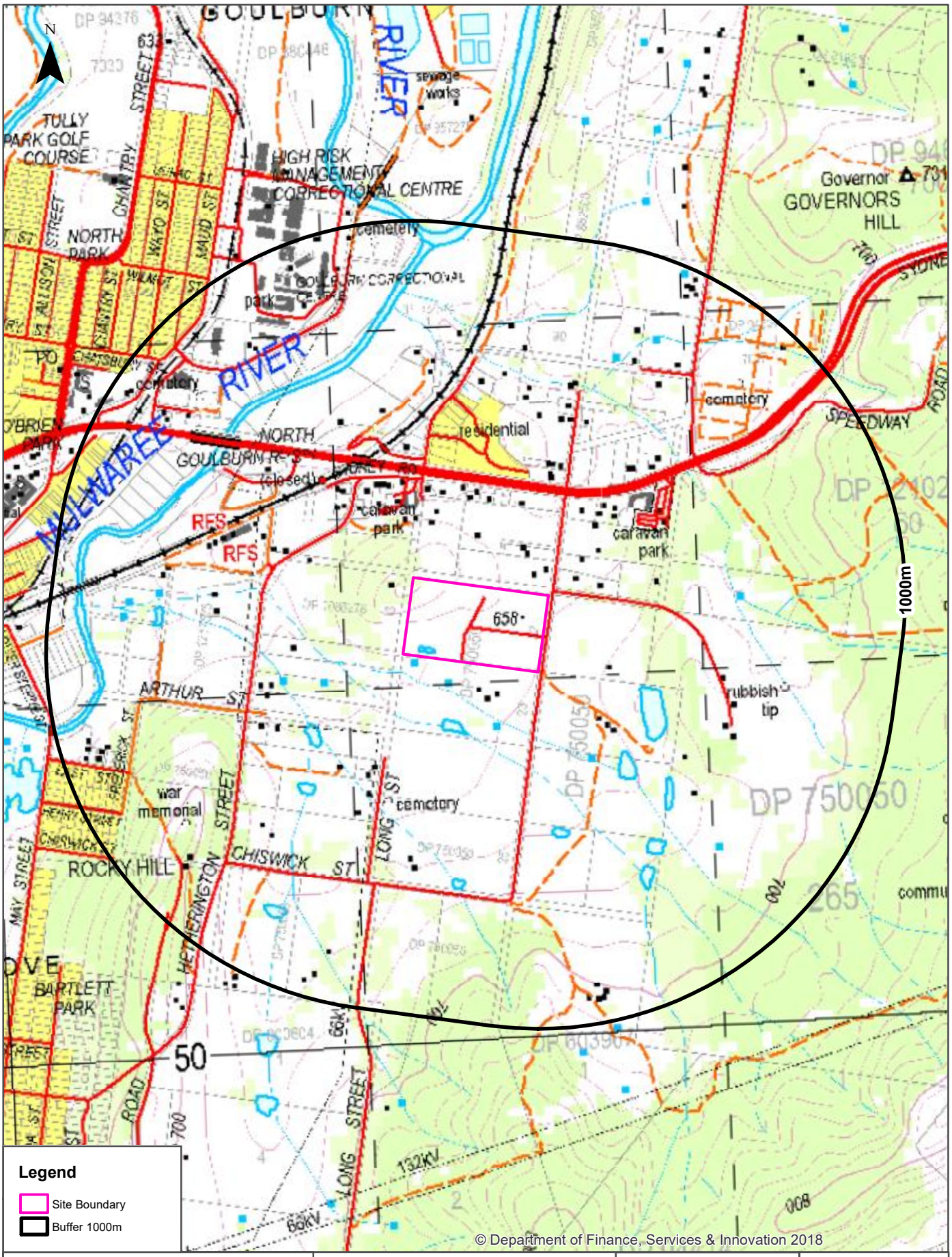
Aerial Imagery 1953

52 Sinclair Street, Goulburn, NSW 2580



Topographic Map 2015

52 Sinclair Street, Goulburn, NSW 2580


N
GOULBURN
RIVER
sewage works
TULLY PARK GOLF COURSE
HIGH RISK MANAGEMENT CORRECTIONAL CENTRE
cemetery
NORTH PARK
park
PO
cemetery
RIVER
MULWAREE
NORTH GOULBURN R.S.
(closed)
residential
Governor
GOVERNORS HILL
SPEEDWAY
cemetery
caravan park
caravan park
RFS
RFS
658
1000m
ARTHUR ST
rubbish tip
war memorial
cemetery
ROCKY HILL
CHISWICK ST
LONG ST
HETHERINGTON STREET
MAY STREET
BARTLETT PARK
50
66KV
132KV
66KV
LONG STREET
ROAD
DP 750050
DP 750050
DP 750050

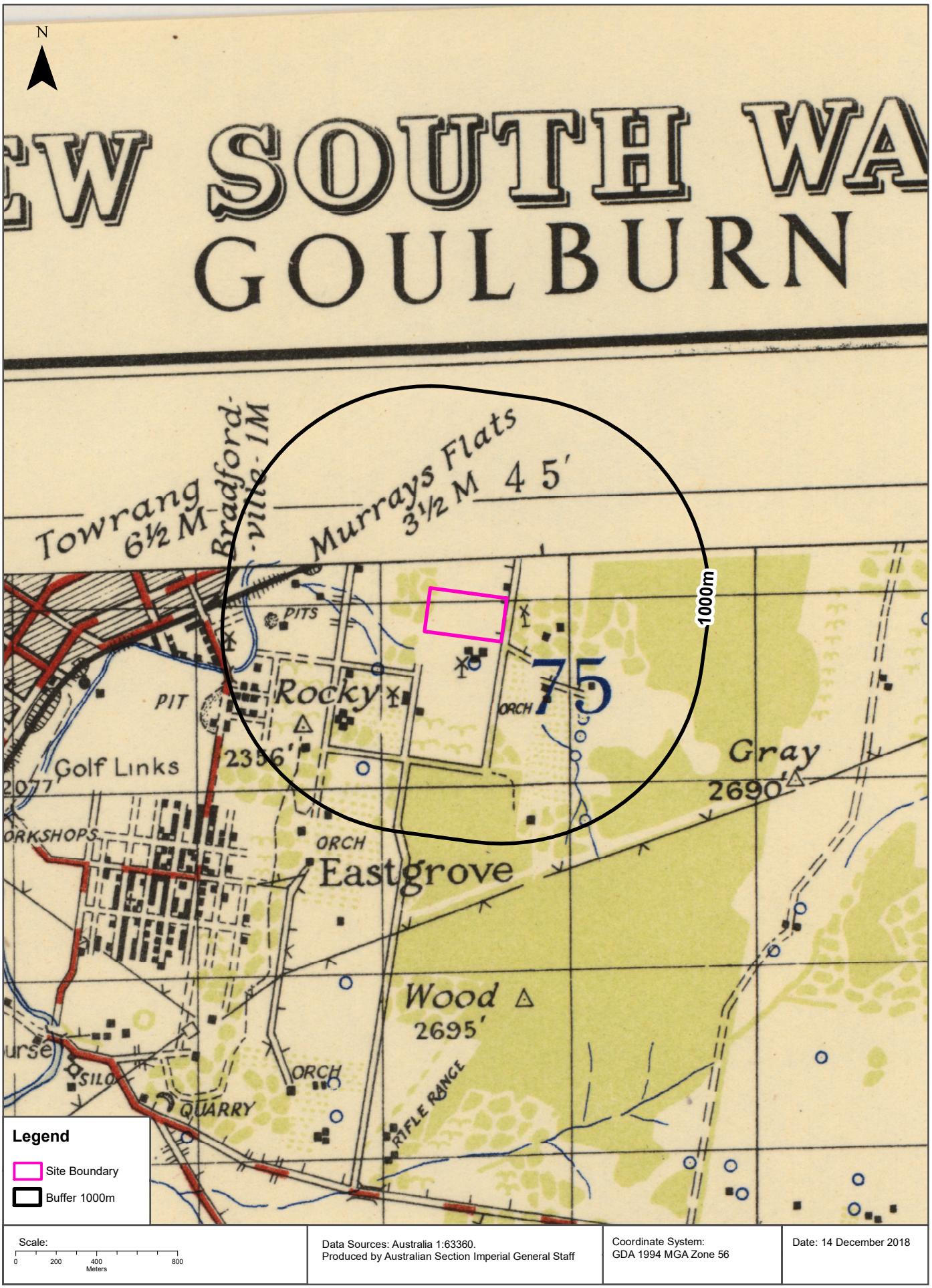
Historical Map 1981

52 Sinclair Street, Goulburn, NSW 2580



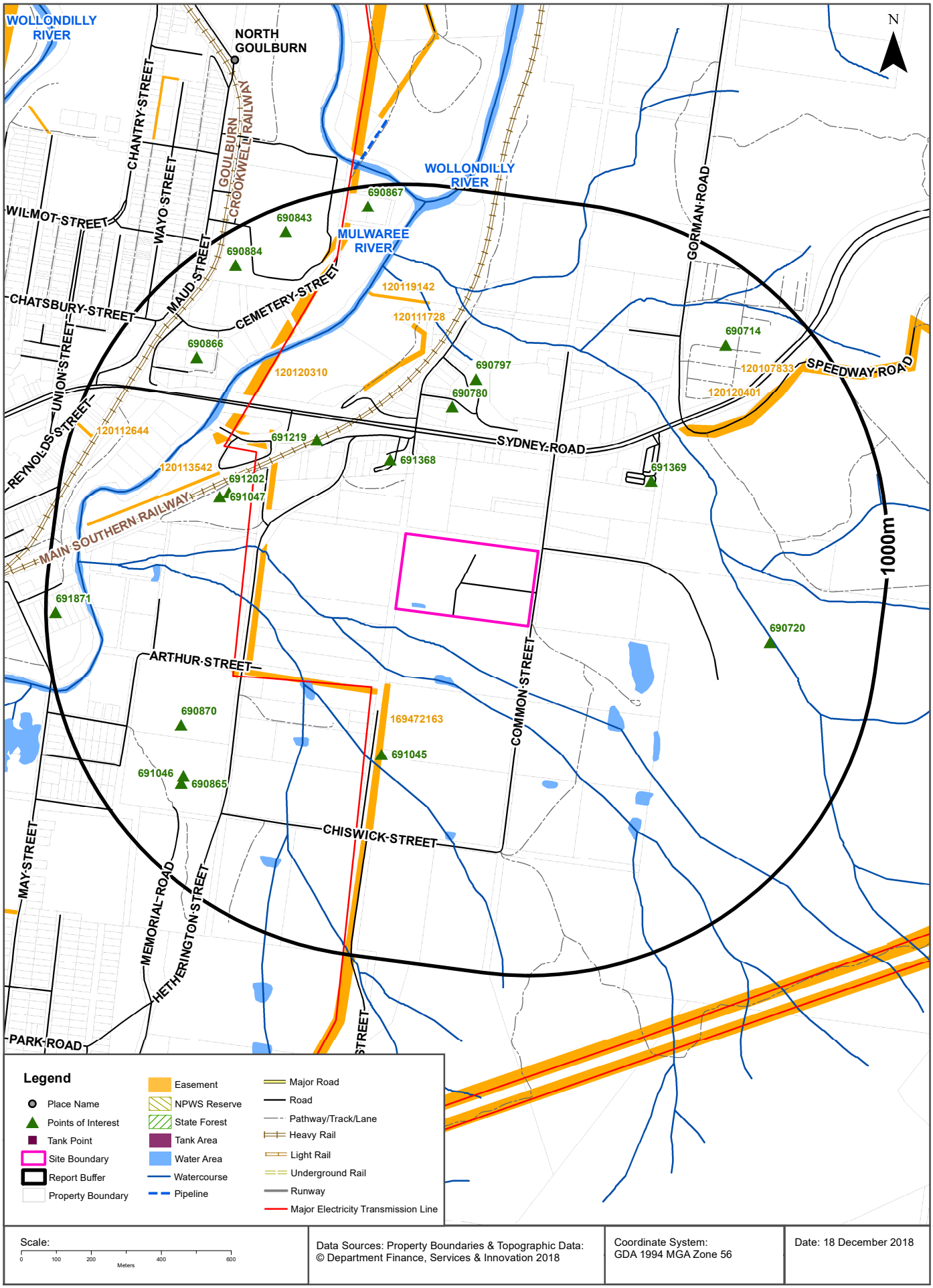
Historical Map c.1942

52 Sinclair Street, Goulburn, NSW 2580



Topographic Features

52 Sinclair Street, Goulburn, NSW 2580



Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 18 December 2018

Topographic Features

52 Sinclair Street, Goulburn, NSW 2580

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
691368	Tourist Park / Home Village	WILLOWS MOTEL AND CARAVAN PARK	217m	North West
691219	Railway Station	NORTH GOULBURN RAILWAY STATION	370m	North West
690780	Retirement Village	GOULBURN MASONIC VILLAGE	378m	North
691369	Tourist Park / Home Village	GOVERNORS HILL CARAPARK	380m	North East
691045	Cemetery	JEWISH CEMETERY	419m	South West
690797	Community Home	RFBI GOULBURN MASONIC VILLAGE	466m	North
691202	Firestation - Bush	GOULBURN MULWAREE-RAFT RFB	518m	West
691047	Firestation - Bush	GOULBURN MULWAREE-SUPPORT RFB	542m	West
690720	Rubbish Depot	Rubbish Depot	691m	East
690870	Park	MEMORIAL PARK	697m	South West
691046	Monument	WAR MEMORIAL	772m	South West
690866	Cemetery	MORTIS STREET CEMETERY	782m	North West
690865	Mountain/Hill/Peak	ROCKY HILL	790m	South West
690714	Cemetery	GOULBURN CEMETERY	798m	North East
690884	Park	Park	910m	North West
690843	Gaol	GOULBURN CORRECTIONAL CENTRE	930m	North West
690867	Cemetery	ST SAVIOURS CEMETERY	944m	North
691871	Park	PETER MOWLE RESERVE	972m	West

Topographic Data Source: © Land and Property Information (2015)
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Topographic Features

52 Sinclair Street, Goulburn, NSW 2580

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)
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Major Easements

What Major Easements exist within the dataset buffer?
Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
169472163	Primary	Electricity	30m	218m	South West
120111728	Primary	Undefined		427m	North
120120401	Primary	Undefined		534m	North East
120113542	Primary	Undefined		559m	West
120120310	Primary	Undefined		570m	North West
120119142	Primary	Undefined		661m	North
120107833	Primary	Undefined		904m	East
120112644	Primary	Undefined		939m	West

Easements Data Source: © Land and Property Information (2015)
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Topographic Features

52 Sinclair Street, Goulburn, NSW 2580

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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National Parks and Wildlife Service Reserves

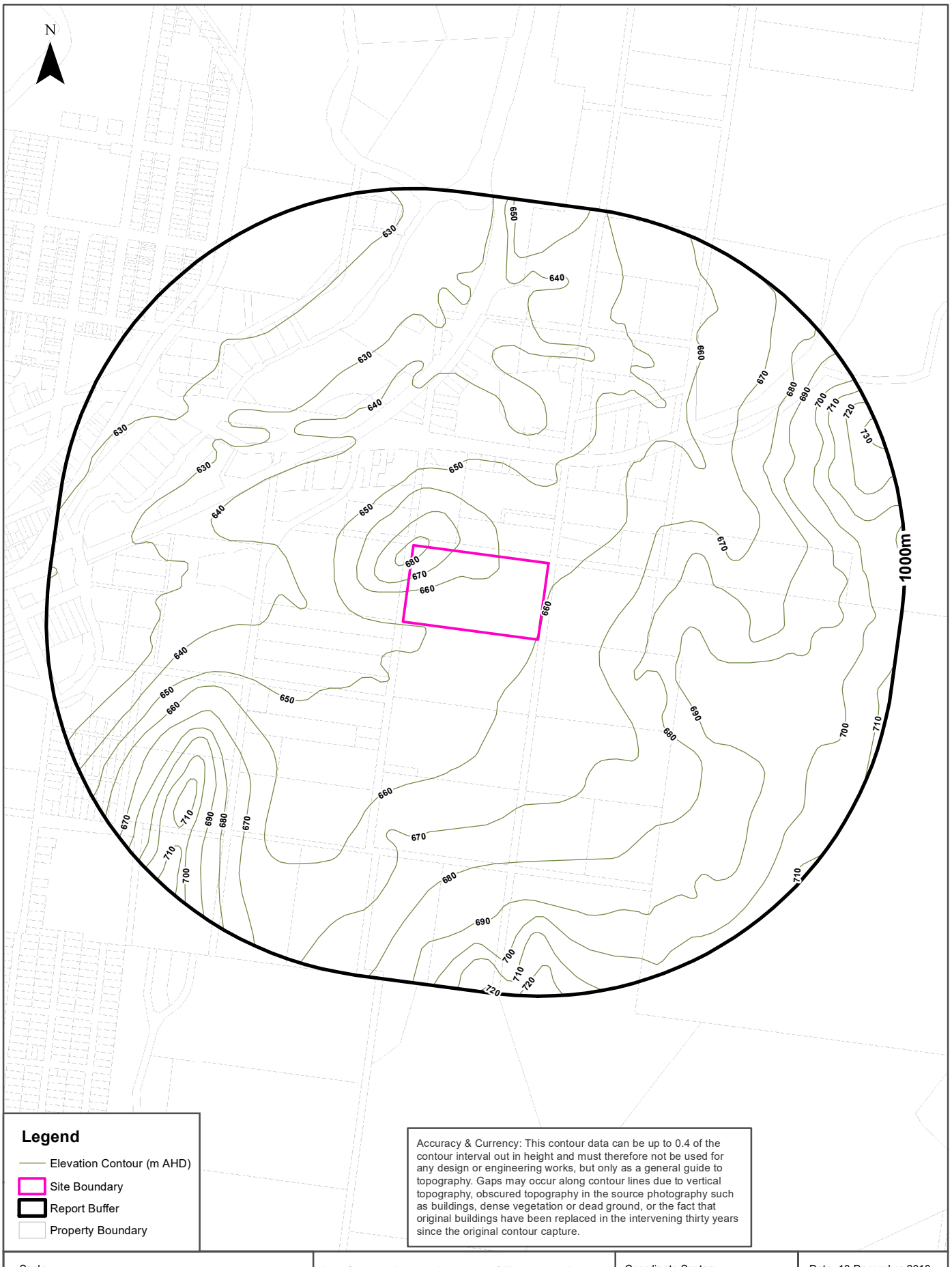
What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018)
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Elevation Contours (m AHD)

52 Sinclair Street, Goulburn, NSW 2580



Hydrogeology & Groundwater

52 Sinclair Street, Goulburn, NSW 2580

Hydrogeology

Description of aquifers on-site:

Description
Fractured or fissured, extensive aquifers of low to moderate productivity

Description of aquifers within the dataset buffer:

Description
Fractured or fissured, extensive aquifers of low to moderate productivity

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
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Botany Groundwater Management Zones

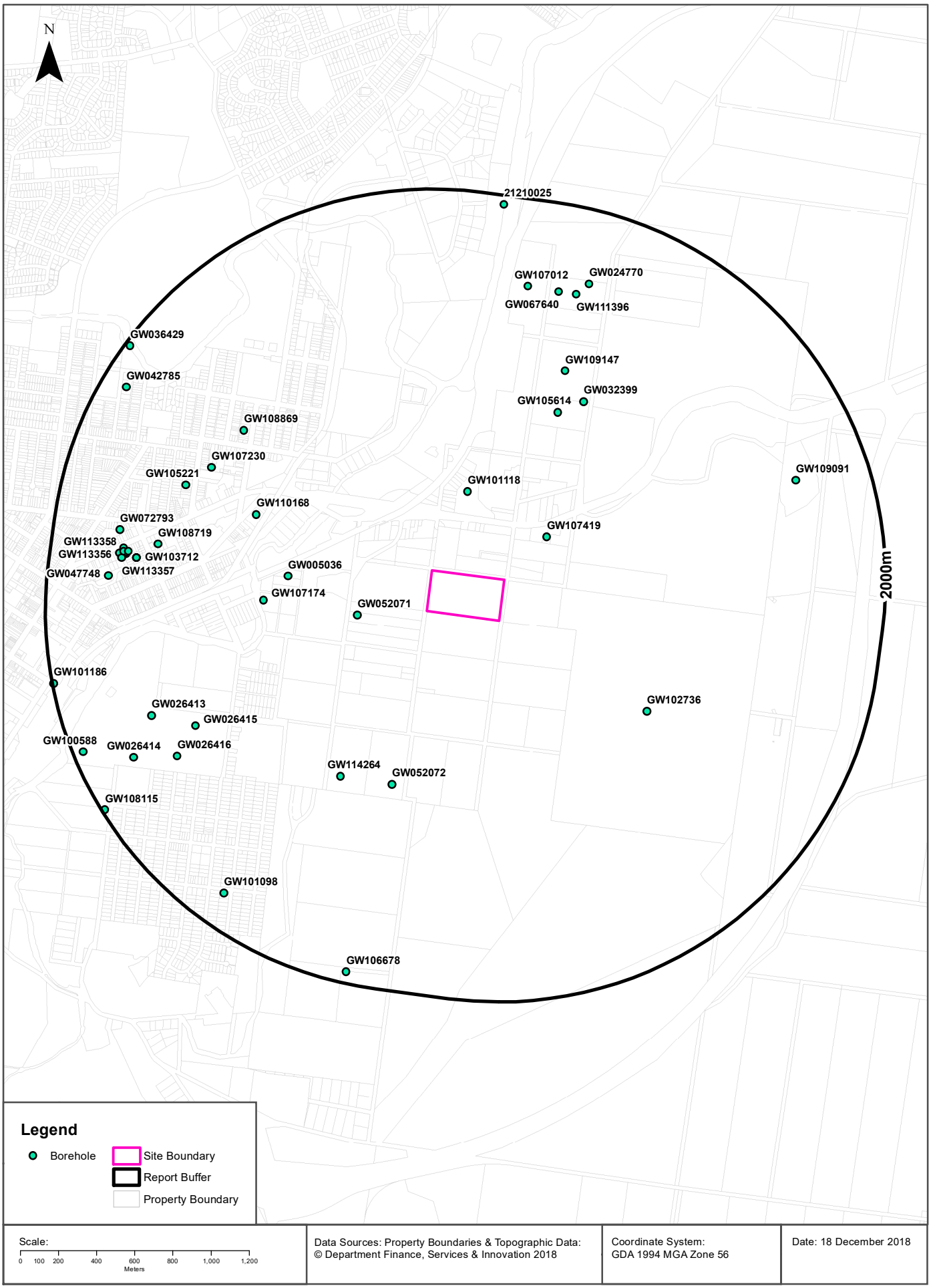
Groundwater management zones relating to the Botany Sand Beds aquifer within the dataset buffer:

Management Zone No.	Restriction	Distance	Direction
N/A	No records in buffer		

Botany Groundwater Management Zones Data Source : NSW Department of Primary Industries

Groundwater Boreholes

52 Sinclair Street, Goulburn, NSW 2580



Hydrogeology & Groundwater

52 Sinclair Street, Goulburn, NSW 2580

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW107419	10BL162839, 10WA115460	Bore	Private	Domestic	Domestic		29/01/2004	72.00	72.00	Good	14.00	1.100		317m	North East
GW052071	10BL115311, 10WA114963	Bore open thru rock	Private	Domestic, Stock	Domestic, Stock		01/08/1980	61.00	61.00	Good				364m	West
GW101118	10BL157902, 10WA115180	Bore	Private	Domestic	Domestic		11/02/1996	76.20	76.20	Good	4.60	0.030		435m	North
GW005036	10BL009039	Bore	Private	Domestic, Irrigation, Stock	Domestic, Irrigation, Stock		01/11/1958	18.30	18.30					744m	West
GW107174	10BL165078, 10WA115576	Bore	Private	Domestic	Domestic, Stock		05/04/2005	66.00	66.00		24.00	0.500		855m	West
GW102736	10BL157477	Bore		Monitoring Bore	Monitoring Bore		16/04/1998	40.00	40.00	416				911m	South East
GW105614	10BL161152, 10WA115343	Bore	Private	Domestic, Stock	Domestic, Stock		05/12/2002	37.00	37.00			0.632		921m	North East
GW052072	10BL111591, 10WA114948	Bore	Private	Domestic, Stock	Domestic, Stock		01/05/1980	53.30	53.30					927m	South
GW110168	10BL164784, 10BL603129, 10WA115801	Bore	Private	Domestic, Test Bore	Domestic		03/02/2005	171.00	171.00	1900	100.00	5.000		967m	West
GW114264	10BL604398, 10WA115961	Bore	Private	Domestic, Stock	Domestic, Stock		29/11/2013	54.00	54.00	Good		1.500		976m	South West
GW032399	40BL024918	Bore	Private	Stock	Stock			359.70		3001-7000 ppm				1022m	North East
GW109147	10BL165263, 10WA115599	Bore	Private	Domestic, Stock	Domestic, Stock		05/08/2008	102.00			52.00	0.200		1141m	North East
GW108869	10BL164747	Bore	Private	Test Bore	Test Bore		12/05/2008	80.00	80.00					1229m	North West
GW107230	10BL162982, 10WA115467	Bore	Private	Domestic	Domestic		23/10/2004	78.00	78.00		9.00	0.750		1275m	North West
GW026415	10BL018901	Bore	Private	Irrigation	Recreation (groundwater)		01/05/1966	17.70	17.70					1352m	South West
GW105221	10BL161202, 10WA115349	Bore	Private	Domestic	Domestic		05/03/2003	53.00	53.00		12.00	0.151		1366m	West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW108719	10BL601592, 10WA115714	Bore	Private	Domestic	Domestic		27/03/2008	30.00			9.00	0.750		1442m	West
GW026416	10BL017184	Bore	Private	Irrigation	Recreation (groundwater)		01/04/1966	11.30	11.30					1512m	South West
GW067640		Bore	Private		Domestic, Stock		14/02/1989	50.00	50.00					1537m	North
GW026413	10BL017186	Bore	Private	Irrigation	Recreation (groundwater)		01/05/1966	17.70	17.70					1542m	West
GW107012	10BL161185, 10WA115347	Bore	Private	Stock	Stock		06/04/2005	72.00	72.00			0.375		1542m	North
GW103709	10BL160100	Bore		Monitoring Bore	Monitoring Bore		23/11/2000	7.10	7.10					1543m	West
GW103712	10BL160100	Bore		Monitoring Bore	Monitoring Bore		23/11/2000	8.50	8.50					1543m	West
GW103711	10BL160100	Bore		Monitoring Bore	Monitoring Bore		23/11/2000	8.50	8.50					1543m	West
GW103710	10BL160100	Bore		Monitoring Bore	Monitoring Bore		23/11/2000	7.40	7.40					1543m	West
GW111396	10BL600863, 10WA115675	Bore	Private	Domestic	Domestic		04/12/2006	61.00	61.00					1545m	North
GW113360	10BL602399	Bore	Private	Monitoring Bore	Monitoring Bore	Shell	17/10/2006	9.00	9.00					1592m	West
GW105654	10BL161284	Bore	Private	Monitoring Bore	Monitoring Bore		19/11/2002	7.80	7.80		6.50			1603m	West
GW113359	10BL602399	Bore	Private	Monitoring Bore	Monitoring Bore	Shell	17/02/2006	8.70	8.70					1606m	West
GW105653	10BL161284	Bore	Private	Monitoring Bore	Monitoring Bore		19/11/2002	7.90	7.90		6.60			1614m	West
GW024770		Bore open thru rock	Private		Domestic, Stock		01/11/1973	42.10	42.10	Good				1615m	North
GW105655	10BL161284	Bore	Private	Monitoring Bore	Monitoring Bore		19/11/2002	8.00	8.00		6.10			1615m	West
GW109091	10BL164616	Bore	Private	Test Bore	Test Bore		22/07/2008	81.00	81.00					1617m	East
GW113358	10BL602399	Bore	Private	Monitoring Bore	Monitoring Bore	Shell	17/10/2006	8.40	8.40					1617m	West
GW113357	10BL602399	Bore	Private	Monitoring Bore	Monitoring Bore	Shell	18/10/2006	7.20	7.20					1622m	West
GW113356	10BL602399	Bore	Private	Monitoring Bore	Monitoring Bore	Shell	18/10/2006	9.50	9.50					1636m	West
GW072793		Bore	Private		Domestic		17/01/1995	24.40	24.40	Good				1650m	West
GW047748	10BL112567, 10WA116006	Bore	Private	Recreation (groundwater)	Recreation (groundwater)		01/04/1980	15.20	15.20	Fair				1678m	West
GW026414	10BL017185, 10CA115988	Bore	Private	Irrigation, Recreation (groundwater)	Recreation (groundwater)		01/05/1966	20.10	20.10					1717m	South West
GW101098	10BL157485, 10WA115165	Bore	Private	Domestic	Domestic		01/03/1996	99.00	99.00	Good	24.40	0.500		1820m	South West
GW042785	10BL105432, 10WA116008	Bore open thru rock	Private	Recreation (groundwater)	Recreation (groundwater)		01/09/1976	43.20	43.30	1001-3000 ppm				1867m	North West
GW106678	10BL160850, 10WA115324	Bore	Private	Domestic, Stock	Domestic, Stock		14/04/2004	54.00	54.00	Fair	30.00	0.875		1939m	South

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW100588	10BL152995, 10CA115988	Bore		Irrigation, Recreation (groundwater)	Recreation (groundwater)		31/12/1995	54.00	54.00			9.000		1946m	West
21210025					UNK								623.99	1952m	North
GW036429		Bore	Local Govt		G/water Xplore		01/03/1981	0.00	18.00					1973m	North West
GW108115	10BL164528, 10BL600181, 10WA116072	Bore		Recreation (groundwater), Test Bore	Recreation (groundwater)		25/10/2004	81.00	81.00			0.025		1983m	South West
GW101186	10BL157165, 10WA115976	Bore	Private	Recreation (groundwater)	Recreation (groundwater)		26/10/1997	91.00	91.00	522	6.00	10.000		1992m	West

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Hydrogeology & Groundwater

52 Sinclair Street, Goulburn, NSW 2580

Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW107419	0.00m-2.00m soil, clay 2.00m-26.00m limestone soft 26.00m-72.00m limestone hard	317m	North East
GW052071	0.00m-0.90m Loam Sandy 0.90m-23.50m Sand Gravel 23.50m-33.20m Sandstone 33.20m-43.60m Shale Hard 43.60m-61.00m Slate Water Supply	364m	West
GW101118	0.00m-0.30m Topsoil 0.30m-11.80m Clay 11.80m-45.70m Soft blue shale 45.70m-76.20m Hard white granite	435m	North
GW005036	0.00m-0.30m Soil Sandy 0.30m-2.13m Clay Yellow Gravel Sandy 2.13m-2.74m Silt Grey 2.74m-5.18m Clay Yellow Sandy Gravel 5.18m-5.79m Clay Plastic 5.79m-7.92m Sand Fine Gravel 7.92m-8.53m Sand Coarse Gravel Water Supply 8.53m-13.72m Volcanic Rock 13.72m-17.37m Volcanic Rock Greyish Speckled Broken Formation Water Supply 17.37m-18.29m Rock Grey Or Tuff Water Supply 17.37m-18.29m Clay Some Pink Bands	744m	West
GW107174	0.00m-8.00m clay 8.00m-30.00m shale, grey 30.00m-42.00m granite 42.00m-66.00m granite, grey	855m	West
GW102736	0.00m-1.00m COLLUVIUM 1.00m-5.00m SILT 5.00m-38.00m QUARTZITE 38.00m-40.00m SLATE	911m	South East
GW105614	0.00m-0.50m topsoil 0.50m-7.00m clay, brown 7.00m-12.00m shales, brown 12.00m-24.00m shales, brown yellow 24.00m-37.00m shales, blue	921m	North East
GW052072	0.00m-0.30m Topsoil 0.30m-7.60m Loam Sandy 7.60m-15.20m Sandstone 15.20m-25.00m Clay Black 25.00m-30.50m Sandstone 30.50m-34.40m Coal 34.40m-46.00m Clay Sandy 46.00m-53.30m Clay Black	927m	South
GW110168	0.00m-6.00m CLAY 6.00m-70.00m BROKEN GRANITE 70.00m-171.00m GRANITE	967m	West
GW114264	0.00m-3.00m SOIL,WEATHERED SEDIMENT 3.00m-19.00m SEDIMENT,BROWN AND WHITE,SOFT 19.00m-36.00m CLAY BROWN WEATHERED CLAYS 36.00m-54.00m SHALE,GREY AND BLACK SILTSTONES	976m	South West
GW108869	0.00m-1.00m TOPSOIL 1.00m-9.00m CLAY 9.00m-14.00m GRAVEL 14.00m-16.00m SOFT SHALE 16.00m-80.00m SHALE	1229m	North West

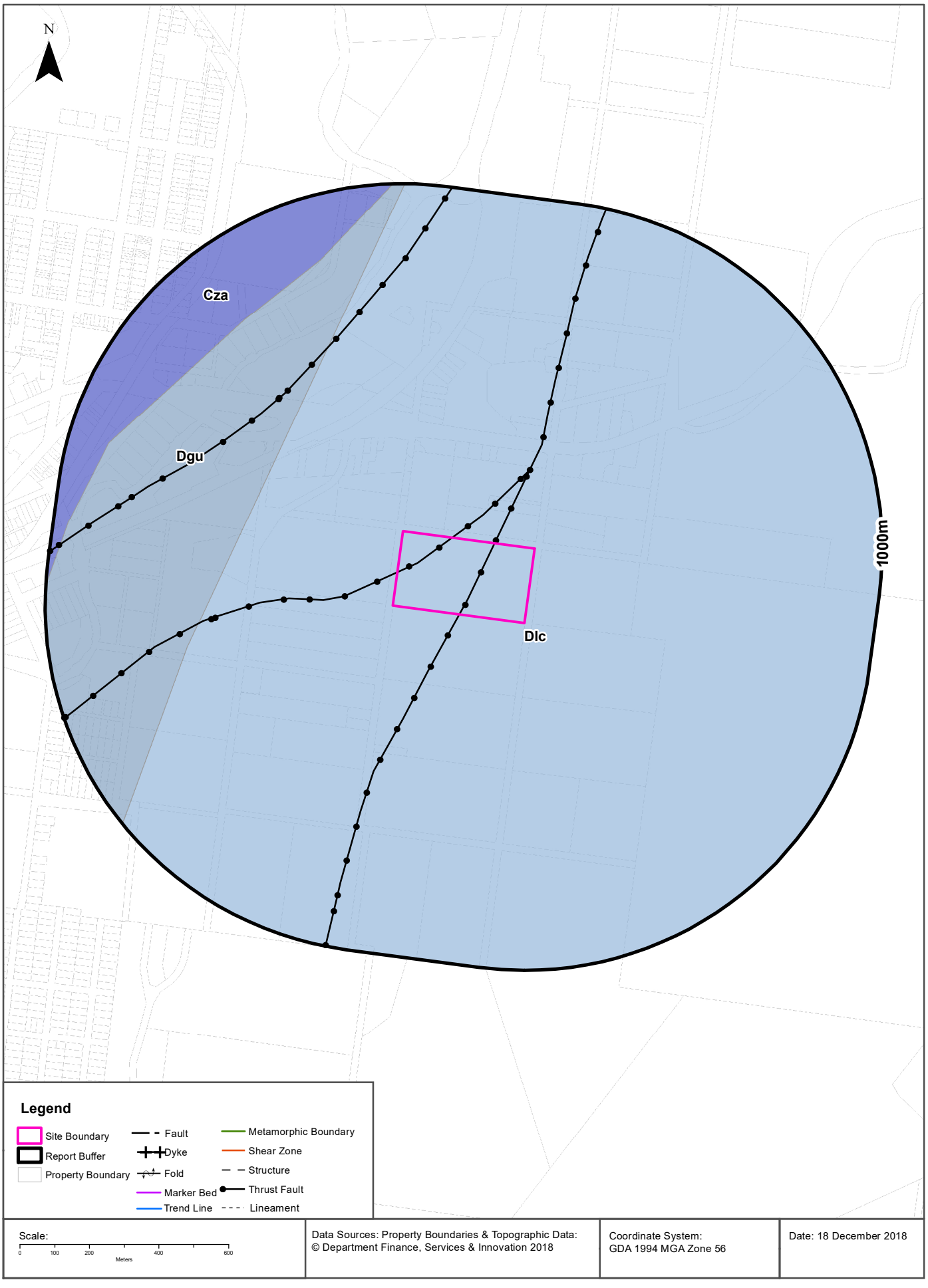
Groundwater No	Drillers Log	Distance	Direction
GW107230	0.00m-6.00m soil, stick brown clay 6.00m-13.00m volcanic, brown 13.00m-78.00m volcanic, grey blue hard	1275m	North West
GW026415	0.00m-1.83m Soil Silty 1.83m-4.27m Clay Grey 4.27m-6.10m Clay Moist Silt 6.10m-7.92m Clay Red Gravel Water Supply 7.92m-17.68m Rock Hard	1352m	South West
GW105221	0.00m-7.00m CLAY 7.00m-14.00m SOFT YELLOW CLAY 14.00m-16.00m WEATHERED GRANITE 16.00m-53.00m BLACK GRANITE	1366m	West
GW026416	0.00m-3.66m Sand Gravel 3.66m-6.71m Rock Water Supply 6.71m-11.28m Rock Hard	1512m	South West
GW067640	0.00m-1.00m T/s And Clay 1.00m-3.00m Dry Clay 3.00m-16.00m Soft Shale 16.00m-19.00m Hard Shale 19.00m-23.00m Soft Shale 23.00m-32.00m Grey Shale 32.00m-34.00m Weathered Shale 34.00m-49.00m Black Shale	1537m	North
GW026413	0.00m-1.52m Clay Sandy 1.52m-5.18m Clay Gravel 5.18m-7.92m Rock Soft Water Supply 7.92m-11.58m Rock Grey 11.58m-17.68m Rock Hard	1542m	West
GW107012	0.00m-6.00m clay, red 6.00m-18.00m clay, light brown 18.00m-36.00m clay, grey with shale 36.00m-48.00m shale, grey 48.00m-72.00m slate, black	1542m	North
GW103709	0.00m-0.70m FILL 0.70m-1.20m CLAY LOAM 1.20m-2.00m MEDIUM CLAY,ORANGE 2.00m-4.00m MEDIUM CLAY,ORANGE,VERY FIRM 4.00m-4.60m CLAYEY SAND 4.60m-5.00m BOULDER LARGE 5.00m-5.80m CLAYEY SAND/SANDY CLAY 5.80m-6.00m BOULDER LARGE 6.00m-7.10m CLAYEY SAND/SANDY CLAY,ORANGE	1543m	West
GW103710	0.00m-0.40m BITUMEN/FILL 0.40m-1.80m MEDIUM CLAY,ORANGE 1.80m-3.70m MEDIUM CLAY/ORANGE/BROWN 3.70m-4.40m MEDIUM CLAY:ORANGE/BROWN/MOIST 4.40m-7.40m CLAYEY SAND:ORANGE/BROWN/MOIST	1543m	West
GW103711	0.00m-0.10m FILL: BITUMEN 0.10m-0.60m CLAY LOAM 0.60m-1.20m MEDIUM CLAY 1.20m-4.00m MEDIUM CLAY:ORANGE 4.00m-8.50m CLAYEY SAND/SANDY CLAY:ORANGE	1543m	West
GW103712	0.00m-0.10m CONCRETE 0.10m-0.30m FILL 0.30m-0.70m CLAY LOAM 0.70m-1.40m LIGHT CLAY:ORANGE 1.40m-2.80m MEDIUM CLAY,RED AND GREY 2.80m-4.00m MEDIUM CLAY, BROWN AND GREY 4.00m-8.50m CLAYEY SAND/SANDY CLAY	1543m	West
GW105654	0.00m-2.50m CLAY, SILTY, BROWN, MOSIT, FIRM 2.50m-3.80m AS ABOVE BUT STIFF, MODERATE PLASTICITY 3.80m-4.20m CLAY, SILTY, BERY STIFF, NON PLASTIC 4.20m-7.00m CLAY, GRAVEL, NON PLASTIC 7.00m-7.80m SAME AS ABOVE, WET	1603m	West

Groundwater No	Drillers Log	Distance	Direction
GW105653	0.00m-0.10m TOPSOIL, SILTY CLAY 0.10m-1.00m CLAY, SILTY DRY, GRAVELLY,LOOSE 1.00m-2.00m CLAY, BROWN, MOIST, FIRM 2.00m-3.00m CLAY, GREY, MOIST, FIRM 3.00m-4.30m CLAY, SILTY , GREY, DAMP, STIFF 4.30m-6.00m CLAY, GRAVELS, VERY STIFF, MOIST 6.00m-7.00m CLAY, GRAVELLY, WET, BROWN 7.00m-7.90m AS ABOVE	1614m	West
GW024770	0.00m-0.30m Topsoil 0.30m-3.66m Clay 3.66m-20.42m Sandstone Fractured 20.42m-31.70m Chert Bands 31.70m-42.06m Sandstone Fissure Water Supply 42.06m-42.08m Claystone Black Sandstone	1615m	North
GW105655	0.00m-2.50m clay, brown, moderate plasticity 2.50m-4.00m clay, silty, firm, grey 4.00m-4.10m as above 4.10m-7.00m clay, gravel, non plastic 7.00m-8.00m as above, but wet gravel	1615m	West
GW109091	0.00m-1.00m TOPSOIL 1.00m-2.00m CLAY 2.00m-58.00m SOFT SHALE 58.00m-81.00m SHALE	1617m	East
GW072793	0.00m-0.30m Topsoil 0.30m-6.10m Clay Weathered Rock 6.10m-24.40m Hard Weathered Rock	1650m	West
GW047748	0.00m-0.60m Soil 0.60m-3.00m Clay 3.00m-12.00m Gravel River Water Supply 12.00m-15.24m Granite	1678m	West
GW026414	0.00m-4.88m Clay Sandy 4.88m-8.84m Clay Sandy Gravel Water Supply 8.84m-10.97m Rock 10.97m-12.80m Rock Grey 12.80m-15.24m Rock Green Hard 15.24m-20.12m Rock Grey	1717m	South West
GW101098	0.00m-0.30m Top soil 0.30m-99.00m Hard sandstone	1820m	South West
GW042785	0.00m-0.30m Topsoil 0.30m-1.52m Clay 1.52m-6.40m Clay Sand 6.40m-13.41m Clay Gravel Water Supply 13.41m-43.28m Limestone Water Supply	1867m	North West
GW106678	0.00m-0.40m soil 0.40m-9.00m clays, brown 9.00m-34.00m volcanic, weathered 34.00m-54.00m volcanic, fractured	1939m	South
GW036429	0.00m-0.40m Topsoil 0.40m-4.00m Clay Yellow Grey 4.00m-6.00m Clay Sandy 6.00m-9.00m Gravel Large Sand Water Supply 9.00m-10.00m Clay Silty Stones Water Supply 10.00m-11.00m Gravel Large Clay Bands Water Bearing 11.00m-12.00m Clay Grey 12.00m-17.00m Gravel Large Clay Bands Water Bearing 17.00m-18.00m Shale Grey Sandy	1973m	North West
GW108115	0.00m-1.00m TOPSOIL 1.00m-5.00m CLAY 5.00m-11.50m GRAVEL 11.50m-54.00m HARD GREY SHALE 54.00m-81.00m HARD BLACK SHALE	1983m	South West
GW101186	0.00m-1.00m carpark fill 1.00m-11.00m red clay river gravel 11.00m-12.00m river gravel 12.00m-28.00m highly fractured to decomposing granite 28.00m-42.00m fractured green granite 42.00m-91.00m green granite with slight fractures	1992m	West

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
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Geology 1:250,000

52 Sinclair Street, Goulburn, NSW 2580



Geology

52 Sinclair Street, Goulburn, NSW 2580

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Dlc	Quartzite, sandstone, conglomerate	Cookbundoon Sandstone	Lambie Group		Palaeozoic			1:250,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Cza	Cainozoic alluvium: gravel, sand	undifferentiated			Cainozoic			1:250,000
Dgu	Siltstone, sandstone, dacite, andesite, conglomerate, tuff, felsite, porphyry, claystone	Gundary beds			Palaeozoic			1:250,000
Dlc	Quartzite, sandstone, conglomerate	Cookbundoon Sandstone	Lambie Group		Palaeozoic			1:250,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault	Mulwaree Fault	Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault	Mulwaree Fault	Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000
Thrust Fault		Thrust fault - concealed	Goldburn	1:250,000

Geological Data Source : NSW Department of Industry, Resources & Energy

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Naturally Occurring Asbestos Potential

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Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Soil Landscapes

52 Sinclair Street, Goulburn, NSW 2580



Soils

52 Sinclair Street, Goulburn, NSW 2580

Soil Landscapes

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
SHbl	BULLAMALITA	SOLOTHS		Goulburn	1:250,000

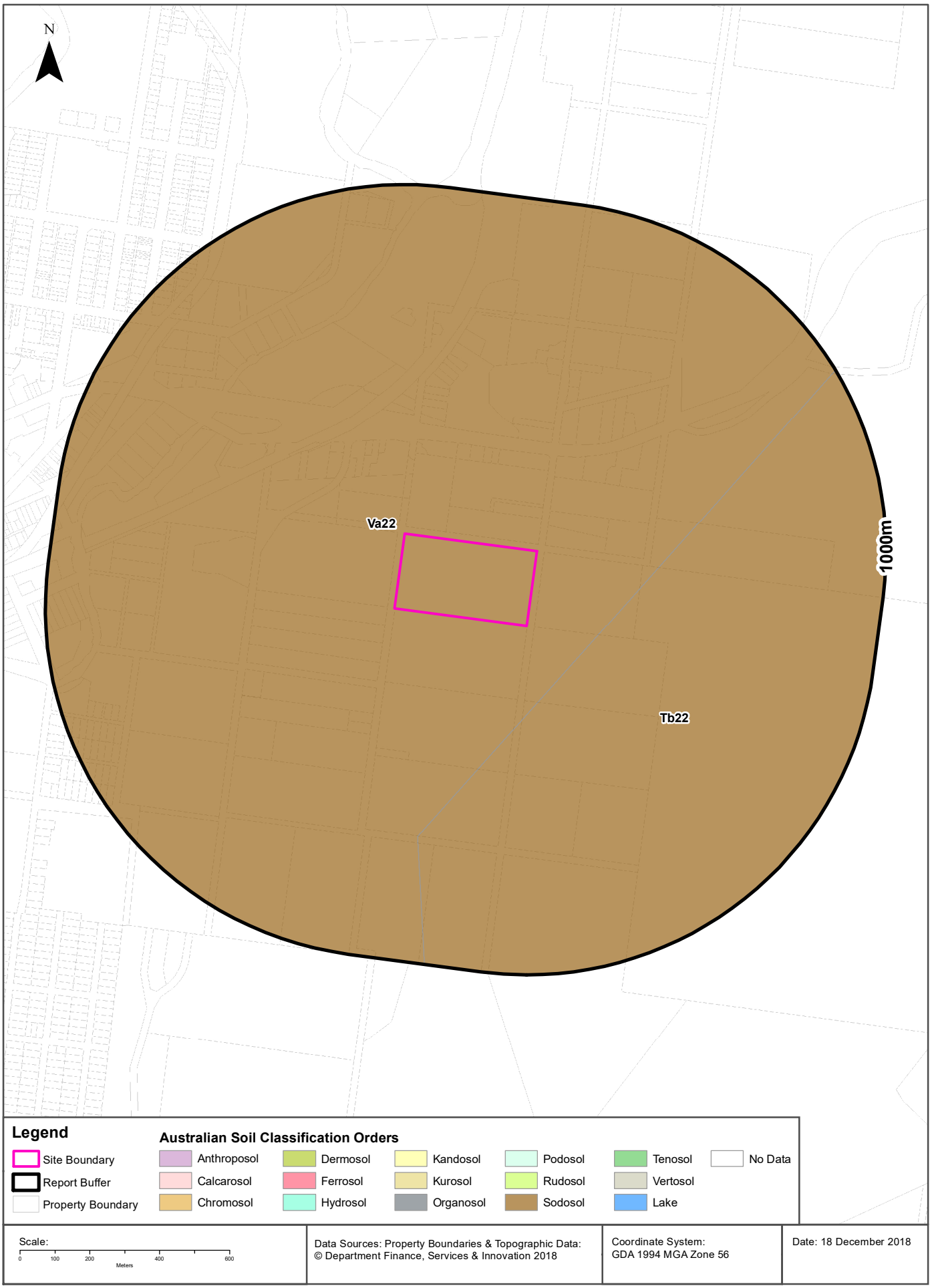
What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
Ago	GOULBURN	ALLUVIAL SOILS		Goulburn	1:250,000
SHbl	BULLAMALITA	SOLOTHS		Goulburn	1:250,000
YEmi	MIDGEE	YELLOW EARTHS		Goulburn	1:250,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage
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Atlas of Australian Soils

52 Sinclair Street, Goulburn, NSW 2580



Soils

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Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance
Va22	Sodosol	Valley plain: chief soils are hard alkaline yellow and yellow mottled soils (Dy2.43) and (Dy3.43). Associated are various soils, notably (Gn2.95), also (Ug5.16) and (Gn2.1), with some (Um) soils close to the stream.	0m
Tb22	Sodosol	Hilly to steep hilly ranges with rock outcrops: chief soils are shallow stony hard acidic yellow mottled soils (Dy3.41), (Dy3.21), with (Dr2) and (Um4.1) soils. As mapped, areas of unit Ub39 are included. Data are limited.	168m

Atlas of Australian Soils Data Source: CSIRO
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Acid Sulfate Soils

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Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI
N/A		

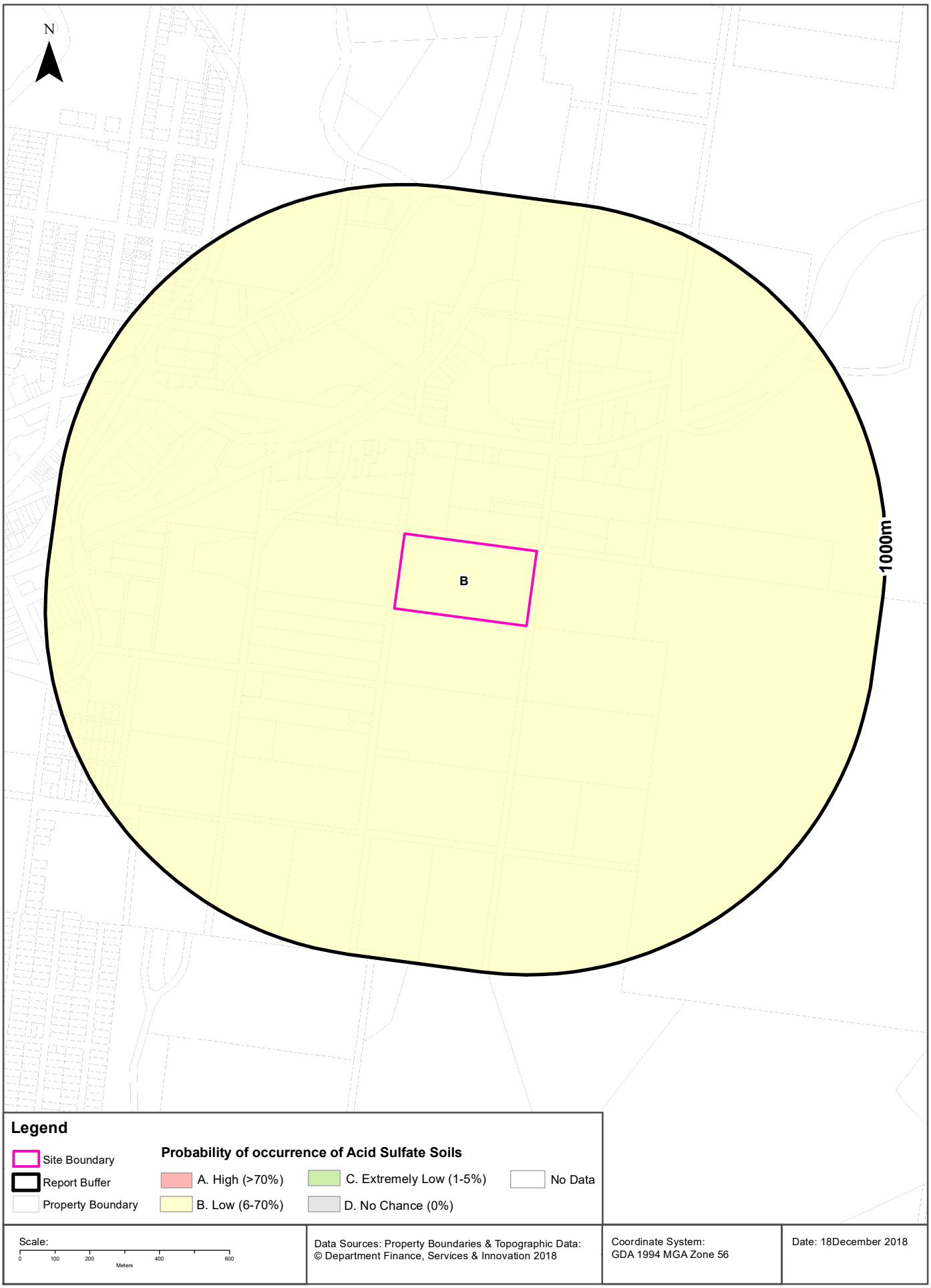
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI	Distance	Direction
N/A				

Acid Sulfate Data Source Accessed 23/10/2018: NSW Crown Copyright - Planning and Environment
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Atlas of Australian Acid Sulfate Soils

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Acid Sulfate Soils

52 Sinclair Street, Goulburn, NSW 2580

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO
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Dryland Salinity

52 Sinclair Street, Goulburn, NSW 2580

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A	N/A	N/A

Dryland Salinity Data Source : National Land and Water Resources Audit
The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.
In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
N/A	Outside Data Coverage			

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage
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Mining Subsidence Districts

52 Sinclair Street, Goulburn, NSW 2580

Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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Environmental Zoning

52 Sinclair Street, Goulburn, NSW 2580

State Environmental Planning Policy Protected Areas

Are there any State Environmental Planning Policy Protected Areas onsite or within the dataset buffer?

Dataset	Onsite	Within Site Buffer	Distance
SEPP14 - Coastal Wetlands	No	No	N/A
SEPP26 - Littoral Rainforests	No	No	N/A
SEPP71 - Coastal Protection Zone	No	No	N/A

SEPP Protected Areas Data Source: NSW Department of Planning & Environment
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State Environmental Planning Policy Major Developments (2005)

State Environmental Planning Policy Major Developments within the dataset buffer:

Map Id	Feature	Effective Date	Distance	Direction
N/A	No records within buffer			

SEPP Major Development Data Source: NSW Department of Planning & Environment
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State Environmental Planning Policy Strategic Land Use Areas

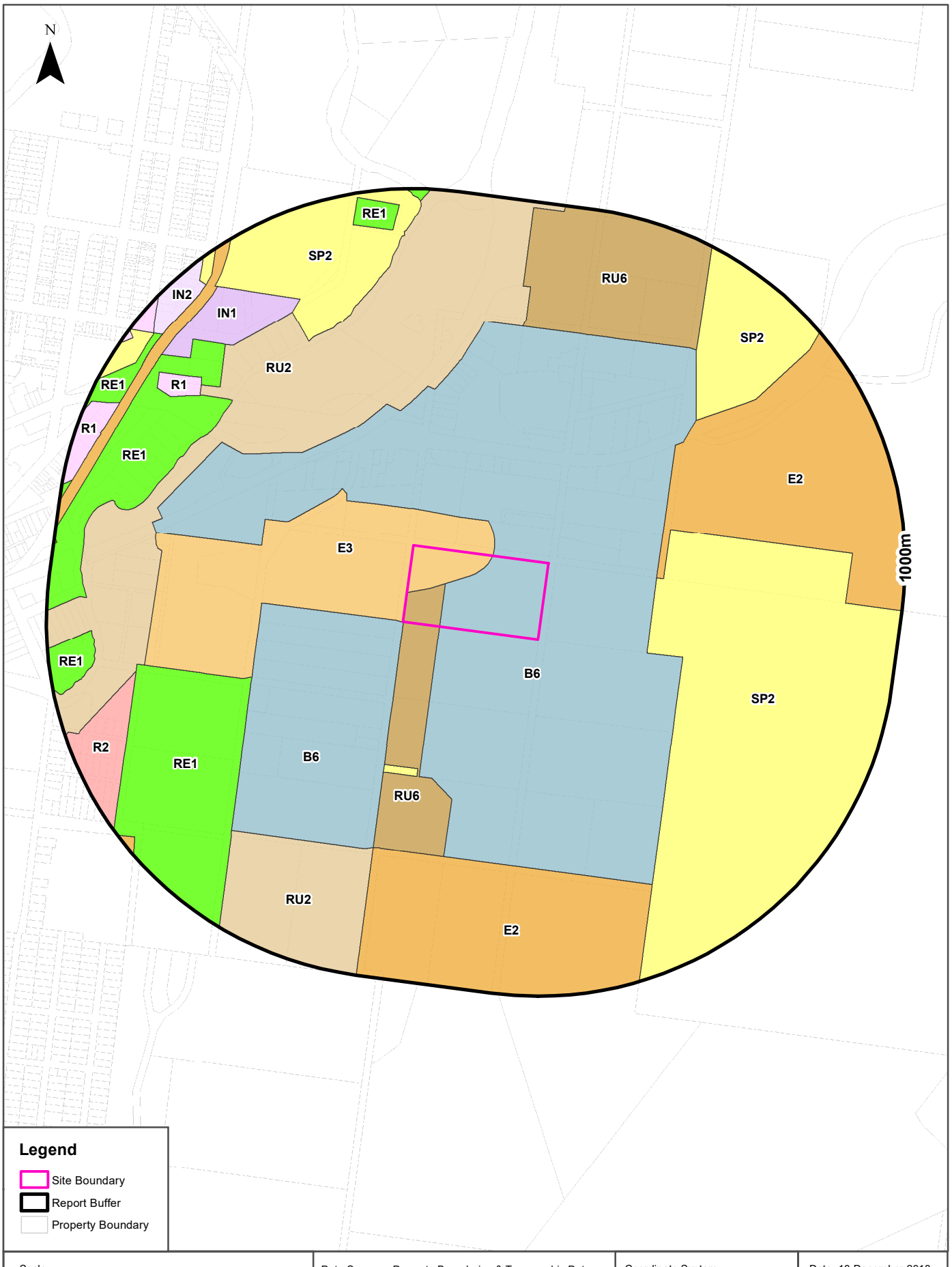
State Environmental Planning Policy Strategic Land Use Areas onsite or within the dataset buffer:

Strategic Land Use	SEPPNo	Effective Date	Amendment	Amendment Year	Distance	Direction
No records within buffer						

SEPP Strategic Land Use Data Source: NSW Department of Planning & Environment
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EPI Planning Zones

52 Sinclair Street, Goulburn, NSW 2580



Scale: 0 100 200 400 600 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2018 Planning: NSW Crown Copyright - Planning & Environment	Coordinate System: GDA 1994 MGA Zone 56	Date: 18 December 2018

Environmental Planning Instrument

52 Sinclair Street, Goulburn, NSW 2580

Land Zoning

What Environmental Planning Instrument Land Zones exist within the dataset buffer?

Zone	Description	Purpose	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
B6	Enterprise Corridor		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		0m	Onsite
E3	Environmental Management		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		0m	Onsite
RU6	Transition		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		0m	Onsite
E2	Environmental Conservation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		304m	East
SP2	Infrastructure	Waste Management Facility	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		304m	South East
RU2	Rural Landscape		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		368m	North
SP2	Infrastructure	Cemetery	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		403m	South West
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		452m	South West
SP2	Infrastructure	Cemetery	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		576m	North East
E2	Environmental Conservation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		638m	South
RU2	Rural Landscape		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		638m	South West
SP2	Infrastructure	Correctional Centre	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		643m	North
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		648m	West
RU6	Transition		Goulburn Mulwaree Local Environmental Plan 2009	13/07/2012	13/07/2012	07/09/2018	Amendment No 2	650m	North
R1	General Residential		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		733m	North West
IN1	General Industrial		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		736m	North West
R2	Low Density Residential		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		762m	South West
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		867m	West
E2	Environmental Conservation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		884m	North West
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		885m	North
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		912m	North West
R1	General Residential		Goulburn Mulwaree Local Environmental Plan 2009	19/10/2012	19/10/2012	07/09/2018	Amendment No 3	916m	West
IN2	Light Industrial		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		919m	North West
SP2	Infrastructure	School	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		932m	North West
E2	Environmental Conservation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		964m	South West
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		966m	North
RE1	Public Recreation		Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		974m	West

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Environmental Planning Instrument

52 Sinclair Street, Goulburn, NSW 2580

Minimum Lot Size

What are the onsite Environmental Planning Instrument Minimum Lot Sizes?

Symbol	Minimum Lot Size	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
AD	100 ha	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	07/09/2018		23.55

Maximum Height of Buildings

What are the onsite Environmental Planning Instrument Maximum Height of Buildings?

Symbol	Maximum Height of Building	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
No Data							

Floor Space Ratio

What are the onsite Environmental Planning Instrument Floor Space Ratios?

Symbol	Floor Space Ratio	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
10	0.80	LEP	13/03/2009	13/03/2009	13/03/2009		76.7

Land Application

What are the onsite Environmental Planning Instrument Land Applications?

Application Type	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Percentage of Site Area
Included	Goulburn Mulwaree Local Environmental Plan 2009	08/11/2013	08/11/2013	08/11/2013	Amendment No 4	100

Land Reservation Acquisition

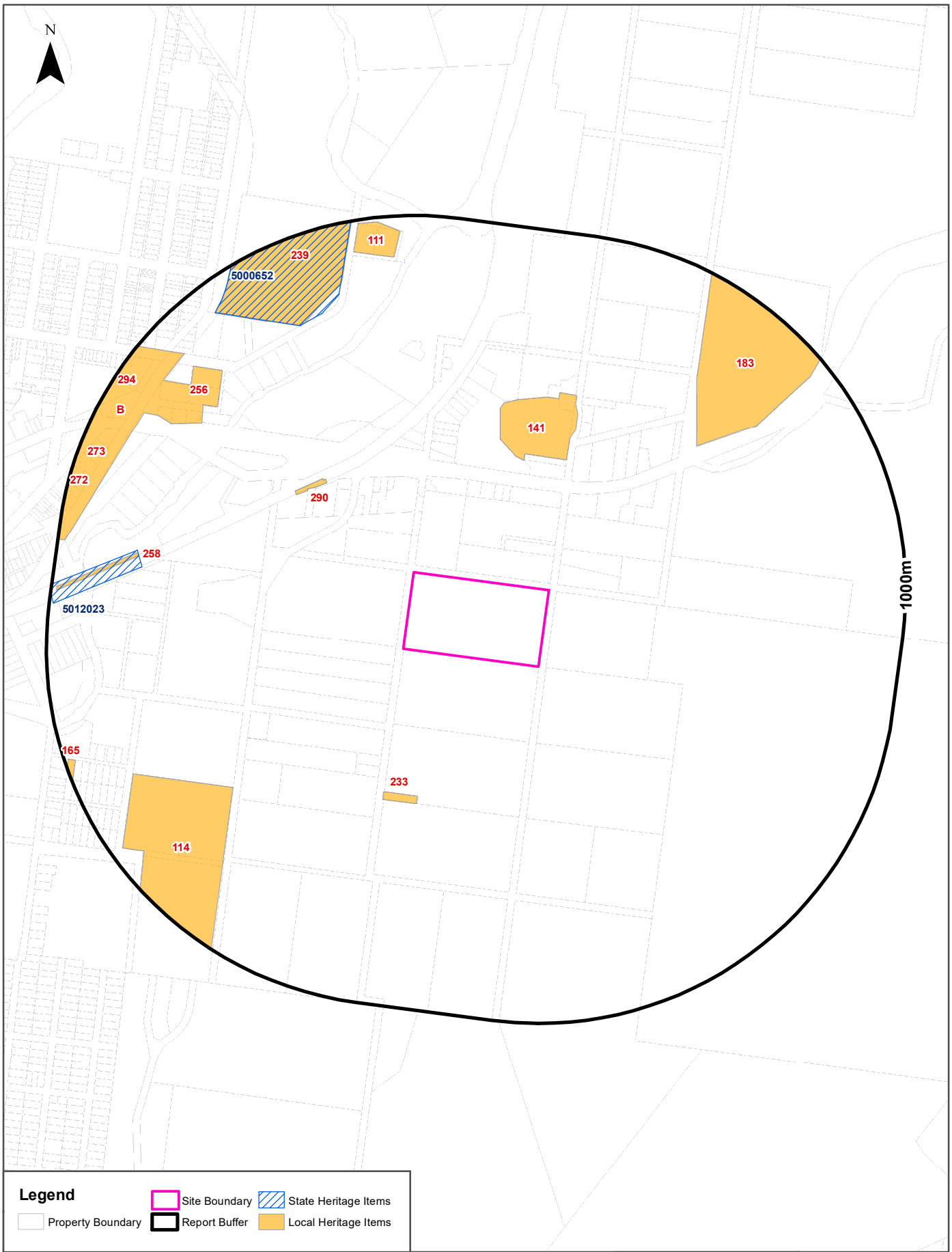
What are the onsite Environmental Planning Instrument Land Reservation Acquisitions?

Reservation	LEP or SEPP	Published Date	Commenced Date	Currency Date	Amendment	Comments	Percentage of Site Area
No Data							

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Heritage Items

52 Sinclair Street, Goulburn, NSW 2580



Heritage

52 Sinclair Street, Goulburn, NSW 2580

State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5012023	Goulburn Viaduct (Mulwaree Ponds)	Main Southern railway, Goulburn	Goulburn Mulwaree	02/04/1999	01035	2968	756m	West
5000652	Goulburn Correctional Centre complex	Maud Street (off), Goulburn	Goulburn Mulwaree	02/04/1999	00808	2507	760m	North West

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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

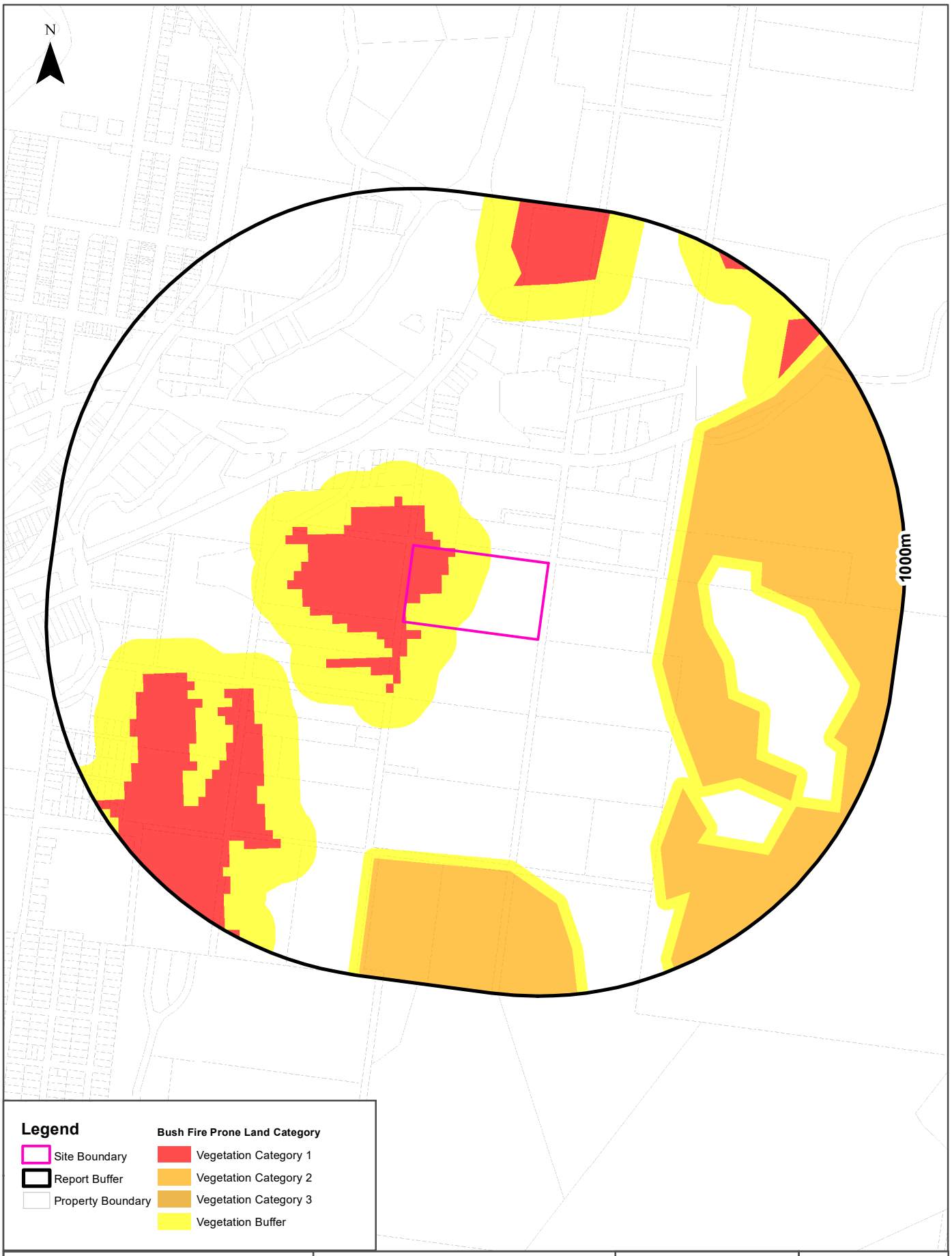
Map Id	Name	Classification	Significance	EPI	Published Date	Commenced Date	Currency Date	Distance	Direction
290	Dwelling, Railway Gatehouse, Victorian and Gothic (1867)	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	351m	North West
141	Brick Works, Chimneys, Kilns, Dwelling, 'The Potteries' (c 1985)	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	352m	North
233	Jewish Cemetery, Foundations of Caretaker's Cottage, Chapel, Filled Well	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	404m	South West
183	Goulburn General Cemetery, Lychgate	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	578m	North East
114	Rocky Hill Memorial (1925)	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	616m	South West
256	Mortis Street Cemetery	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	720m	North West
B	Goulburn City Conservation Area	Conservation Area - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	720m	West
239	Goulburn Gaol, Victorian Classical Revival (c 1883)	Item - General	State	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	759m	North West
258	Railway Viaduct Crossing Mulwaree Ponds	Item - General	State	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	771m	West
111	St Saviours Cemetery	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	885m	North
273	Dwellings, Georgian (c 1856'59)	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	925m	North West
294	Goulburn North Public School (1876)	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	934m	North West

Map Id	Name	Classification	Significance	EPI	Published Date	Commenced Date	Currency Date	Distance	Direction
272	Dwelling (former Post Office), Southern Star Hotel, Two Storey (c 1860), Coach House	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	943m	West
165	Dwelling, Cottage	Item - General	Local	Goulburn Mulwaree Local Environmental Plan 2009	13/03/2009	13/03/2009	27/07/2018	971m	West

Heritage Data Source: NSW Crown Copyright - Planning & Environment
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Natural Hazards - Bush Fire Prone Land

52 Sinclair Street, Goulburn, NSW 2580



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2018. Property Boundaries: © Department Finance, Services & Innovation 2018

Coordinate System: GDA 1994 MGA Zone 56

Date: 18 December 2018

Natural Hazards

52 Sinclair Street, Goulburn, NSW 2580

Bush Fire Prone Land

What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	0m	Onsite
Vegetation Category 1	0m	Onsite
Vegetation Category 2	352m	South East

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

Ecological Constraints - Vegetation of the Southern Forests

52 Sinclair Street, Goulburn, NSW 2580



Ecological Constraints

52 Sinclair Street, Goulburn, NSW 2580

Vegetation of the Southern Forests

What vegetation of the Southern Forests exists within the dataset buffer?

Map Id	Veg Code	Formation	Class	Group	Distance	Direction
9167	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	274m	East
9111	194	05 Dry Grass/Shrub Forests	05e ST/CT Moist Grass/Shrub Forests	North East Riparian Forest	395m	East
9260	15	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	NE Southern Tablelands Dry Shrub Forest	458m	South West
9381	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	467m	South
9202	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	484m	South East
9282	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	570m	East
9251	194	05 Dry Grass/Shrub Forests	05e ST/CT Moist Grass/Shrub Forests	North East Riparian Forest	630m	South East
8979	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	746m	North
9012	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	861m	North East
9006	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	890m	North East
9203	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	922m	South West
9330	113	05 Dry Grass/Shrub Forests	07g North-eastern ST Dry Shrub Forests	North East Southern Tablelands Dry Shrub-Grass Forest	939m	South West

Vegetation of the Southern Forests: NSW Office of Environment and Heritage
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Ramsar Wetlands

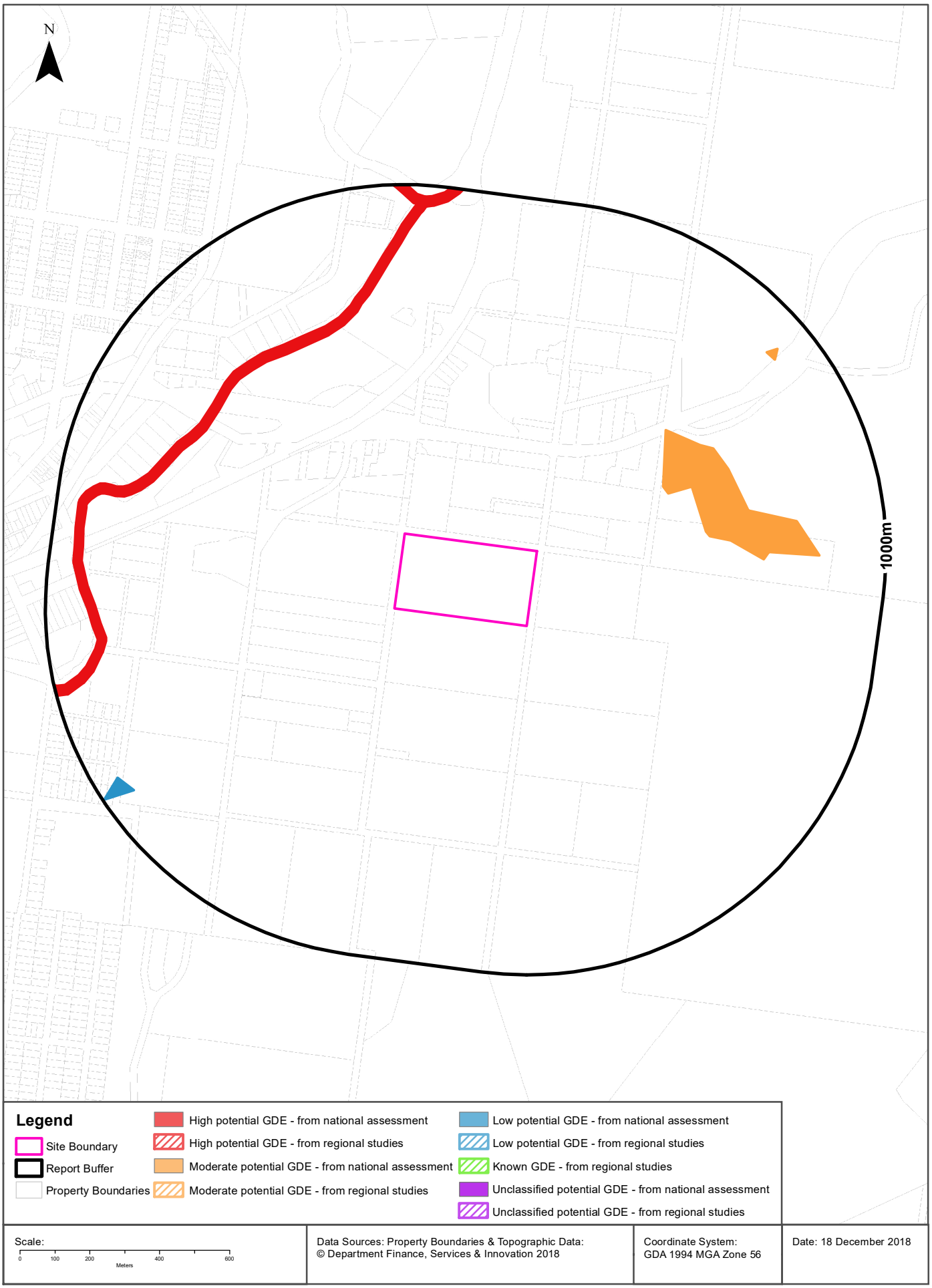
What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Environment

Ecological Constraints - Groundwater Dependent Ecosystems Atlas

52 Sinclair Street, Goulburn, NSW 2580



Ecological Constraints

52 Sinclair Street, Goulburn, NSW 2580

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	Moderate potential GDE - from national assessment	Upland plains with separating strike-aligned hills, closed lake basins.	Vegetation		405m
Aquatic	High potential GDE - from national assessment	Upland plains with separating strike-aligned hills, closed lake basins.	River		607m
Terrestrial	Low potential GDE - from national assessment	Upland plains with separating strike-aligned hills, closed lake basins.	Vegetation		910m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

52 Sinclair Street, Goulburn, NSW 2580



Ecological Constraints

52 Sinclair Street, Goulburn, NSW 2580

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	4	Upland plains with separating strike-aligned hills, closed lake basins.	Vegetation		405m
Aquatic	7	Upland plains with separating strike-aligned hills, closed lake basins.	River		607m
Terrestrial	8	Upland plains with separating strike-aligned hills, closed lake basins.	Vegetation		870m
Terrestrial	7	Upland plains with separating strike-aligned hills, closed lake basins.	Vegetation		910m
Aquatic	10	Upland plains with separating strike-aligned hills, closed lake basins.	River		939m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

52 Sinclair Street, Goulburn, NSW 2580

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Delma impar	Striped Legless Lizard	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Bossiaea oligosperma	Few-seeded Bossiaea	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Diuris aequalis	Buttercup Doubletail	Endangered	Category 2	Vulnerable	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Leucochrysum albicans subsp. tricolor	Hoary Sunray	Not Listed	Not Sensitive	Endangered	
Plantae	Flora	Leucochrysum albicans var. tricolor	Hoary Sunray	Not Listed	Not Sensitive	Endangered	
Plantae	Flora	Pomaderris delicata	Delicate Pomaderris	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Rutidosis leptorrhynchoides	Button Wrinklewort	Endangered	Not Sensitive	Endangered	

Data does not include NSW category 1 sensitive species.
NSW BioNet: © State of NSW and Office of Environment and Heritage
Data obtained 18/12/2018

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Appendix B
SITE PHOTOGRAPHS

Appendix B

	**Plate 1** **Description:** Southern boundary of the Site, looking west. **Date:** 15/01/2019
	**Plate 2** **Description:** T-intersection of the roads onsite. Looking west. **Date:** 15/01/2019

Appendix B

	**Plate 3** **Description:** T-intersection of the roads onsite. Looking west. **Date:** 15/01/2019
	**Plate 4** **Description:** Large dam/sedimentation pond located in the south west portion of the Site. **Date:** 15/01/2019

	**Plate 5** **Description:** Typical soil profile encountered onsite consisting of topsoil, subsoil (clayey sand) and residual sandy clay. Photo taken from TP19. **Date:** 15/01/2019

	**Plate 6** **Description:** Looking south east at the Site from the hill in the north west corner. **Date:** 16/01/2019
	**Plate 7** **Description:** Looking east at the Site from the hill in the north west corner. **Date:** 16/01/2019

	**Plate 7** **Description:** Rabbit burrows observed in the northern portion of the Site. **Date:** 16/01/2019
	**Plate 8** **Description:** Rabbit burrows observed in the northern portion of the Site. **Date:** 16/01/2019

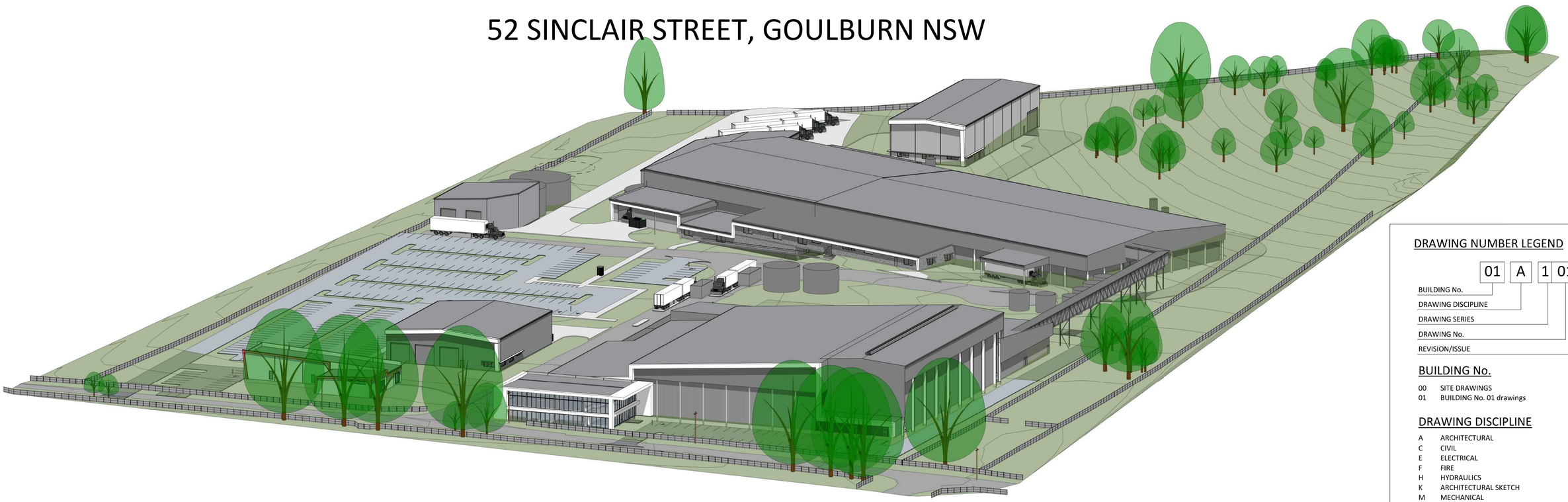
	**Plate 9** **Description:** The proposed Guthrie Road, looking north from the southern Site boundary. **Date:** 15/01/2019
	**Plate 10** **Description:** Stormwater drain, collecting water from the Site and discharging into the dam/sedimentation pond. **Date:** 15/01/2019

	**Plate 11** **Description:** The proposed child care facility location looking south from the entry road. **Date:** 15/01/2019
	**Plate 12** **Description:** Stormwater diversion drain (spoon drain) located in the western portion of the Site draining into the dam/sedimentation pond. **Date:** 15/01/2019

Appendix C
PROPOSED DEVELOPMENT PLANS

PROPOSED PROCESSING FACILITY FOR WOODLANDS RIDGE POULTRY PTY LTD

52 SINCLAIR STREET, GOULBURN NSW



DRAWING NUMBER LEGEND

01	A	1	01	-1
BUILDING No.	DRAWING DISCIPLINE	DRAWING SERIES	DRAWING No.	REVISION/ISSUE

BUILDING No.

00	SITE DRAWINGS
01	BUILDING No. 01 drawings

DRAWING DISCIPLINE

A	ARCHITECTURAL
C	CIVIL
E	ELECTRICAL
F	FIRE
H	HYDRAULICS
K	ARCHITECTURAL SKETCH
M	MECHANICAL
P	PROCESS SKETCH
R	REFRIGERATION
S	STRUCTURAL
X	EXISTING
D	DEMOLITION

DRAWING SERIES

000	SITE & SITEWORKS
100	PLANS
200	ELEVATIONS
300	SECTIONS
400	PART SECTIONS
500	CONSTRUCTION DETAILS
600	TRADE SPECIFIC
700	DETAILED AREAS
800	SPARE
900	SCHEDULES

DRAWING ISSUE / REVISION

1, 2, 3....	DRAWING ISSUE / REVISION

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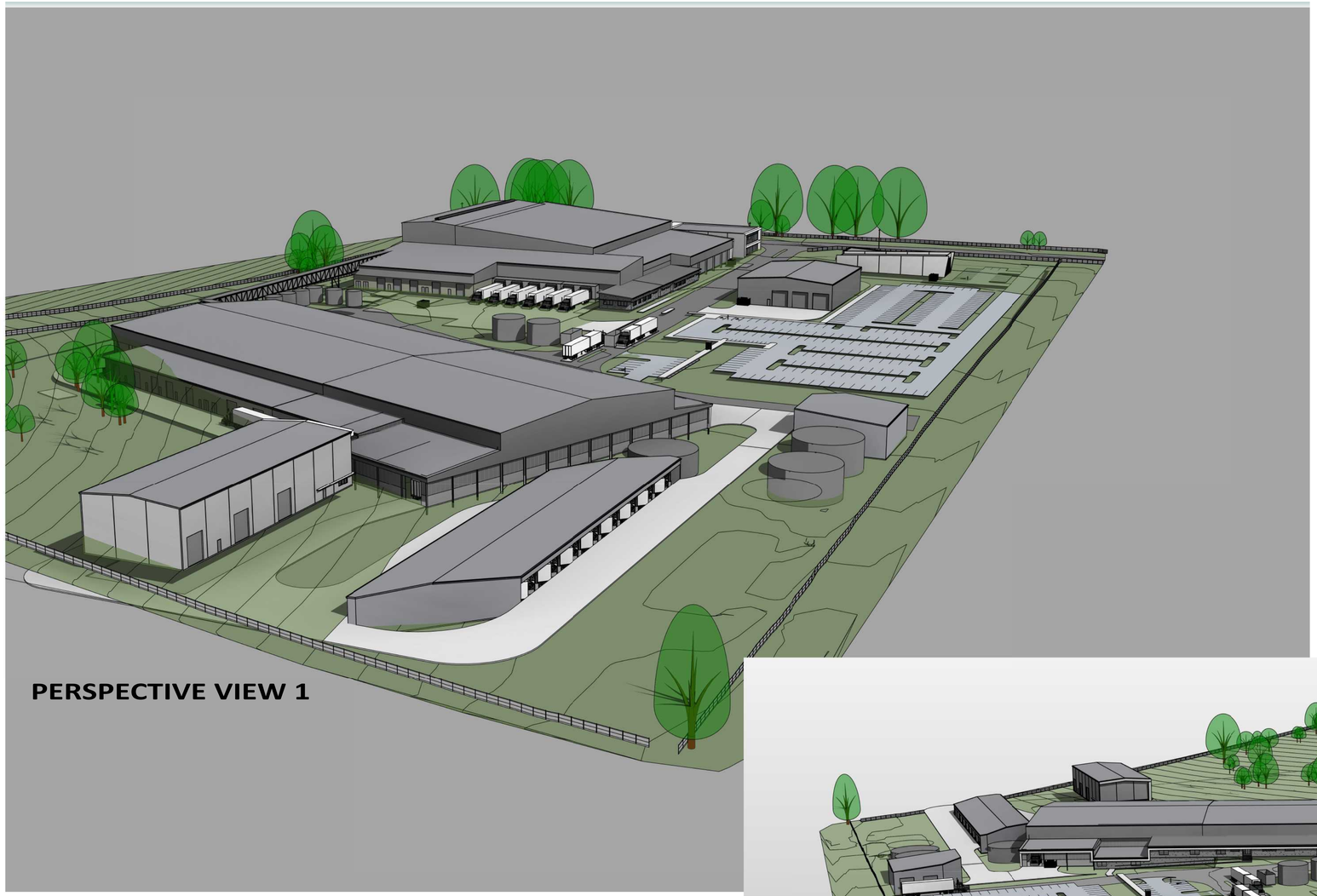
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WOODLANDS RIDGE POULTRY PTY LTD

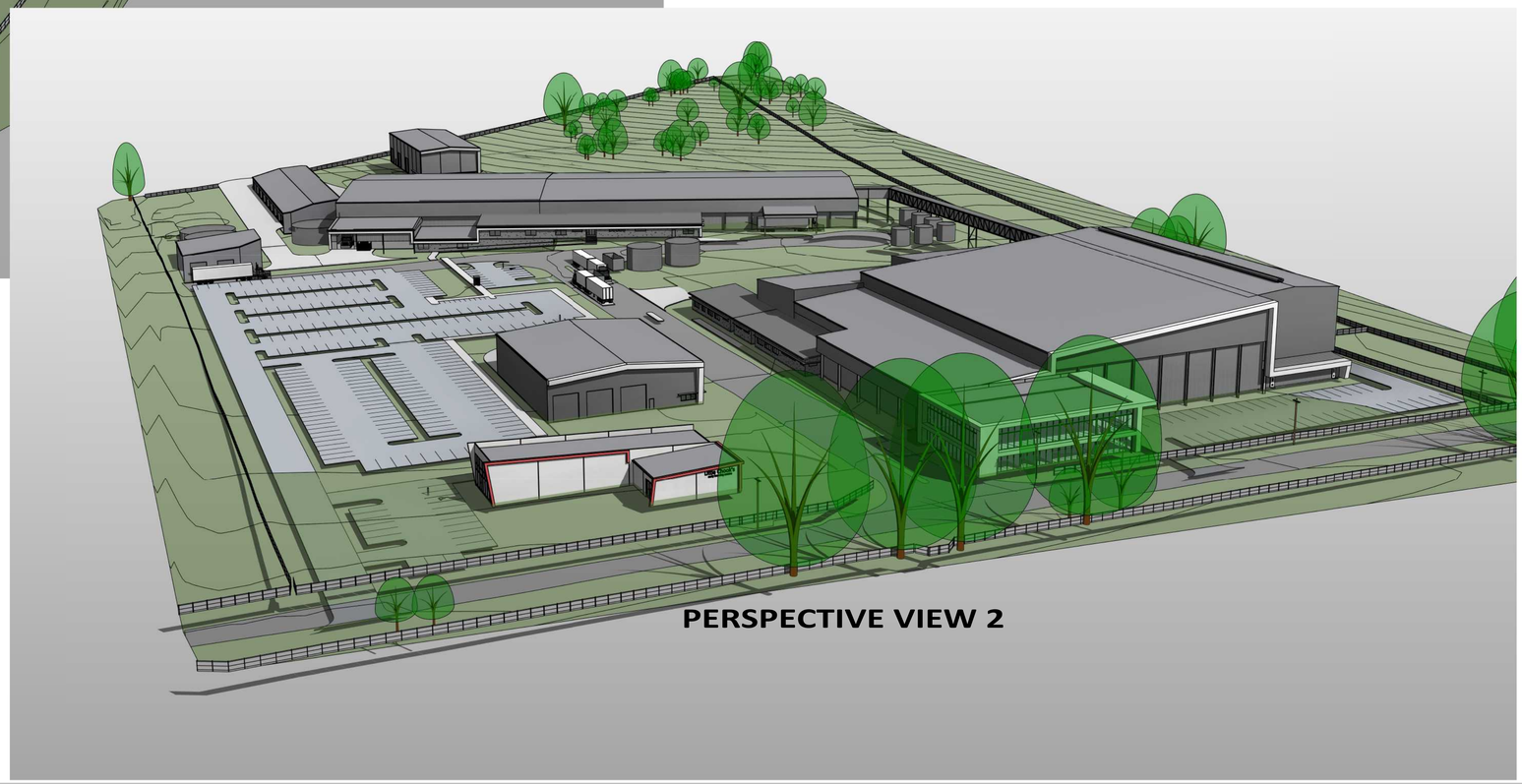
PROPOSED PROCESSING FACILITY COVER PAGE

Project No **- W21314**
Dwg No **- 00K000 - 3**
Date **- 01/04/19**

Plot Date 1/04/2019 2:08:42 PM **Cad File No** C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt



PERSPECTIVE VIEW 1



PERSPECTIVE VIEW 2

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WOODLANDS RIDGE POULTRY PTY LTD

PROPOSED PROCESSING FACILITY SITE PERSPECTIVE VIEWS

Project No - **W21314**
Dwg No - **00K004 - 3**
Date - **06/02/19**

Plot Date 6/02/2019 1:25:09 PM Cad File No C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt

LPG gas storage

chlorine tank (5,000L)

ammonia tank (10,000L)

90.6 m

74.1 m

101° 09'

383.159

13.2 m setback

7.0m WIDE ROAD

ELEVATED CARTON TUNNEL

SECURITY FENCE

13.0 m setback

6m WIDE FIRE ACCESS RING ROAD

104.0 m

existing trees to be demolished shown in red

CONDENSER PLATFORM

FFL 657.500

RAINWATER TANKS

28.0 m setback

CAR PARKING 47 SPACES

BUILDING 02 PROCESS FACILITY

FFL 659.000

5288 m²

PACKAGING UNLOADING

BUILDING 01 COLD STORE

FFL 658.000

5988 m²

19.0 m

191°03'49"

216.455

96.5 m

LOADOUT

10.0m WIDE ROAD

VEGETATED AREA

SPRINKLER TANKS

SECURITY FENCE

PALLET YARD

RAMP

6.1 m setback

BUILDING 03 CORPORATE OFFICES

FFL 659.000

556 m²

29.5 m

BERENMARK SSK126167 K.L. 65804

GUTHRIE ROAD (existing)

existing trees to be demolished shown in red

existing fence to be demolished shown in red

FIRE ACCESS ROAD

FFL 657.300

801 m²

WEIGH BRIDGE

WEIGH BRIDGE

KELLY STREET (existing)

COMMON ROAD

VISITORS CAR PARKING 14 SPACES

SECURITY FENCE

FOOTPATH

SET DOWN AREA

FOOTPATH

TURNSTILE

SECURITY FENCE

FOOTPATH

SET DOWN AREA

MOTORBIKE PARKING

LANDSCAPING

FOOTPATH

FACTORY STAFF CAR PARKING 156 SPACES

LANDSCAPING

LANDSCAPING

LANDSCAPING

SECURITY FENCE

SLUDGE LOAD OUT

PROPOSED STROMWATER DETENTION BASIN - REFER CIVIL WORKS DRAWINGS

FUTURE MBBR 1ML

MBBR 1ML

BALANCE TANK 1ML

20.0m

BUILDING 08 DAF

FFL 654.800

382 m²

6.5m WIDE ROAD

383.813

281° 06' 40"

20.0 m

4.0 m setback

STAGING COLOUR LEGEND

STAGE 1

STAGE 1 AREA SCHEDULE

STAGING	BUILDING AREA
STAGE 1	13228 m²

EXTERNAL PAVEMENT LEGEND

EXISTING PAVEMENT

NEW HEAVY DUTY PAVEMENT

NEW LIGHT DUTY PAVEMENT

PROPERTY DESCRIPTION

LOT: 22 AREA: 8.3Ha

DP: 750050

A1 = 1: 500 (A3 = 1: 1000) 0 5 10 m

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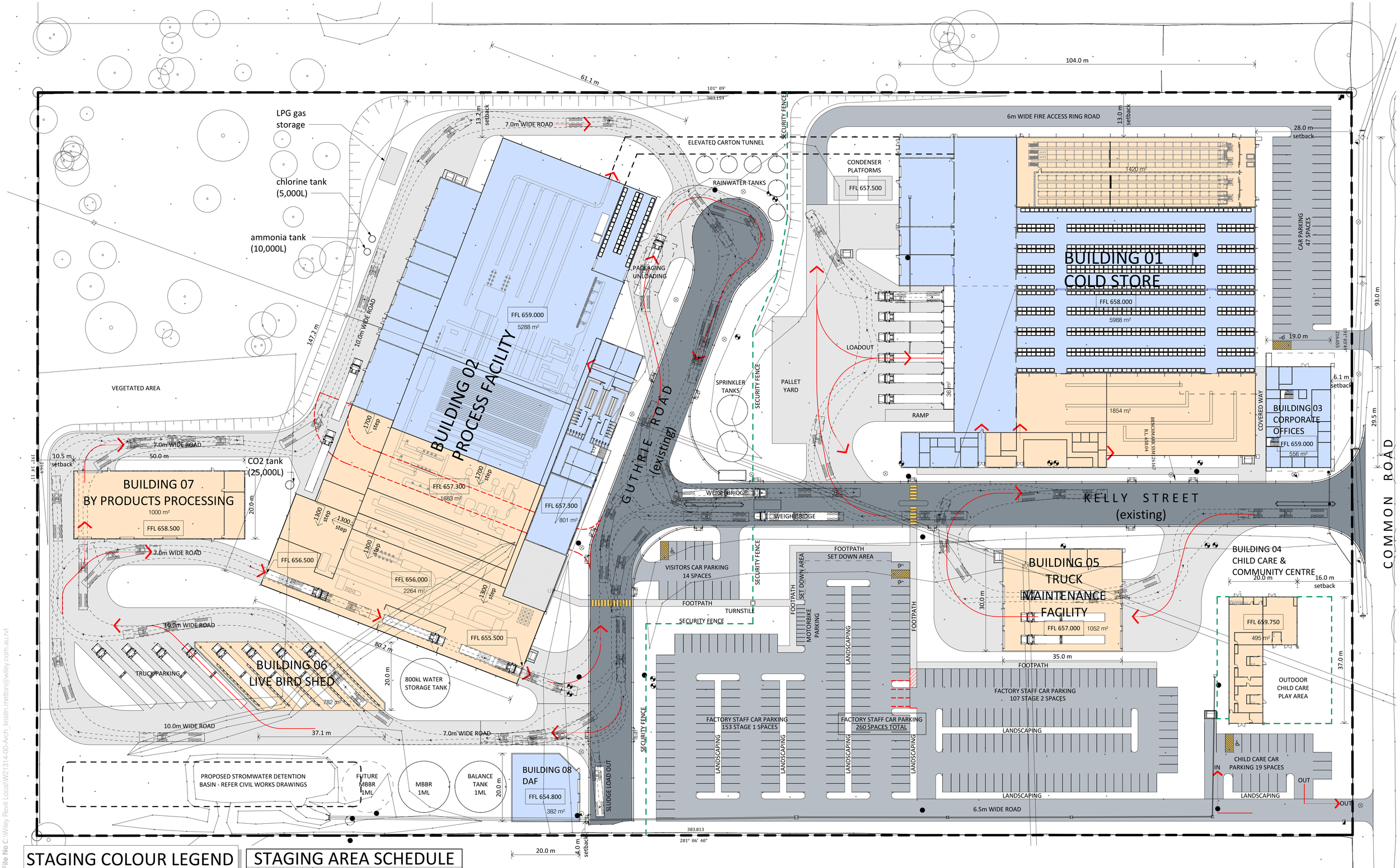
PROPOSED PROCESSING FACILITY
OVERALL SITE PLAN - STAGE 1 - NO CONTOURS

Project No - **W21314**

Dwg No - **00K007 - 1**

Date - **01/04/19**

Plot Date 1/04/2019 2:23:49 PM Cad File No C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt



STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE

STAGING	BUILDING AREA
	599 m²
STAGE 1	13228 m²
STAGE 2	10842 m²
	24669 m²

EXTERNAL PAVEMENT LEGEND

- EXISTING PAVEMENT
- NEW HEAVY DUTY PAVEMENT
- NEW LIGHT DUTY PAVEMENT

PROPERTY DESCRIPTION

LOT: 22 AREA: 8.3Ha
DP: 750050

A1 = 1: 500 (A3 = 1: 1000) 0 5 10 m

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PROPOSED PROCESSING FACILITY
OVERALL SITE PLAN - FINAL STAGE - NO CONTOURS

Project No - **W21314**
Dwg No - **00K008 - 1**
Date - **01/04/19**

Plot Date 1/04/2019 2:13:31 PM Cad File No C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt

KELLY STREET
(existing)

WEIGH BRIDGE

GATE HOUSE

WEIGH BRIDGE

FOOTPATH

SET DOWN AREA

2.4 m 2.4 m 2.6 m TYP

VISITORS CAR PARKING
14 STAGE 1 SPACES
5.4m LONG x 2.6m WIDE BAYS TYPICAL
6.2m WIDE AISLES

SECURITY FENCE

FOOTPATH

TURNSTILE

SECURITY FENCE

SET DOWN AREA

2.5 m 2.4 m 2.4 m TYP

FOOTPATH

MOTORCYCLE PARKING
10 BAYS
2.5m LONG x 1.2m WIDE

LANDSCAPING

FOOTPATH

BUILDING 05
TRUCK MAINTENANCE FACILITY

1052 m²

30.0 m

35.0 m

FOOTPATH

FACTORY STAFF CAR PARKING
107 STAGE 2 SPACES
5.4m LONG x 2.5m WIDE
BAYS TYPICAL
6.2m WIDE AISLES

FACTORY STAFF CAR PARKING
153 STAGE 1 SPACES
5.4m LONG x 2.5m WIDE
BAYS TYPICAL
6.2m WIDE AISLES

LANDSCAPING

LANDSCAPING

LANDSCAPING

FACTORY STAFF CAR PARKING
260 SPACES TOTAL

LANDSCAPING

LANDSCAPING

LANDSCAPING

6.5m WIDE ROAD

20.0 m

BUILDING 04
CHILD CARE &
COMMUNITY CENTRE

495 m²

37.0 m

OUTDOOR
CHILD CARE
PLAY AREA

2.4 m 2.4 m 2.6 m TYP

CHILD CARE CAR PARKING
20 STAGE 2 SPACES
5.4m LONG x 2.6m WIDE
BAYS TYPICAL
6.2m WIDE AISLES

IN

OUT

LANDSCAPING

655.17 383.813 655.61 656.09 656.33 656.60 656.90 657.09 657.53 658.06 658.65 659.51

281° 06' 40"

PARKING SUMMARY

DESCRIPTION	
Factory Staff Car Parking	260
Factory Visitor Car Parking	14
Child Care Car Parking	20
Corporate Offices Car Parking (refer dwg 00K011)	47
TOTAL	341
Factory Staff Motorcycle Parking	10

CHILD CARE OUTDOOR SPACE REQUIREMENTS

DESCRIPTION	
Estimated No. of Children	68
Area per Child	7.0m²
Play Area minimum	476m²
Play Area provided	599m²

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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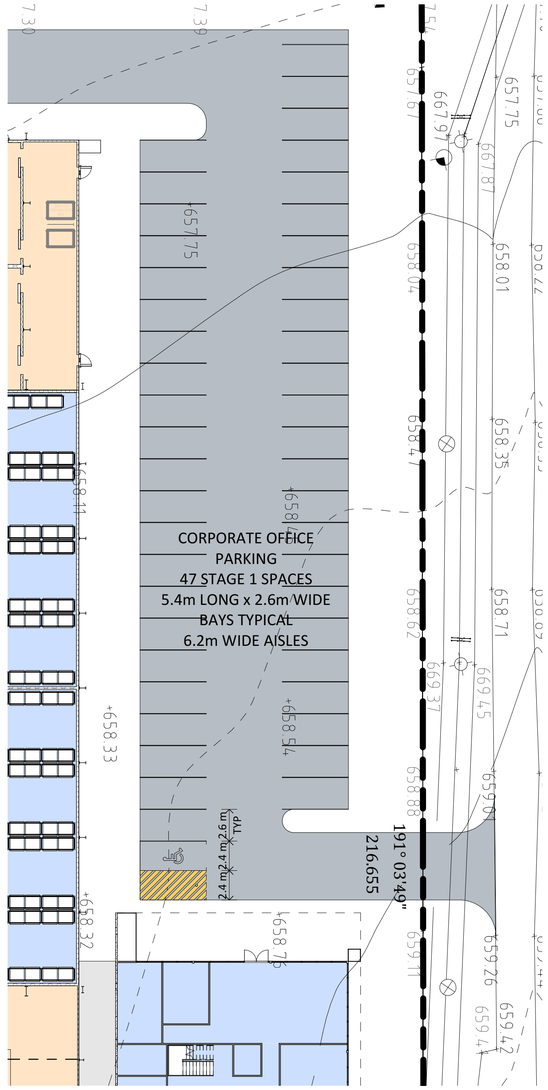
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WOODLANDS RIDGE POULTRY PTY LTD

PROPOSED PROCESSING FACILITY
FACTORY & CHILD CARE CAR PARK PLAN

Project No - W21314
Dwg No - 00K010 - 4
Date - 11/03/19

Plot Date 13/03/2019 9:22:48 AM Cad File No C:\Wiley Projects\Local\W21314-00-Arch_kristin.melton@wiley.com.au.dwg



A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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PROPOSED PROCESSING FACILITY
CORPORATE OFFICE CAR PARK PLAN

Project No - **W21314**
Dwg No - **00K011 - 2**
Date - **06/02/19**

Plot Date 6/02/2019 1:26:24 PM **Cad File No** C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt

GENERAL WASTE & PACKAGING IBE

COMPACTOR FOR PACKAGING WASTE

BUILDING 02 PROCESS FACILITY

REFRIGERATED, BY PRODUCTS, BLOOD, OFFAL, PET FOOD

GUT WASTE, FEATHERS, BONE, INEDIBLE PRODUCT

BUILDING 07 BY PRODUCTS PROCESSING

BUILDING 06 LIVE BIRD SHED

IBE GENERAL WASTE

EFFLUENT

EFFLUENT

BUILDING 08 DAF

SLUDGE COLLECTION

GUTHRIE ROAD (existing)

GENERAL WASTE IBE

BUILDING 01 COLD STORE

BUILDING 03 CORPORATE OFFICES

IBE

KELLY STREET (existing)

IBE GENERAL WASTE

OIL TRAP

BUILDING 05 TRUCK MAINTENANCE FACILITY

BUILDING 04 CHILD CARE & COMMUNITY CENTRE

GENERAL WASTE IBE

COMMON ROAD

WASTE TRANSPORTATION LEGEND

FORKLIFT PIPED CONVEYED

IBE INDUSTRIAL BIN ENCLOSURE

A1 = 1: 500 (A3 = 1: 1000) 0 5 10 m

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WOODLANDS RIDGE POULTRY PTY LTD

PROPOSED PROCESSING FACILITY WASTE MANAGEMENT PLAN

Project No - W21314
Dwg No - 00K012 - 3
Date - 01/04/19

Plot Date 1/04/2019 2:19:25 PM Cad File No C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt



PROPERTY DESCRIPTION

LOT: 22 AREA: 8.3Ha

DP: 750050

A1 = 1: 500 (A3 = 1: 1000) 0 5 10 m

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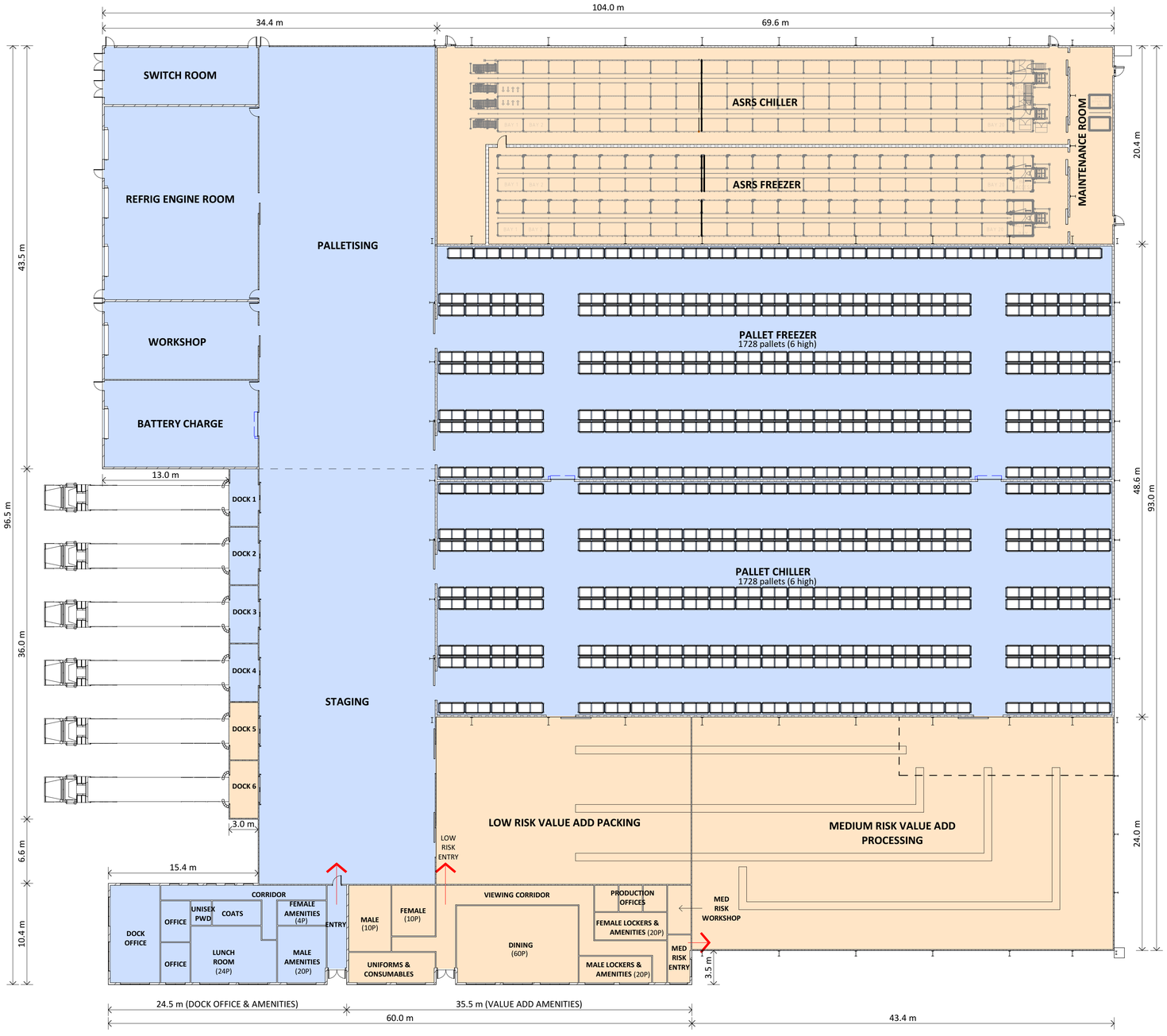
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PROPOSED PROCESSING FACILITY
EXISTING SITE PLAN

Project No - **W21314**
Dwg No - **00X001 - 2**
Date - **06/02/19**

Plot Date 6/02/2019 1:29:55 PM Cad File No C:\Wiley Revit Local\W21314-00-Arch_kristin.melton@wiley.com.au.rvt



COLD STORE FLOOR PLAN

STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE

STAGING	BUILDING AREA
STAGE 1	5864 m²
STAGE 2	3236 m²
	9101 m²

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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WOODLANDS RIDGE POULTRY PTY LTD

PROPOSED COLD STORE FLOOR PLAN

Project No - **W21314**
Dwg No - **01K101 - 3**
Date - **11/03/19**

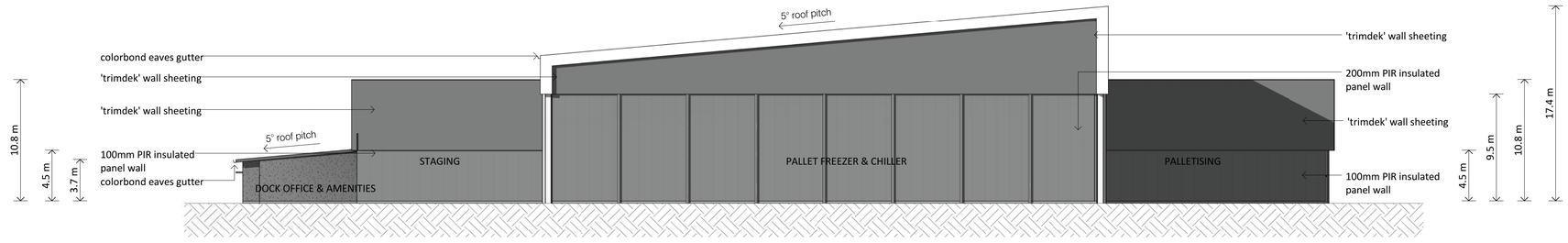
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NORTH ELEVATION - STAGE 1



SOUTH ELEVATION - STAGE 1



EAST ELEVATION - STAGE 1



WEST ELEVATION - STAGE 1

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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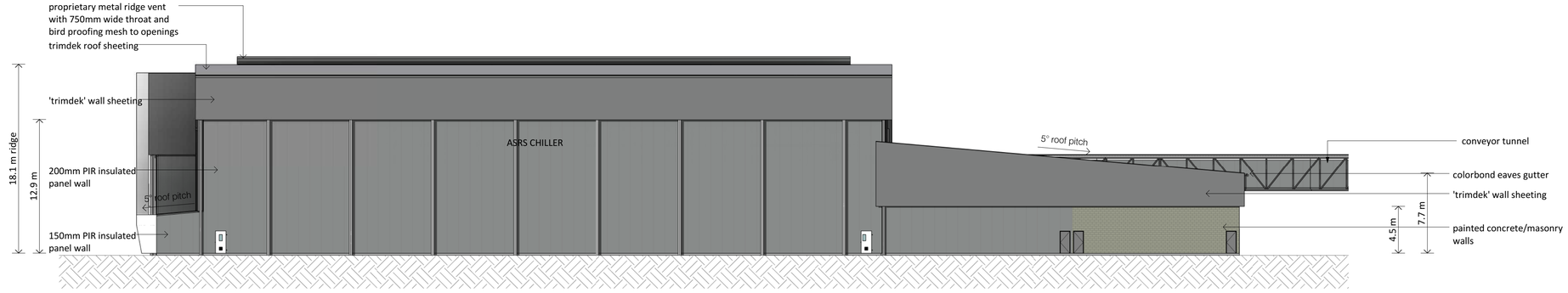
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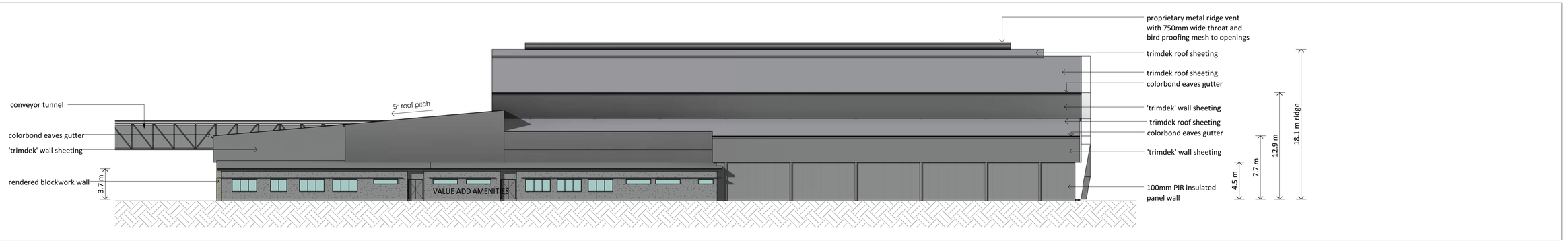
PROPOSED COLD STORE ELEVATIONS - STAGE 1

Project No - W21314
Dwg No - 01K201 - 3
Date - 06/02/19

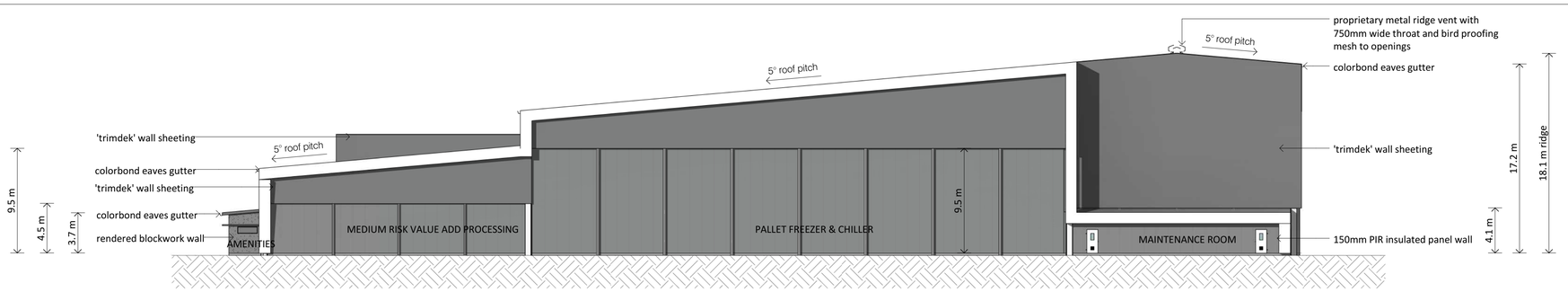
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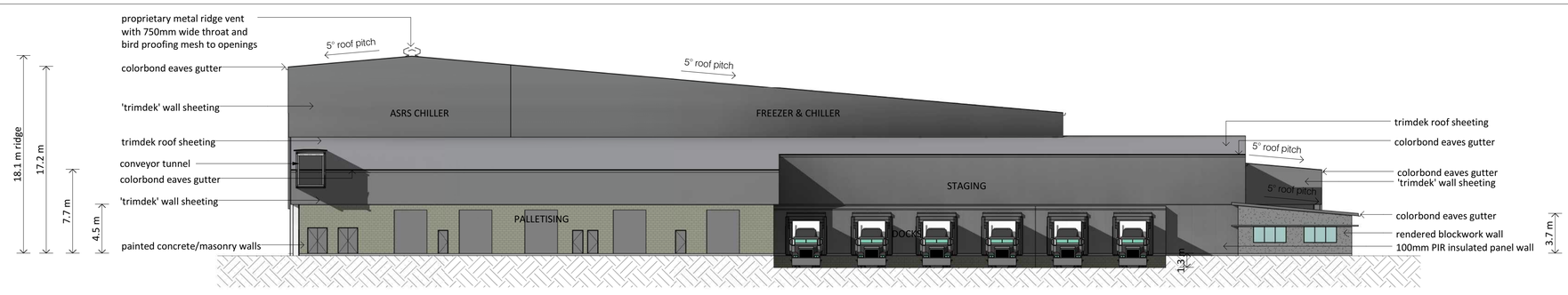
NORTH ELEVATION - FINAL STAGE



SOUTH ELEVATION - FINAL STAGE



EAST ELEVATION - FINAL STAGE



WEST ELEVATION - FINAL STAGE

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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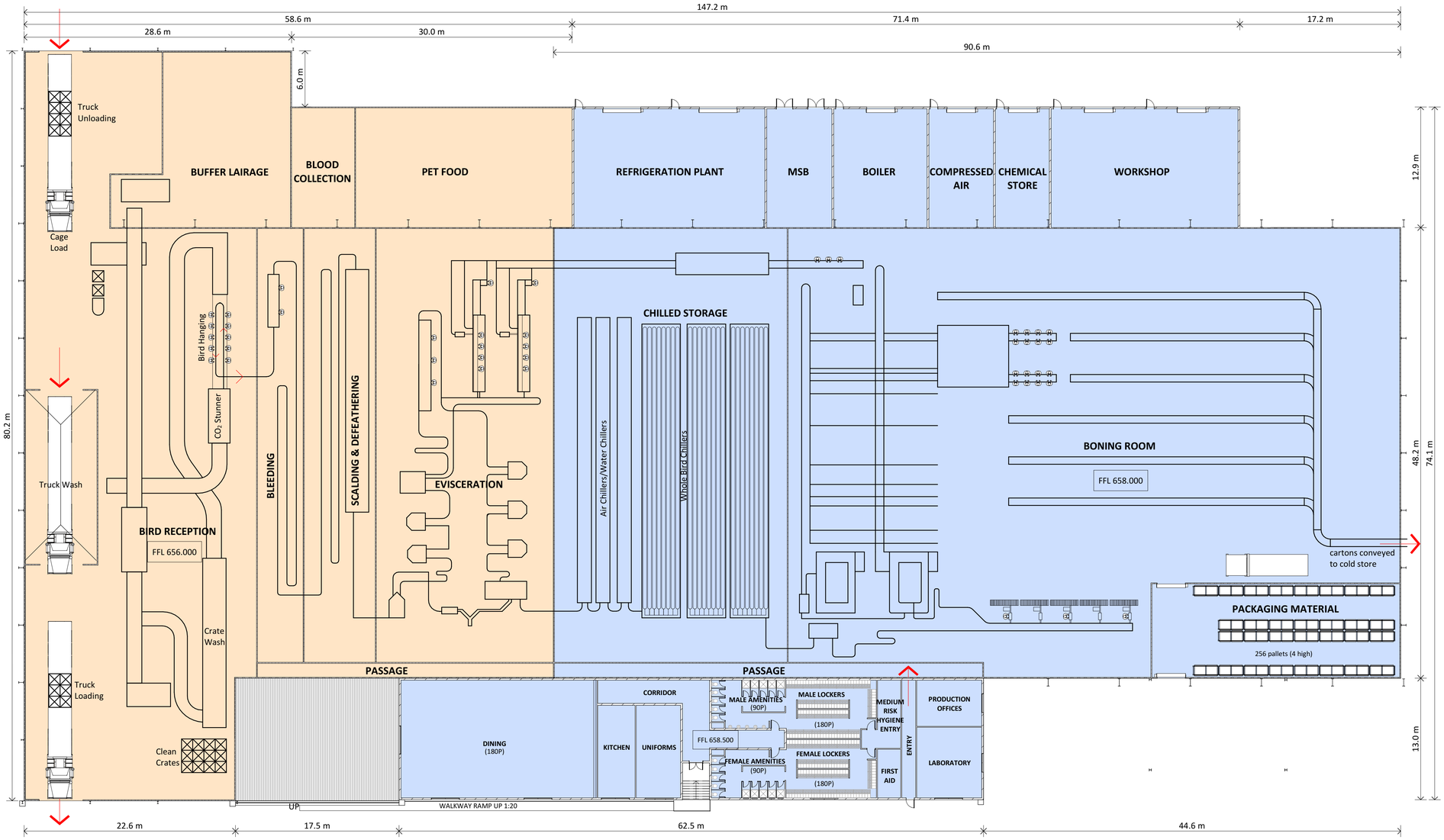
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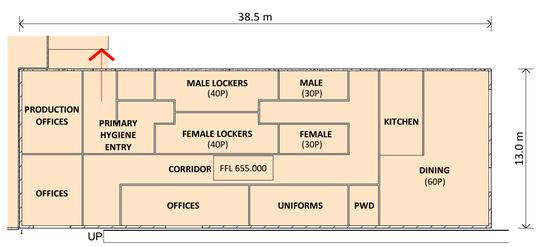
PROPOSED COLD STORE ELEVATIONS - FINAL STAGE

Project No - **W21314**
Dwg No - **01K202 - 3**
Date - **06/02/19**

Plot Date 6/02/2019 1:34:39 PM Cad File No C:\Wiley Revit Local\W21314-01-Arch_kristin.melton@wiley.com.au.rvt



PROCESSING AND SECONDARY (CLEAN) AMENITIES FLOOR PLAN



LOWER (DIRTY) AMENITIES FLOOR PLAN RL 655.000

STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE	
STAGING	BUILDING AREA
STAGE 1	5966 m²
STAGE 2	4372 m²
	10338 m²

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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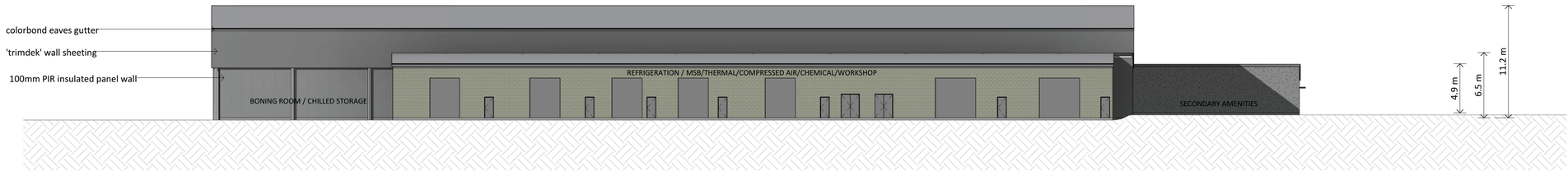
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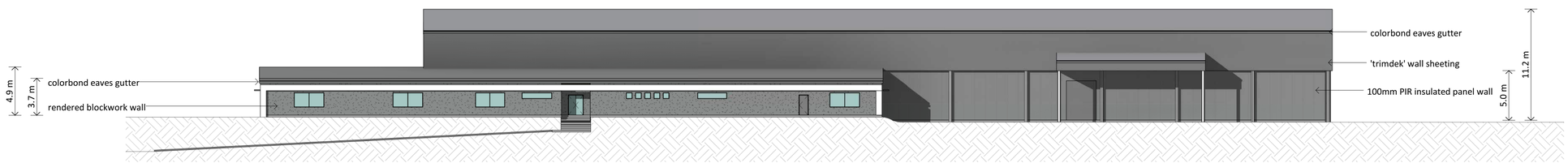
PROPOSED PROCESSING FACILITY FLOOR PLAN

Project No - W21314
Dwg No - 02K101 - 3
Date - 11/03/19

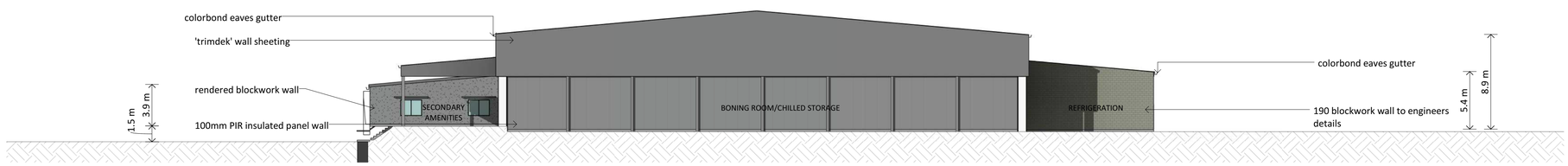
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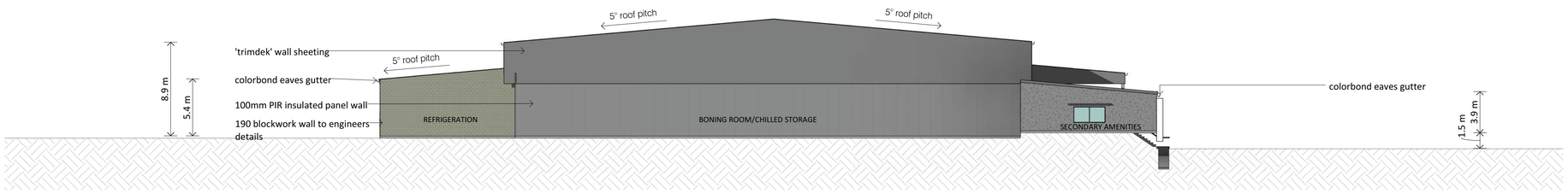
NORTH ELEVATION - STAGE 1



SOUTH ELEVATION - STAGE 1



EAST ELEVATION - STAGE 1



WEST ELEVATION - STAGE 1

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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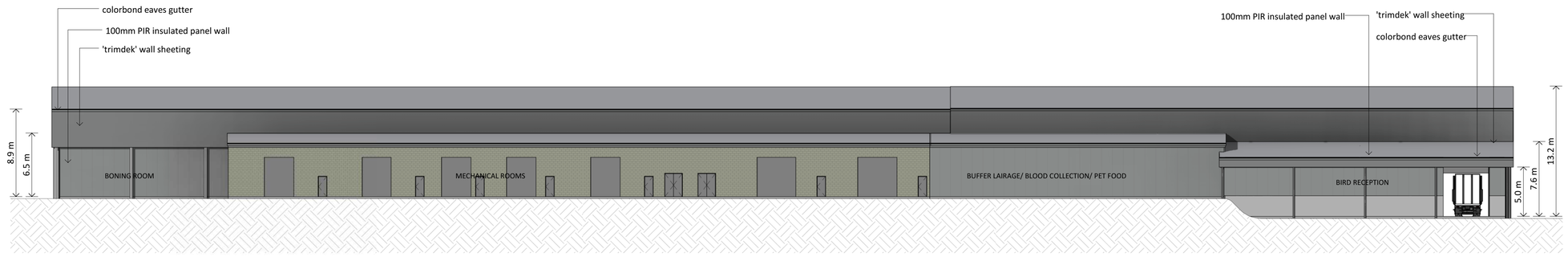
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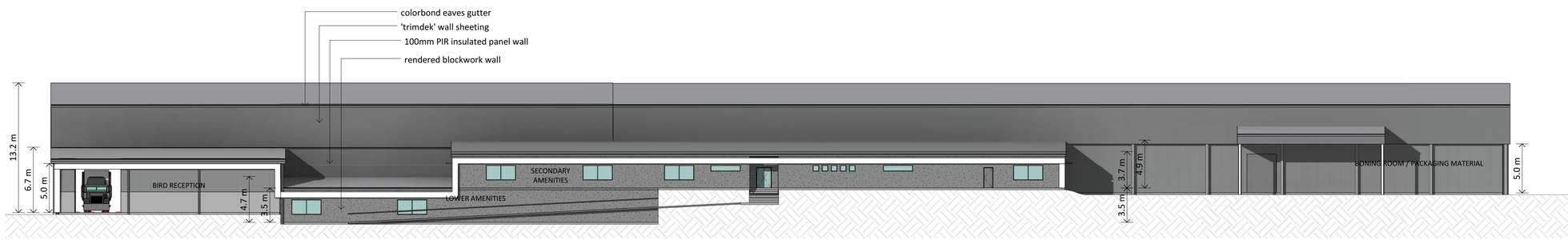
PROPOSED PROCESSING FACILITY ELEVATIONS - STAGE 1

Project No - **W21314**
Dwg No - **02K201 - 3**
Date - **06/02/19**

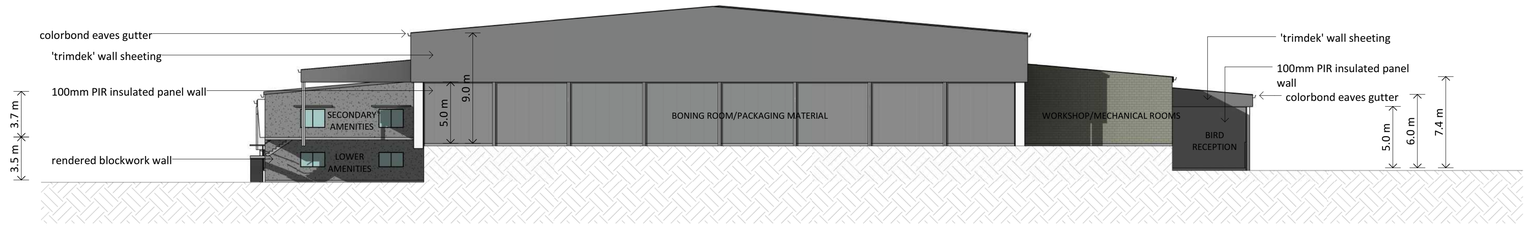
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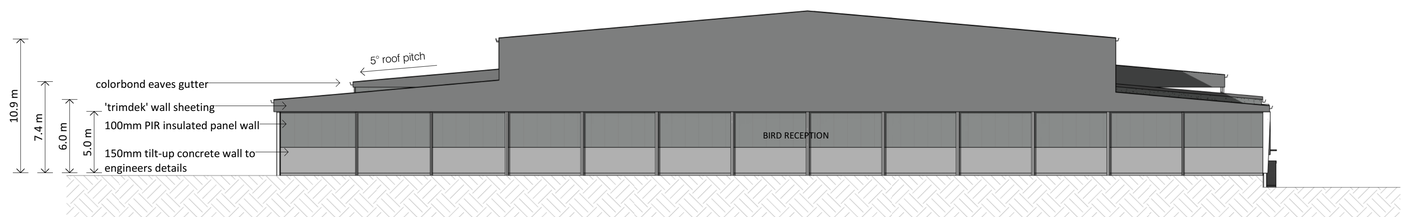
NORTH ELEVATION - FINAL STAGE



SOUTH ELEVATION - FINAL STAGE



EAST ELEVATION - FINAL STAGE



WEST ELEVATION - FINAL STAGE

A1 = 1: 250 (A3 = 1: 500) 0 2500 5000 mm

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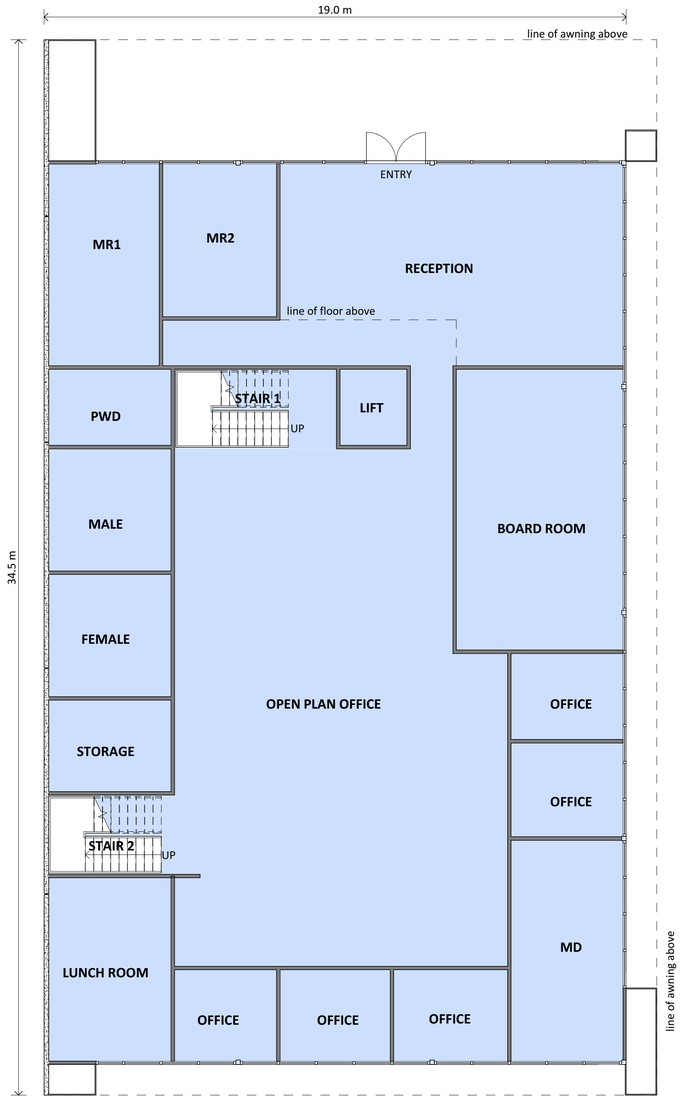
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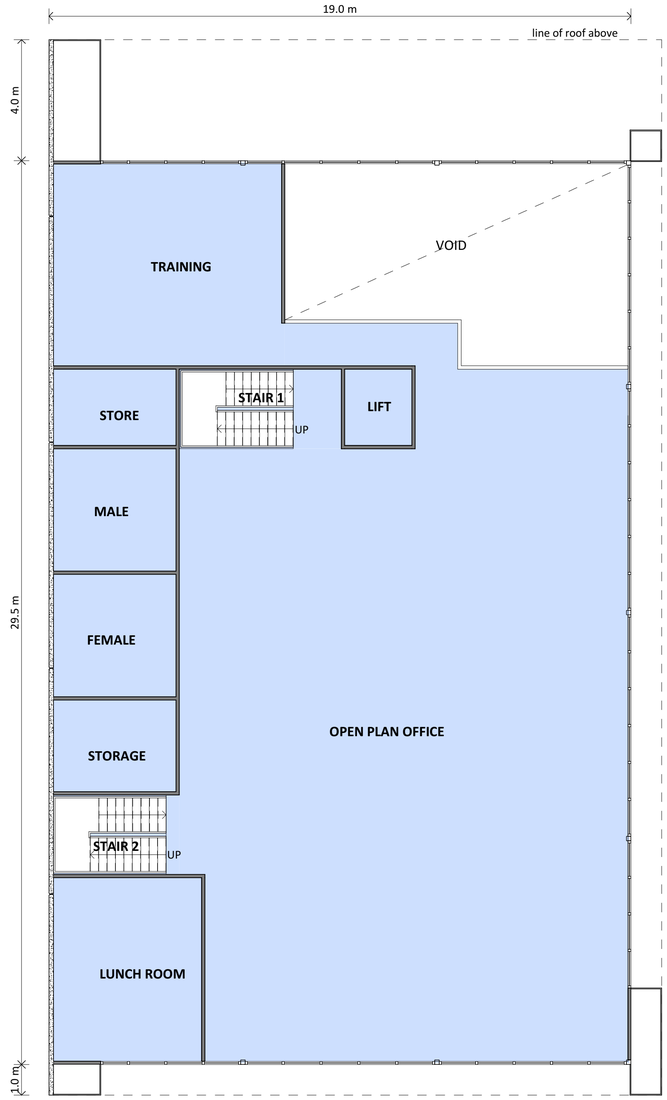
PROPOSED PROCESSING FACILITY ELEVATIONS - FINAL STAGE

Project No - W21314
Dwg No - 02K202 - 3
Date - 06/02/19

Plot Date 6/02/2019 1:38:36 PM Cad File No C:\Wiley Revit Local\W21314-02-Arch_kristin.melton@wiley.com.au.rvt



GROUND FLOOR PLAN



FIRST FLOOR PLAN

STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE	
STAGING	BUILDING AREA
STAGE 1	989 m²
	989 m²

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

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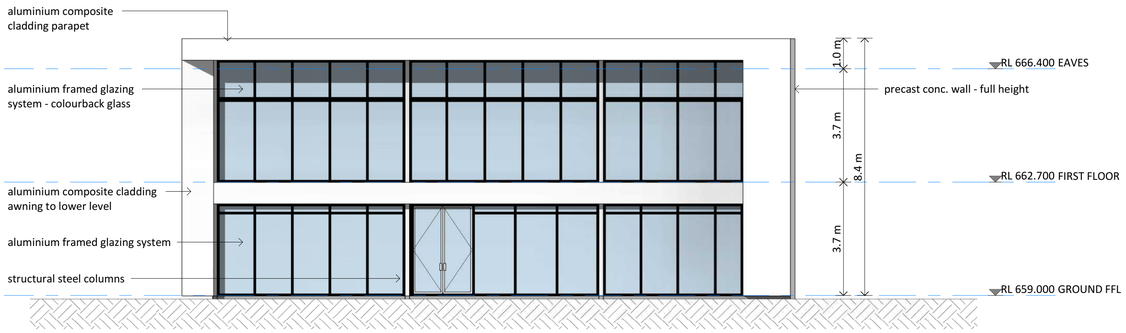
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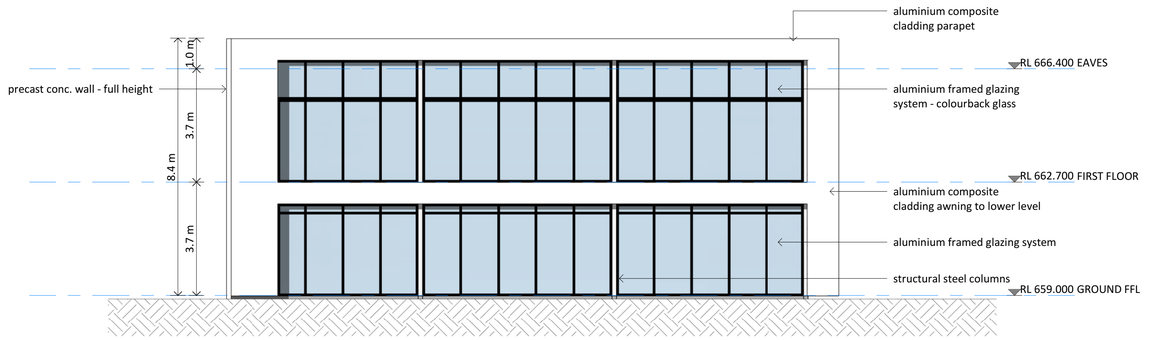
PROPOSED CORPORATE OFFICE FLOOR PLAN

Project No - W21314
Dwg No - 03K101 - 3
Date - 06/02/19

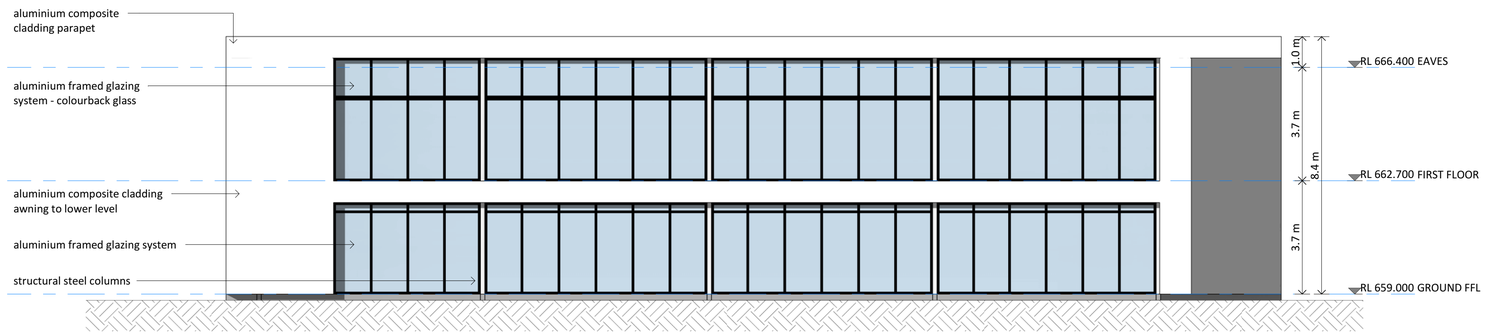
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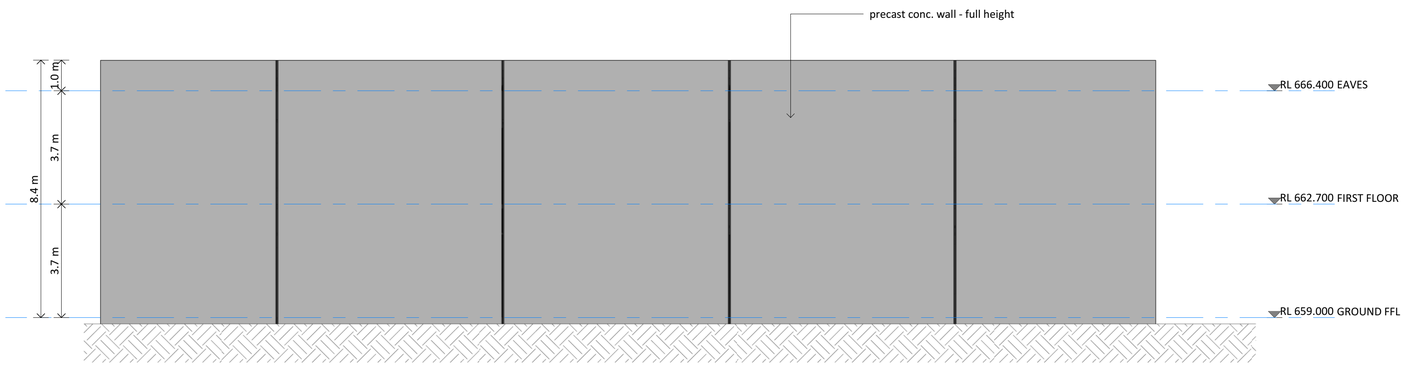
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

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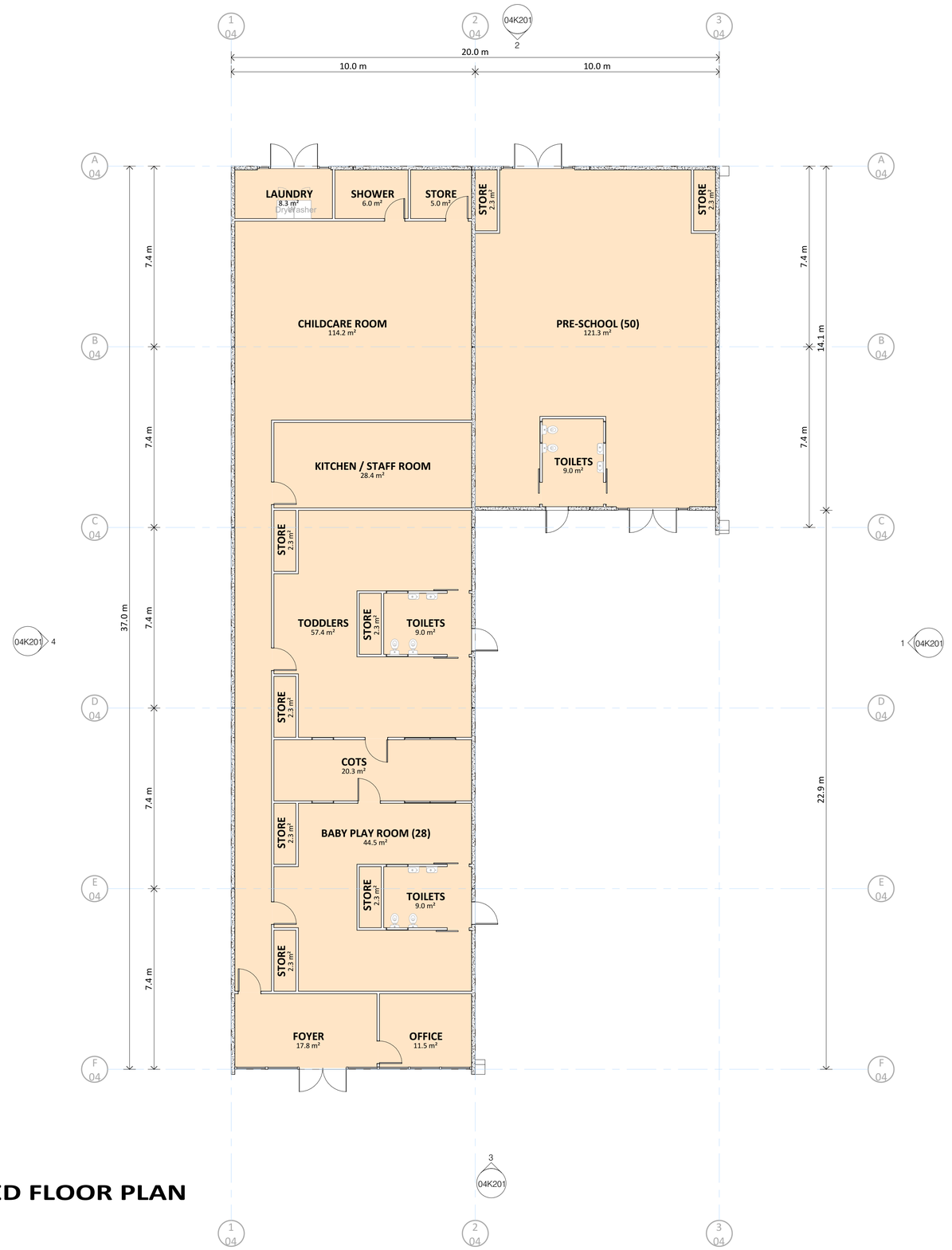
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WOODLANDS RIDGE POULTRY PTY LTD

PROPOSED CORPORATE OFFICE ELEVATIONS

Project No - **W21314**
Dwg No - **03K201 - 3**
Date - **06/02/19**

Plot Date 6/02/2019 1:41:21 PM **Cad File No** C:\Wiley Revit Local\W21314-03-Arch_kristin.melton@wiley.com.au.rvt



PROPOSED FLOOR PLAN

INDOOR SPACE REQUIREMENTS

Storage - 3.25m² total consisting of 0.2m³ min. per child internal storage space & 0.3m³ min. per child external storage space

STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE

STAGING	AREA
STAGE 2	479.6 m²
	479.6 m²

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

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CHILDCARE AND COMMUNITY CENTRE FLOOR PLAN

Project No - W21314
Dwg No - 04K101 - 1
Date - 14/02/19

Plot Date 14/02/2019 1:14:14 PM Cad File No C:\Wiley Revit Local\W21314-04-Arch_kristin.melton@wiley.com.au.rvt



PROPOSED FLOOR PLAN

SPACE REQUIREMENTS

- 3.25m² min. per child indoor play area
  68 kids x 3.25m² = 221m² required
  223.2m² provided
- 0.2m³ min. per child internal storage space
- 7.0m² min per child outdoor play area
  68 kids x 7.0m² = 476m² required
  599m² provided
- 0.3m³ min. per child external storage space

STAGING COLOUR LEGEND

- STAGE 1
- STAGE 2

STAGING AREA SCHEDULE

STAGING	AREA
STAGE 2	479.6 m²
	479.6 m²

A1 = 1:100 (A3 = 1: 200) 0 1000 2000 mm

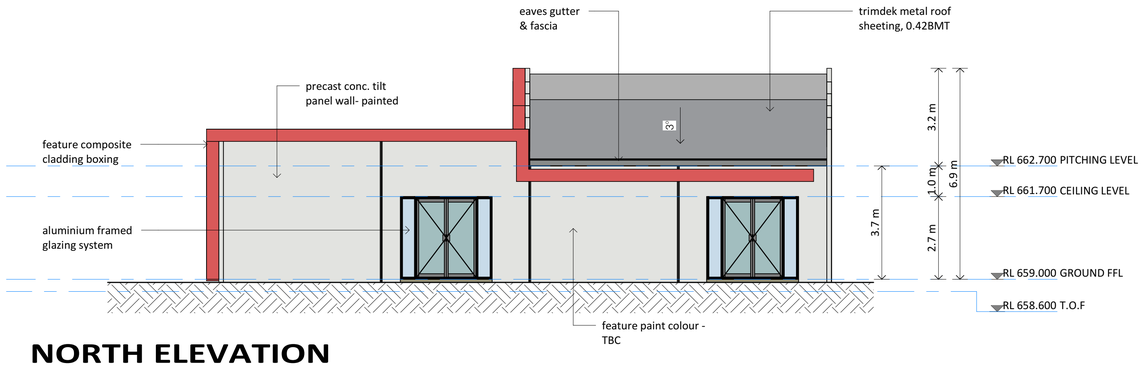
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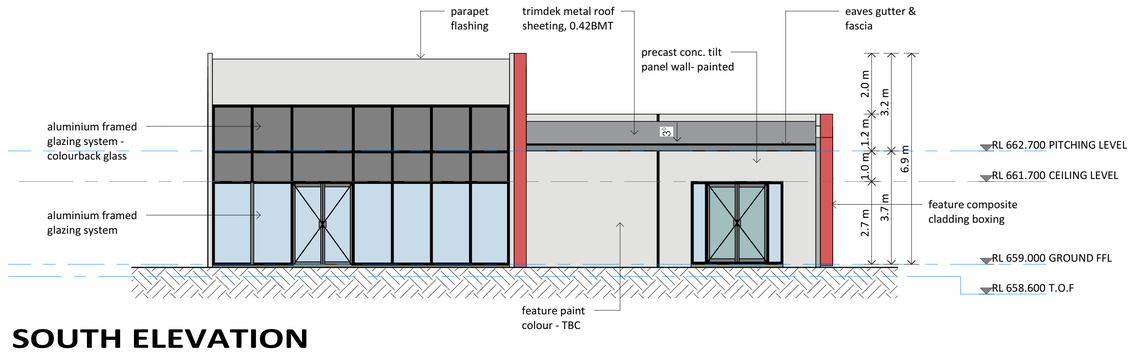
CHILDCARE AND COMMUNITY CENTRE FLOOR PLAN

Project No - W21314
Dwg No - 04K101 - 2
Date - 11/03/19

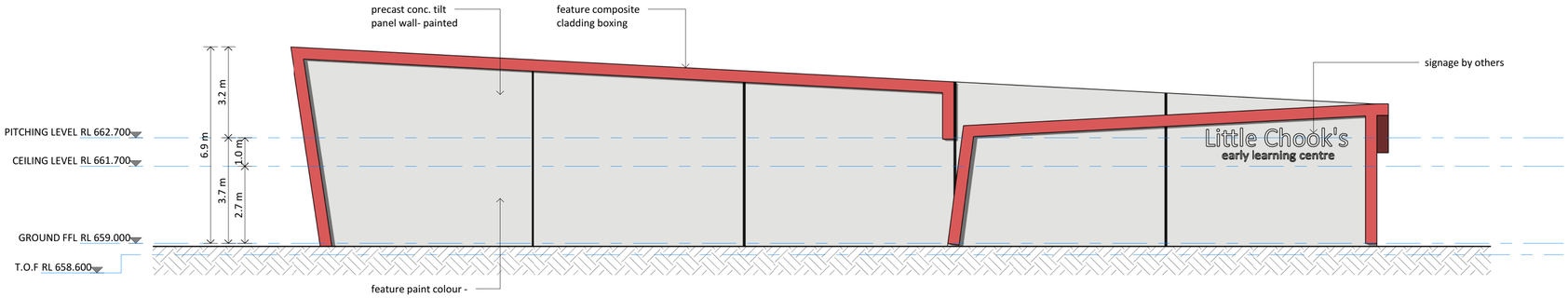
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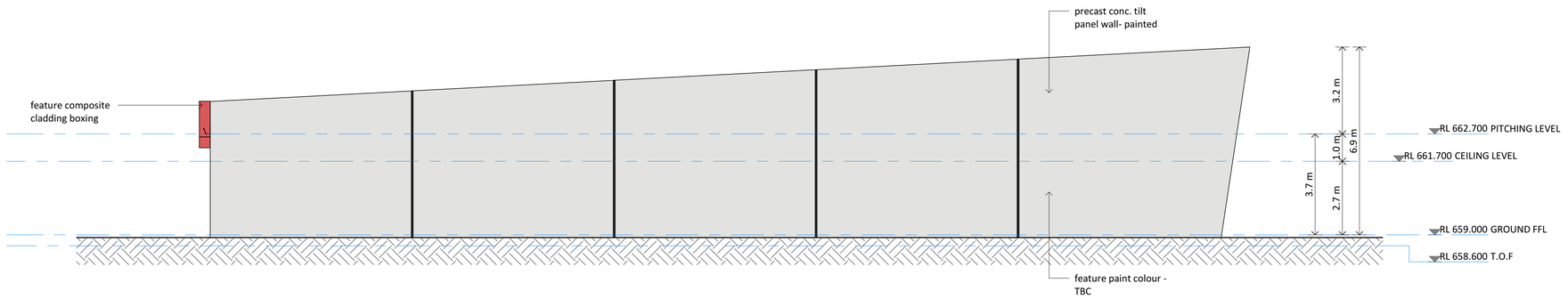
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

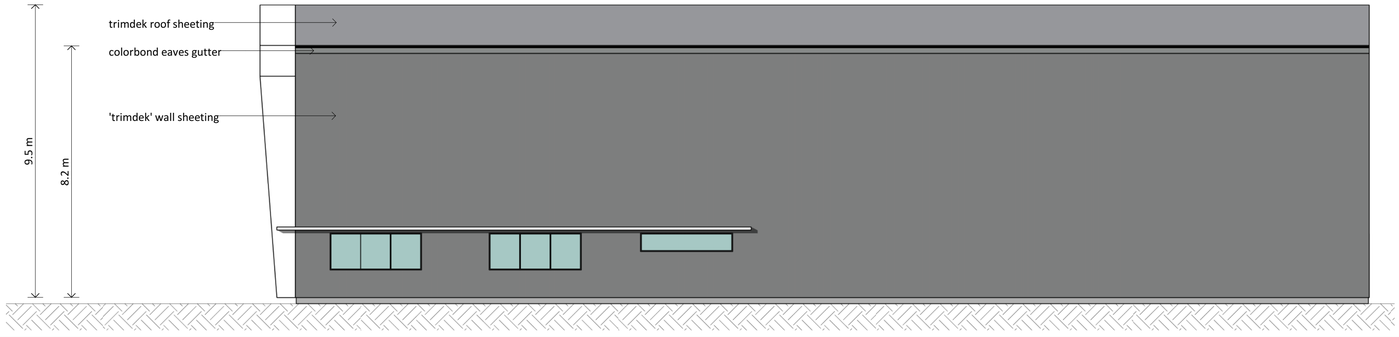
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CHILDCARE AND COMMUNITY CENTRE ELEVATIONS

Project No - W21314
Dwg No - 04K201 - 3
Date - 06/02/19

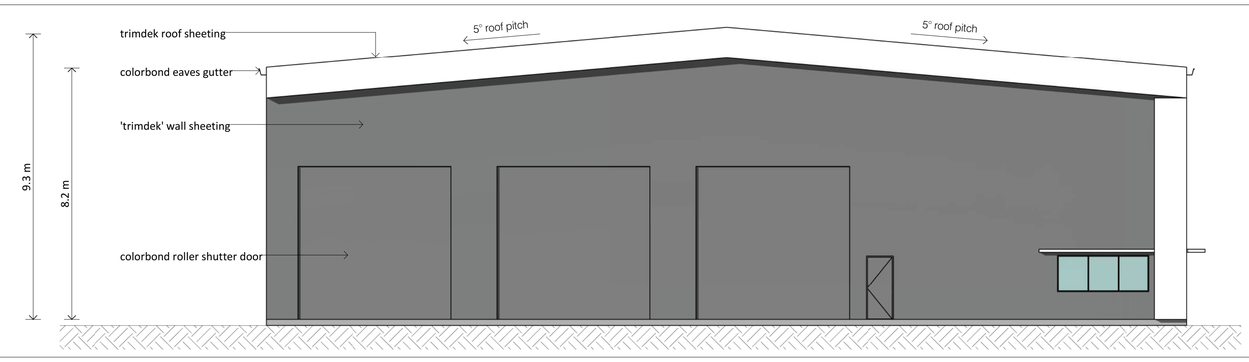
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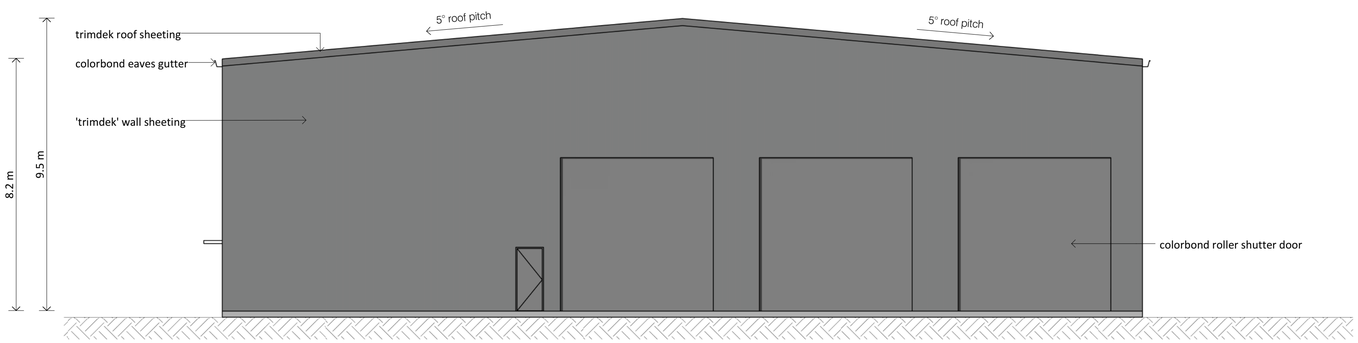
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

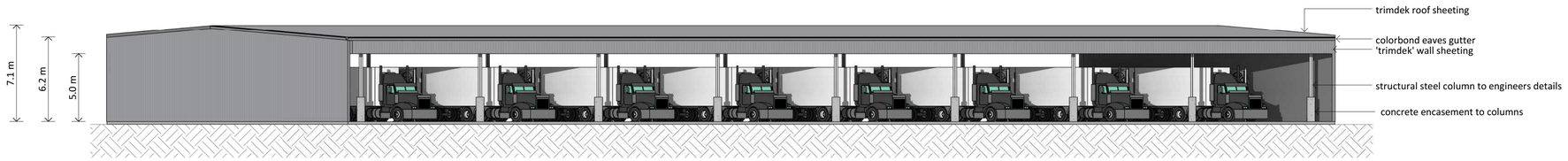
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WOODLANDS RIDGE POULTRY PTY LTD

TRUCK MAINTENANCE FACILITY ELEVATIONS

Project No - **W21314**
Dwg No - **05K201 - 3**
Date - **06/02/19**

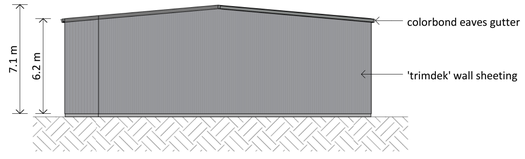
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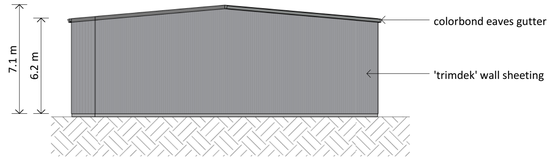
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 200 (A3 = 1: 400) 0 2000 4000 mm

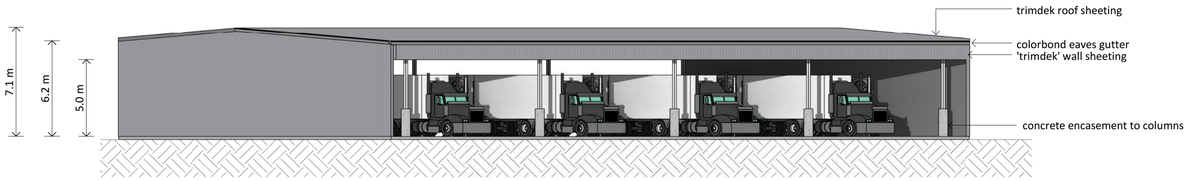
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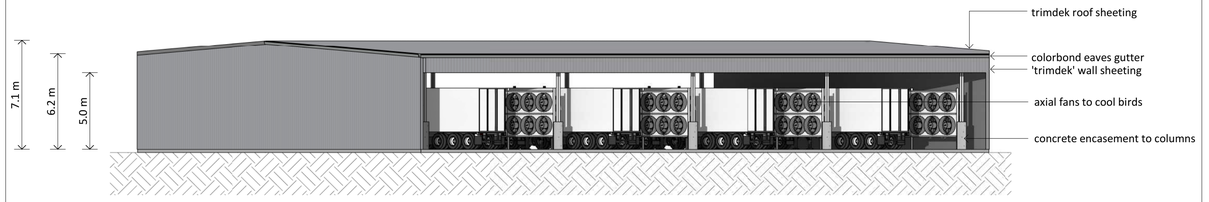
LIVE BIRD SHED ELEVATIONS

Project No - **W21314**
Dwg No - **06K201 - 3**
Date - **06/02/19**

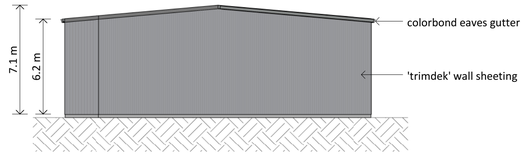
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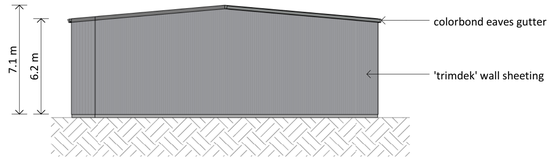
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 200 (A3 = 1: 400) 0 2000 4000 mm

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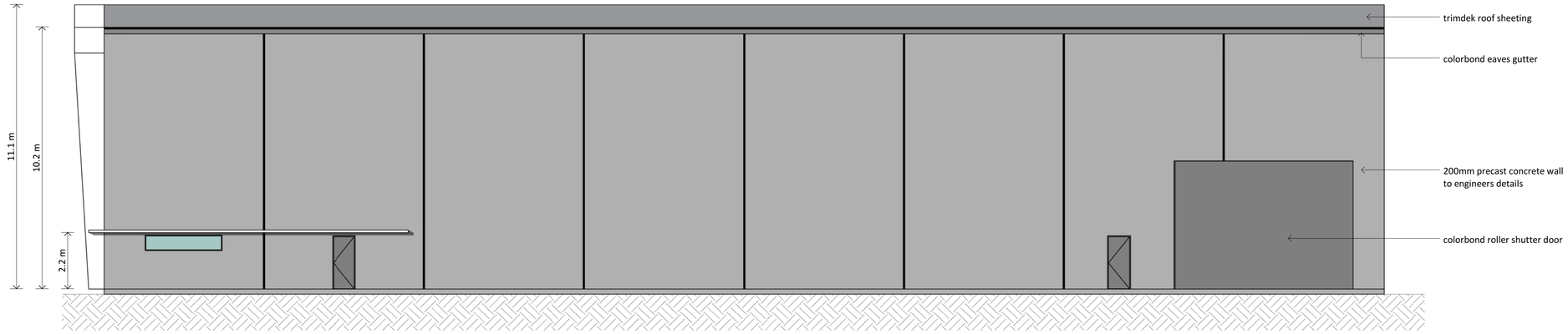
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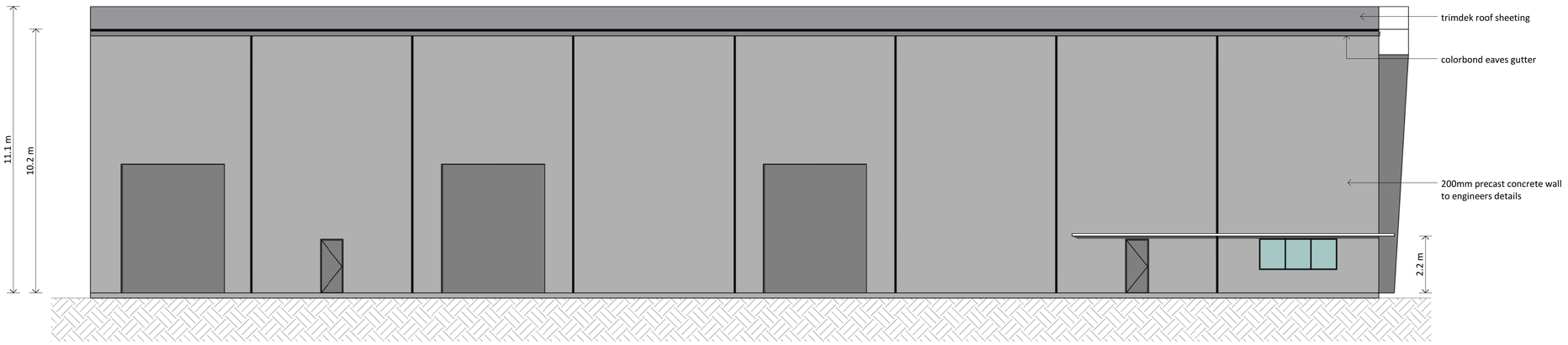
LIVE BIRD SHED ELEVATIONS

Project No **- W21314**
Dwg No **- 06K201 - 4**
Date **- 11/03/19**

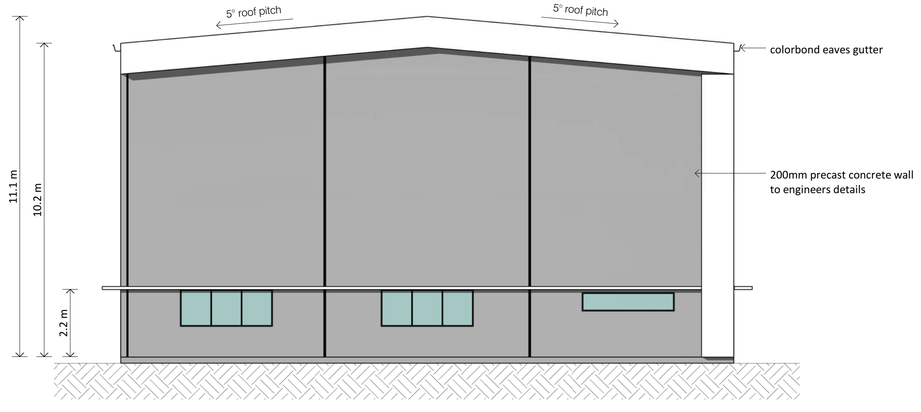
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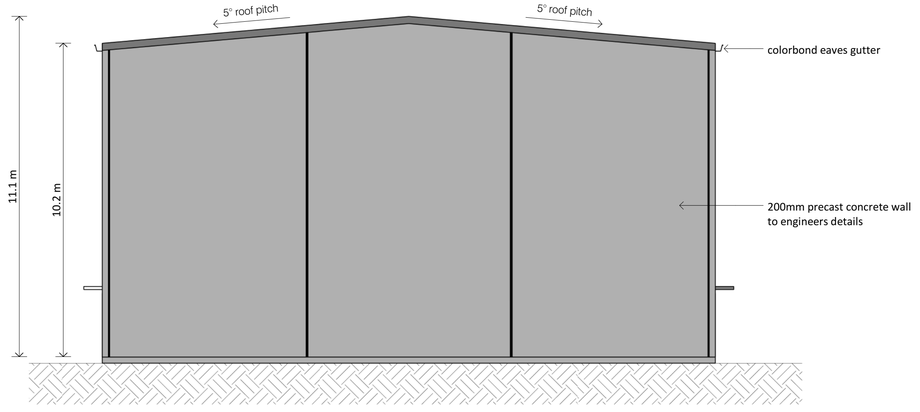
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

A1 = 1: 100 (A3 = 1: 200) 0 1000 2000 mm

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WOODLANDS RIDGE POULTRY PTY LTD

BY PRODUCTS PROCESSING ELEVATIONS

Project No - **W21314**
Dwg No - **07K201 - 3**
Date - **06/02/19**

Plot Date 6/02/2019 1:49:16 PM Cad File No C:\Wiley Revit Local\W21314-07-Arch_kristin.melton@wiley.com.au.rvt

Appendix D
HISTORICAL TITLES

ADVANCE LEGAL SEARCHERS PTY LTD

(ACN 147 943 842)
ABN 82 147 943 842

18/36 Osborne Road,
Manly NSW 2095

Telephone: +612 9977 6713
Mobile: 0412 169 809
Email: search@alsearchers.com.au

17th December 2018

LOTSEARCH PTY LTD
Level 3, 68 Alfred Street,
MILSONS POINT, NSW 2061

Attention: Rosemary Hulak,

RE: **52 Sinclair Street,**
Goulburn
Reference: LS004800_EP

Current Search

Folio Identifier 22/750050 (title attached)
Crown Plan 391-642 (plan attached)
Dated 14th December 2018
Registered Proprietor:
EDOUARD JOHN WEHBE
LAUREN MARDI WEHBE

Title Tree
Lot 22 DP 750050

Folio Identifier 22/750050

Certificate of Title Volume 13561 Folio 20

IVA 24762

Conveyance Book 2873 No. 11

Conveyance Book 1337 No. 657

****

Land Suburban Allotment 22 Parish Towrang
Granted to William Simonds on 23rd September 1839

****

Summary of proprietor(s)
Lot 22 DP 750050

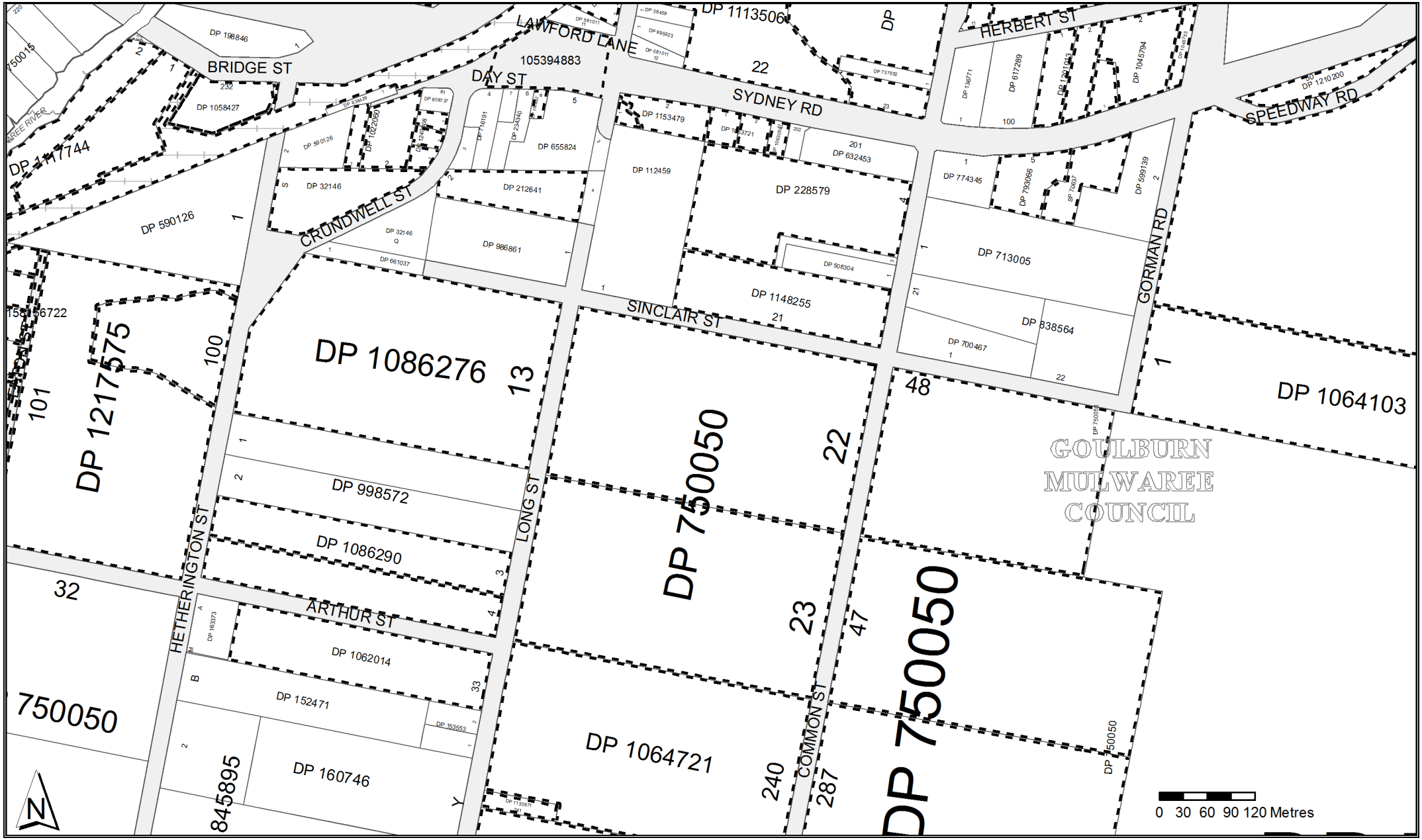
Year	Proprietor(s)
	(Lot 22 DP 750050)
2016 – todate	Edouard John Wehbe Lauren Mardi Wehbe
2013 – 2016	Ramz Group Pty Ltd
2007 – 2013	Hashkel Pty Limited
1989 – 2007	Ian Christopher Duck, labourer
	(Suburban Allotment 22 Town Goulburn – CTVol 13561 Fol 20)
1979 – 1989	Ian Christopher Duck, labourer
1978 – 1979	Melva Joyce Goodfellow, home duties
	(Suburban Allotment 22 Town Goulburn – Area 20 Acres – Conv Book 2873 No. 11)
1967 – 1978	George Hugh Goodfellow, milk vendor Melva Joyce Goodfellow, his wife
1964 – 1967	Hector de Garis Yabsley, retired dairyman / administrator Roy Arthur Sinclair Yabsley, estate
	(Suburban Allotment 22 Town Goulburn – Area 20 Acres – Conv Book 1337 No. 657)
1924 – 1964	Hector de Garis Yabsley, dairyman Roy Arthur Sinclair Yabsley, carter
1917 – 1924	Margaret Jane Harvey, married woman/ administrator Mary Innes Yabsley, wife of Edward Yabsley, retired carter/ administrator Mary Sinclair, widow / administrator John Munro Sinclair, farmer/ administrator Colin Alexander Sinclair, labourer/ administrator Neil Donald Sinclair, farmer/ administrator Margaret White, wife of William Henry White, farmer/ administrator Hugh Hector Sinclair, farmer/ administrator John Munro Sinclair, estate
1877 – 1917	Margaret Jane Harvey, married woman / administrator Flora Sinclair, widow / administrator Hector Sinclair / administrator Mary Innes Yabsley / administrator John Munro Sinclair, estate

****

Cadastral Records Enquiry Report : Lot 22 DP 750050

Ref : NOUSER

Locality : GOULBURN
Parish : TOWRANG
LGA : GOULBURN MULWAREE
County : ARGYLE



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	Status	Surv/Comp	Purpose
DP32146			
Lot(s): S			
CA88523 - LOT S DP32146			
DP158442			
Lot(s): B			
CA87932 - LOT B DP158442			
DP212641			
Lot(s): 2			
CA89503 - LOT 2 DP212641			
DP228579			
Lot(s): 4			
CA89191 - LOT 20 DP1063056 AND LOT 4 DP228579			
DP248024			
Lot(s): 1			
CA114183 - LOT 1 DP248024			
DP750050			
Lot(s): 22			
DP1129889	PRE-ALLOCATED	UNAVAILABLE	SUBDIVISION
Lot(s): 48			
CA88231 - LOT 48 DP750050			
Lot(s): 23			
CA89532 - LOT 23 DP750050 AND LOT 240 DP1064721			
Lot(s): 25, 47			
CA92717 - LOTS 25 AND 47 DP750050			
Lot(s): 287			
CA93193 - LOT 287 DP750050			
DP793066			
Lot(s): 5			
DP1172774	WITHDRAWN	UNAVAILABLE	SUBDIVISION
DP1005184			
Lot(s): 11, 12, 13			
DP626592	HISTORICAL	SURVEY	SUBDIVISION
DP1022060			
Lot(s): 1			
DP1007110	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
Lot(s): 2			
DP998237	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1045794			
Lot(s): 1, 2			
DP999234	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1048753			
Lot(s): 1			
CA87614 - LOT 1 DP1048753			
DP1053721			
Lot(s): 1, 2			
DP65541	HISTORICAL	SURVEY	UNRESEARCHED
DP1058427			
Lot(s): 232			
CA88641 - LOT 232 DP1058427			
DP1062014			
Lot(s): 33			
CA89122 - LOT 33 DP1062014			
DP1063056			
Lot(s): 20			
CA89191 - LOT 20 DP1063056 AND LOT 4 DP228579			
DP1064103			
Lot(s): 1			
NSW GAZ. 11-03-2005 Folio : 758 ACQUIRED FOR COUNCIL PURPOSES LOT 1 DP1064103			
PA81857 - LOT 1 DP1064103			

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	Status	Surv/Comp	Purpose
DP1064721			
Lot(s): 240			
CA89532 - LOT 23 DP750050 AND LOT 240 DP1064721			
DP1086276			
Lot(s): 13			
CA95260 - LOT 13 DP1086276			
DP1086290			
Lot(s): 3			
CA95265 - LOT 3 DP1086290			
Lot(s): 4			
CA95273 - LOT 4 DP1086290			
DP1113506			
Lot(s): 22, 23			
DP1092642	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
CA97669 - LOT 3 DP1092642			
Lot(s): 22			
DP1081409	HISTORICAL	SURVEY	SUBDIVISION
DP1113673			
Lot(s): 5, 6, 7, 8			
CA113306 - LOTS 5-12 DP1113673			
CA113804 - NPW			
DP1117744			
Lot(s): 1, 2			
DP797676	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1118342			
Lot(s): 3			
CA113187 - LOTS 1 AND 3 DP1118342			
Lot(s): 2			
CA114996 - NPW (SEE CA113187 - LOT 2 DP1118342)			
DP1133971			
Lot(s): 241			
CA110474 - LOT 241 DP1133971			
DP1148255			
Lot(s): 21			
CA150232 - LOT 21 DP1148255			
DP1153479			
Lot(s): 1, 2			
DP996791	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1199537			
Lot(s): 1, 2			
DP1067647	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
CA89768 - LOT 1011 DP1067647 AND LOT 3 DP249129			
DP1201013			
Lot(s): 1, 2			
DP779301	HISTORICAL	COMPILATION	DEPARTMENTAL
Lot(s): 2			
DP111846	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1210200			
Lot(s): 50			
DP94626	HISTORICAL	COMPILATION	DEPARTMENTAL
DP94627	HISTORICAL	COMPILATION	DEPARTMENTAL
DP94630	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1147760	HISTORICAL	COMPILATION	CROWN LAND CONVERSION
DP1249658	UNREGISTERED	SURVEY	RESUMPTION OR ACQUISITION
DP1212640			
Lot(s): 3770			
CA174730 - LOT 3770 DP1212640			

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	Status	Surv/Comp	Purpose
DP1217575			
Lot(s): 100, 101			
DP1192452	HISTORICAL	SURVEY	CONSOLIDATION
DP1198234	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
CA100028 - LOTS 8-12 DP1113689			
CA113804 - NPW			
CA113818 - NPW			
CA171860 - LOT 1 DP1198234			
DP1230144			
Lot(s): 2			
DP861360	HISTORICAL	SURVEY	SUBDIVISION
DP1249008			
Lot(s): 1, 2, 3			
DP808737	HISTORICAL	SURVEY	SUBDIVISION
Road			
Polygon Id(s): 158156722, 158156729, 158156730			
CA113804 - NPW			
Polygon Id(s): 173522184			
DP1249658	UNREGISTERED	SURVEY	RESUMPTION OR ACQUISITION
SP70637			
DP793066	HISTORICAL	SURVEY	SUBDIVISION
DP1056323	HISTORICAL	SURVEY	REDEFINITION

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Plan	Surv/Comp	Purpose
DP32146	SURVEY	UNRESEARCHED
DP38459	SURVEY	UNRESEARCHED
DP94629	COMPILATION	DEPARTMENTAL
DP96845	COMPILATION	DEPARTMENTAL
DP112459	COMPILATION	DEPARTMENTAL
DP136771	COMPILATION	LIMITED FOLIO CREATION
DP152471	SURVEY	UNRESEARCHED
DP153553	COMPILATION	UNRESEARCHED
DP158442	SURVEY	UNRESEARCHED
DP160746	SURVEY	UNRESEARCHED
DP163373	SURVEY	UNRESEARCHED
DP198846	COMPILATION	DEPARTMENTAL
DP212641	SURVEY	SUBDIVISION
DP228579	SURVEY	SUBDIVISION
DP234340	SURVEY	SUBDIVISION
DP248024	SURVEY	ROAD OR MOTORWAY
DP508304	SURVEY	SUBDIVISION
DP581011	SURVEY	SUBDIVISION
DP590126	SURVEY	SUBDIVISION
DP599139	SURVEY	SUBDIVISION
DP617289	COMPILATION	CONSOLIDATION
DP632453	SURVEY	SUBDIVISION
DP655824	COMPILATION	DEPARTMENTAL
DP661037	COMPILATION	DEPARTMENTAL
DP700467	SURVEY	SUBDIVISION
DP713005	SURVEY	OLD SYSTEM CONVERSION
DP716191	SURVEY	SUBDIVISION
DP737552	COMPILATION	DEPARTMENTAL
DP750015	COMPILATION	CROWN ADMIN NO.
DP750050	COMPILATION	CROWN ADMIN NO.
DP774345	SURVEY	SUBDIVISION
DP793066	SURVEY	SUBDIVISION
DP808737	SURVEY	SUBDIVISION
DP836429	SURVEY	SUBDIVISION
DP838564	SURVEY	SUBDIVISION
DP845895	SURVEY	PRIMARY APPLN NON SUBDIVISION
DP986861	COMPILATION	DEPARTMENTAL
DP995523	COMPILATION	DEPARTMENTAL
DP998572	COMPILATION	DEPARTMENTAL
DP1005184	SURVEY	SUBDIVISION
DP1022060	SURVEY	OLD SYSTEM CONVERSION
DP1045794	SURVEY	SUBDIVISION
DP1048753	COMPILATION	LIMITED FOLIO CREATION
DP1053721	SURVEY	SUBDIVISION
DP1058427	COMPILATION	LIMITED FOLIO CREATION
DP1062014	COMPILATION	LIMITED FOLIO CREATION
DP1063056	COMPILATION	LIMITED FOLIO CREATION
DP1064103	SURVEY	RESUMPTION OR ACQUISITION
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DP1086276	COMPILATION	LIMITED FOLIO CREATION
DP1086290	COMPILATION	LIMITED FOLIO CREATION
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DP1117744	SURVEY	SUBDIVISION
DP1118342	COMPILATION	LIMITED FOLIO CREATION
DP1133971	COMPILATION	LIMITED FOLIO CREATION
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DP1199537	SURVEY	SUBDIVISION
DP1199537	UNRESEARCHED	SUBDIVISION
DP1201013	SURVEY	SUBDIVISION
DP1210200	SURVEY	SUBDIVISION
DP1210200	UNRESEARCHED	RESUMPTION OR ACQUISITION
DP1212640	COMPILATION	LIMITED FOLIO CREATION

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Plan	Surv/Comp	Purpose
DP1217575	SURVEY	SUBDIVISION
DP1230144	SURVEY	SUBDIVISION
DP1249008	SURVEY	SUBDIVISION
SP70637	COMPILATION	STRATA PLAN

Caution: This information is provided as a searching aid only. Whilst every endeavour is made the 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.

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Req:R732272 /Doc:CP 00391-0642 p /Rev:26-Nov-2012 /Sts:OK.OK /Prt:14-Dec-2018 14:42 /Seq:1 of 1
Ref:advlegs /Src:P

279-164

Suburban Allotments

Survey of 6 Six Portions of Twenty Acres Each

County of Argyle — Parish of Towrang

Applied for by Wm Shelley to Purchase — Under Reg[n] of 1831

1839

Accompanying Letter and Description dated 3 January 18[th] 1839

Lt Purch Advt 1 Jan 1840

Survey 6 Jan 1839

Lots 14. 15. 16. 17. 18 and 19 of Vide of 12 June 1839

Land acquired for Railway purposes 19th May 1865
Under Act. Vic 22 No 19. shown by Deposit Plan
Area for 19 area 3a 0r 34p
Pt. Por 19
2a 2r } Land acquired for Railway purposes
Gaz 29-7-55 Ms 4215 Gbn.

19-1-24
Pt[s] Nos adopted.

Capt[n] Allman 12 Acres.

G.S. Railway to Sydney Ms 5166 Gbn

Goulburn

Marulan

Scale. Twenty Chains to an Inch

PLAN MICROFILMED
NO ADDITIONS OR AMENDMENTS TO BE MADE

391-642

A 391-642

Req:R732282 /Doc:CT 13561-020 CT /Rev:14-Jan-2011 /Sts:OK.OK /Pgs:ALL /Prt:14-Dec-2018 14:45
Ref:advlegs /Src:P

CERTIFICATE OF TITLE

NEW SOUTH WALES

PROPERTY ACT, 1900

13561020

IVA NO 24762

Vol. 13561 Fol. 20

EDITION ISSUED
2 3 1978

(Page 1) Vol. 13561 Fol. 20

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.

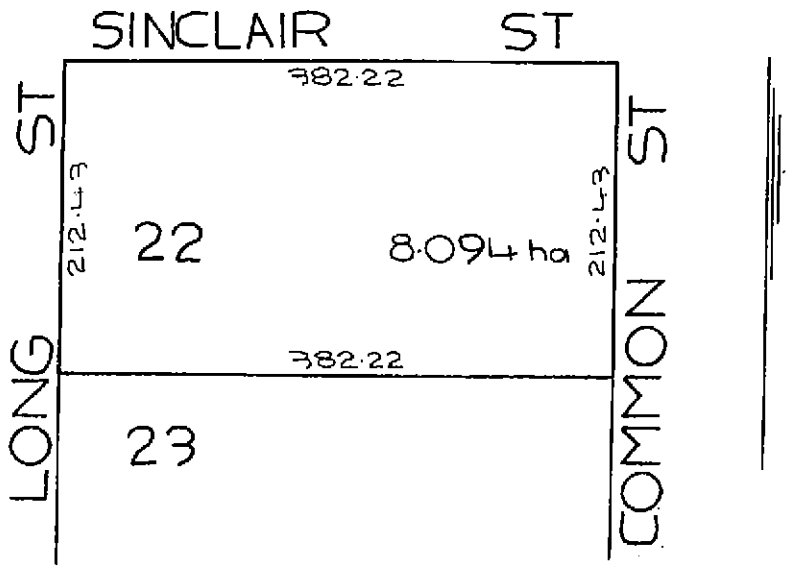
CANCELLED

Registrar General.

PLAN SHOWING LOCATION OF LAND

SEE AUTO FOLIO

LENGTHS ARE IN METRES



IVA 24762 KG.

REDUCTION RATIO 1:5000

ESTATE AND LAND REFERRED TO

P Estate in Fee Simple in Suburban Allotment 22 at North Goulburn in the City of Goulburn Parish of Towrang and County of Argyle being the land granted to William Simonds on 23-9-1839.

FIRST SCHEDULE

~~MELVA JOYCE GOODFELLOW of Greensborough in the State of Victoria, Home Duties.~~

SECOND SCHEDULE

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

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.
PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON
RG 262 NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Req:R732282 /Doc:CT 13561-020 CT /Rev:14-Jan-2011 /Sts:OK.OK /Pgs:ALL /Prt:14-Dec-2018 14:45
Ref:advlegs /Src:P (Pages)

Vol. 13561 Fol. 20

R348110 Te

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Ian Christopher Duck of Goulburn, Labourer	Transfer	R348110	------	8-8-1979	

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

Req:R732295 /Doc:DL AH978744 /Rev:03-Sep-2013 /Sts:NO.OK /Pgs:ALL /Prt:14-Dec-2018 14:46 /Seq:1 of 1
Ref:advlegs /Src:P

Form: 01T
Release: 6·0

TRANSFER

New South Wales
Real Property Act 1900

AH978744P

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the [illegible] by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue (NSW)
Client No: 1411509 3871
Duty: $10 Trans No: 32466076
Asst details:
28/08/13

(A) **TORRENS TITLE** Folio Identifier:22/750050

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
192L	Combined Legal Searches 123117P. Reference: MG: RAMZ GROUP	T TW

(C) **TRANSFEROR** HASHKEL PTY LIMITED ACN 110533303

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 440,000.00 and as regards

(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** RAMZ GROUP PTY LTD ACN:164837503

(I) **TENANCY:**

DATE _____

(J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: HASHKEL PTY LTD ACN 110533303
Authority: S 127 CORPORATIONS ACT 2001

Signature of authorised person:

Name of authorised person: JOHN KELLY
Office held: SOLE DIRECTOR/SECRETARY

Signature of authorised person:

Name of authorised person:
Office held:

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Martes Grima
Signatory's capacity: licensed conveyancer

(K) The transferee certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. [ ] Full name: _____ Signature: _____

** s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

1111

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
14/12/2018 2:43PM

FOLIO: 22/750050

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13561 FOL 20

Recorded	Number	Type of Instrument	C.T. Issue
4/12/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
20/2/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
28/2/1991		AMENDMENT: TITLE DIAGRAM	
8/3/2006	AC164584	CAVEAT	
8/2/2007	AC923288	WITHDRAWAL OF CAVEAT	
8/2/2007	AC916835	REQUEST	
8/2/2007	AC916836	TRANSFER	
8/2/2007	AC916837	MORTGAGE	EDITION 1
19/2/2008	AD776798	DISCHARGE OF MORTGAGE	
19/2/2008	AD776799	MORTGAGE	EDITION 2
28/8/2013	AH978743	DISCHARGE OF MORTGAGE	
28/8/2013	AH978744	TRANSFER	EDITION 3
22/12/2016	AM19356	TRANSFER	EDITION 4

*** END OF SEARCH ***

advlegs PRINTED ON 14/12/2018

Obtained from NSW LRS on 14 December 2018 01:43 PM AEST

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 22/750050

SEARCH DATE	TIME	EDITION NO	DATE
14/12/2018	2:41 PM	4	22/12/2016

LAND

LOT 22 IN DEPOSITED PLAN 750050
AT NORTH GOULBURN
LOCAL GOVERNMENT AREA GOULBURN MULWAREE
PARISH OF TOWRANG COUNTY OF ARGYLE
(FORMERLY KNOWN AS PORTION 22)
TITLE DIAGRAM CROWN PLAN 391.642

FIRST SCHEDULE

EDOUARD JOHN WEHBE
LAUREN MARDI WEHBE
AS JOINT TENANTS (T AM19356)

SECOND SCHEDULE (1 NOTIFICATION)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

UNREGISTERED DEALINGS: PP DP1129889.

*** END OF SEARCH ***

advlegs PRINTED ON 14/12/2018

Obtained from NSW LRS on 14 December 2018 01:41 PM AEST

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.

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Appendix E
SOIL PROFILE LOGS

ENVIRONMENTAL TEST PIT TP01

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202292.3
NORTHING 6149720.4
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP01_0.1 QC01 QC02 TP01_0.1 w/w %	Y		TOPSOIL: Silty SAND: Dark grey, slightly moist, fine sand, organic matter (roots).	
0.2					Clayey SAND: Grey, moist, loose to medium dense, fine sand.	
0.3						
0.4						
0.5	<1	TP01_0.5	Y			
0.6					Sandy CLAY: Light grey mottled orange and red, slightly moist, low plasticity, stiff.	
0.7						
0.8						
0.9						
1	<1	TP01_1.0				
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<1	TP01_2.0				
2.1					Termination depth 2.0 m	
2.2						
2.3						
2.4						

Disclaimer This log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP02

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.5 m

EASTING 202288.5
NORTHING 6149689.1
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP02_0.1 TP02_0.1 EIL	Y		TOPSOIL: Silty SAND: Dark grey, slightly moist, fine sand, organic matter (roots).	
0.2					Clayey SAND: Grey, moist, loose to medium dense, fine sand.	
0.4		TP02_0.5 TP02_0.5 EIL				
0.5	<1					
0.6					Sandy CLAY: Light grey mottled orange and red, slightly moist, low plasticity, stiff.	
1	<1	TP02_1.0				
1.5	<1	TP02_1.5				
1.5					Termination depth 1.5 m (refusal on rock)	

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ENVIRONMENTAL TEST PIT TP03

PROJECT NUMBER EP1063	**DRILLING DATE** 15/01/2019	**EASTING** 202269.6
PROJECT NAME Goulburn Contam Assessment	**DRILLING COMPANY** Nicholls Excavations	**NORTHING** 6149690.9
CLIENT Woodlands Ridge Poultry	**DRILLING METHOD** 5 tonne excavator	**SURFACE RL** 660 m
ADDRESS 52 Sinclair Street, Goulburn, NSW	**TOTAL DEPTH** 1.4 m	**LOGGED BY** NM
		CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP03_0.1	Y		TOPSOIL: Silty SAND: Dark grey, moist, fine sand, organic matter (roots).	
0.2					Clayey SAND: Grey-brown, moist, loose to medium dense, fine sand.	
0.3						
0.4						
0.5	<1	TP03_0.5				
0.6						
0.7						
0.8						
0.9						
1	<1	TP03_1.0				
1.1						
1.2						
1.3						
1.4					Termination depth 1.4 m (refusal on rock)	
1.5						
1.6						
1.7						
1.8						
1.9						
2						
2.1						
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP04

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.7 m

EASTING 202283.3
NORTHING 6149706.2
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP04_0.1	Y		TOPSOIL: Silty SAND: Dark grey, moist, fine sand, organic matter (roots).	
0.5	<1	TP04_0.5	Y		Sandy CLAY: Light grey mottled orange and red, slightly moist, low plasticity, stiff.	
1	<1	TP04_1.0				
1.7	<1	TP04_1.7			Termination depth 1.7 m (refusal on rock)	

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ENVIRONMENTAL TEST PIT TP05

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.4 m

EASTING 202275.3
NORTHING 6149721.9
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP05_0.1	Y		TOPSOIL: Silty SAND: Dark grey, moist, fine sand, organic matter (roots).	
0.5	<1	TP05_0.5			Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
1	<1	TP05_1.0			Sandy CLAY: Light grey mottled orange and red, slightly moist, low plasticity, stiff.	
2	<1	TP05_2.0				Sandstone gravels at 2.1 m
2.4					Termination depth 2.4 m	

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ENVIRONMENTAL TEST PIT TP06

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.3 m

EASTING 202276.3
NORTHING 6149663.4
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP06_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
0.3						
0.4						
0.5	<1	TP06_0.5				
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
0.7						
0.8						
0.9						
1	<1	TP06_1.0				
1.1						
1.2						
1.3					Termination depth 1.3 m (refusal on rock)	
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2						
2.1						
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP07

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.3 m

EASTING 202211.5
NORTHING 6149669.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP07_0.1 QC03 QC04	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
0.5	<1	TP07_0.5	Y			
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
1	<1	TP07_1.0				weathered sandstone gravels at 1.0 m
1.3					Termination depth 1.3 m (refusal on rock)	

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ENVIRONMENTAL TEST PIT TP08

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202206.9
NORTHING 6149721.5
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP08_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
0.5	<1	TP08_0.5				
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
1	<1	TP08_1.0				
2	<1	TP08_2.0				
2.1					Termination depth 2.0 m	

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produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP09

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202115.7
NORTHING 6149736.9
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP09_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
0.5	<1	TP09_0.5	Y			
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
1	<1	TP09_1.0				
2	<1	TP09_2.0				
2.1					Termination depth 2.0 m	

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ENVIRONMENTAL TEST PIT TP10

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202127.1
NORTHING 6149683.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP10_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, moist, loose to medium dense, fine to medium sand.	
0.5	<1	TP10_0.5				
0.8					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
1	<1	TP10_1.0				
1.6						Dark brown with fine sedimentary gravels at 1.7 m
2	<1	TP10_2.0				
2					Termination depth 2.0 m	

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ENVIRONMENTAL TEST PIT TP11

PROJECT NUMBER EP1063	**DRILLING DATE** 15/01/2019	**EASTING** 202050.5
PROJECT NAME Goulburn Contam Assessment	**DRILLING COMPANY** Nicholls Excavations	**NORTHING** 6149693.9
CLIENT Woodlands Ridge Poultry	**DRILLING METHOD** 5 tonne excavator	**SURFACE RL** 660 m
ADDRESS 52 Sinclair Street, Goulburn, NSW	**TOTAL DEPTH** 2.0 m	**LOGGED BY** NM
		CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP11_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, slightly moist, loose to medium dense, fine to medium sand.	
0.5	<1	TP11_0.5	Y			
1	<1	TP11_1.0				
1.2					Sandy CLAY: Light grey mottled orange and red, slightly moist, low plasticity, stiff to very stiff.	
2	<1	TP11_2.0				
2					Termination depth 2.0 m	

ENVIRONMENTAL TEST PIT TP12

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202001.7
NORTHING 6149716.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP12_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, fine sand, organic matter (roots).	
0.2						
0.3					Clayey SAND: Light grey, slightly moist, loose, fine to medium sand.	
0.4						
0.5	<1	TP12_0.5			Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
0.6						
0.7						
0.8						
0.9						
1	<1	TP12_1.0				
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<1	TP12_2.0				
2.1					Termination depth 2.0 m	
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP13

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.3 m

EASTING 202002.5
NORTHING 6149749.7
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP13_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light brown, dry, loose, fine sand.	
0.5	<1	TP13_0.5	Y			
0.8						Ironstone gravels at 0.8 m
1	<1	TP13_1.0				
1.3					Termination depth 1.3 m (refusal on sandstone rock)	

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ENVIRONMENTAL TEST PIT TP14

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.3 m

EASTING 202061.6
NORTHING 6149768.6
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP14_0.1 QC05 QC06	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.5	<1	TP14_0.5	Y		Clayey SAND: Grey, dry, loose, fine sand.	
0.9						Ironstone gravels at 0.9 m
1	<1	TP14_1.0			Sandy CLAY: Light grey mottled orange, dry, low plasticity, stiff.	
2	<1	TP14_2.0				
2.3					Termination depth 2.3 m	

Disclaimer This log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP15

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202075.8
NORTHING 6149793.1
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP15_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND:Light grey-brown, dry, loose, fine sand.	
0.3						
0.4						
0.5	<1	TP15_0.5				
0.6						
0.7						Minor Ironstone gravels at 0.8 m
0.8					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff, with some fine sub-rounded ironstone gravels.	
0.9						
1	<1	TP15_1.0				
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<1	TP15_2.0				
2.1					Termination depth 2.0 m	
2.2						
2.3						
2.4						

Disclaimer This log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP16

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202023.7
NORTHING 6149792.9
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP16_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.5	<1	TP16_0.5	Y		Clayey SAND:Light grey-brown, dry, loose, fine sand.	Minor Ironstone gravels at 0.9 m
1	<1	TP16_1.0				
1.1					Sandy CLAY: Grey mottled red, dry, low plasticity, stiff to very stiff.	
2	<1	TP16_2.0				
2.1					Termination depth 2.0 m	

Disclaimer This log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP17

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.5 m

EASTING 202057.7
NORTHING 6149831.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP17_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.5	<1	TP17_0.5			Clayey SAND: Light grey-brown, dry, loose, fine sand.	Minor Ironstone gravels at 0.8 m
1	<1	TP17_1.0			Sandy CLAY: Light grey mottled orange, dry, low plasticity, stiff.	Becoming very hard at 1.3 m
1.5	<1	TP17_1.5			Termination depth 1.5 m (refusal on hard clay)	

Disclaimer This log is intended for environmental not geotechnical purposes.

produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP18

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.4 m

EASTING 202053.3
NORTHING 6149873.2
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP18_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey-brown, dry, loose, fine sand.	
0.5	<1	TP18_0.5	Y			
0.9						Ironstone gravels at 0.9 m
1	<1	TP18_1.0				
1.4					Termination depth 1.4 m (refusal on rock)	

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ENVIRONMENTAL TEST PIT TP19

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 15/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.4 m

EASTING 202109.3
NORTHING 6149860.6
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP19_0.1 TP19_0.1 w/w%	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND:Grey-brown, dry, loose, fine sand.	
0.5	<1	TP19_0.5				
0.6					Sandy CLAY: Light grey mottled orange, dry, low plasticity, stiff	
1	<1	TP19_1.0				
1.3						Becoming very hard at 1.3 m
1.5	<1				Termination depth 1.5 m (refusal on hard clay)	

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produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP20

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.2 m

EASTING 202136.1
NORTHING 6149786.0
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP20_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.5	<1	TP20_0.5	Y		Clayey SAND: Light grey-brown, dry, loose, fine sand.	
1	<1	TP20_1.0 TP20_1.0 EIL			Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff.	Ironstone gravels at 1.0 m
2	<1	TP20_2.0				
2.2					Termination depth 2.2 m	

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ENVIRONMENTAL TEST PIT TP21

PROJECT NUMBER EP1063	**DRILLING DATE** 16/01/2019	**EASTING** 202158.3
PROJECT NAME Goulburn Contam Assessment	**DRILLING COMPANY** Nicholls Excavations	**NORTHING** 6149831.5
CLIENT Woodlands Ridge Poultry	**DRILLING METHOD** 5 tonne excavator	**SURFACE RL** 660 m
ADDRESS 52 Sinclair Street, Goulburn, NSW	**TOTAL DEPTH** 2.0 m	**LOGGED BY** NM
		CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP21_0.1 TP21_0.1 w/w%	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey-brown, dry, loose, fine sand.	
0.5	<1	TP21_0.5				
0.7					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff, with some fine to medium ironstone gravels.	
1	<1	TP21_1.0				
2	<1	TP21_2.0				
					Termination depth 2.0 m	

ENVIRONMENTAL TEST PIT TP22

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.8 m

EASTING 202193.4
NORTHING 6149846.9
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP22_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.5	<1	TP22_0.5	Y		Clayey SAND: Light grey-brown, dry, loose, fine sand.	
1	<1	TP22_1.0			Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff.	
1.8	<1	TP22_1.8			Termination depth 1.8 m (refusal on hard, dry clay)	

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ENVIRONMENTAL TEST PIT TP23

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.4 m

EASTING 202190.0
NORTHING 6149813.4
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP23_0.1 QC07 QC08	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND: Grey-brown, dry, loose, fine sand.	
0.5	<1	TP23_0.5	Y			
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, very stiff to hard.	
1	<1	TP23_1.0				
1.4					Termination depth 1.4 m (refusal on hard, dry clay)	

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ENVIRONMENTAL TEST PIT TP24

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202182.7
NORTHING 6149769.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP24_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey Sandy GRAVEL: Grey-brown, dry, medium to coarse sub-rounded gravel (ironstone), fine sand.	
0.3						
0.4						
0.5	<1	TP24_0.5				
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
0.7						
0.8						
0.9						
1	<1	TP24_1.0				
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<2	TP24_2.0				
2.1					Termination depth 2.0 m	
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP25

PROJECT NUMBER EP1063	**DRILLING DATE** 16/01/2019	**EASTING** 202226.1
PROJECT NAME Goulburn Contam Assessment	**DRILLING COMPANY** Nicholls Excavations	**NORTHING** 6149781.6
CLIENT Woodlands Ridge Poultry	**DRILLING METHOD** 5 tonne excavator	**SURFACE RL** 660 m
ADDRESS 52 Sinclair Street, Goulburn, NSW	**TOTAL DEPTH** 1.5 m	**LOGGED BY** NM
		CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP25_0.1 TP25_0.1 w/w%	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey Sandy GRAVEL: Grey-brown, dry, medium to coarse sub-rounded gravel (ironstone), fine sand.	
0.5	<1	TP25_0.5				
0.7					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
1	<1	TP25_1.0				
1.5					Termination depth 1.5 m (refusal on hard, dry clay)	

ENVIRONMENTAL TEST PIT TP26

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.2 m

EASTING 202234.0
NORTHING 6149817.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP26_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2						
0.3					Clayey SAND: Light grey, dry, loose, fine sand.	
0.4		TP26_0.5 QC09 QC10				
0.5	<1					
0.6						
0.7					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff.	
0.8						
0.9						
1	<1	TP26_1.0				
1.1						
1.2					Termination depth 1.2 m (refusal on hard, dry clay)	
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2						
2.1						
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP27

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 1.5 m

EASTING 202280.6
NORTHING 6149838.6
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP27_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey SAND: Light grey, dry, loose, fine sand.	
0.3						
0.4						
0.5	<1	TP27_0.5				
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff.	
0.7						
0.8						
0.9						
1	<1	TP27_1.0				
1.1						
1.2						
1.3						
1.4						
1.5					Termination depth 1.5 m (refusal on hard, dry clay)	
1.6						
1.7						
1.8						
1.9						
2						
2.1						
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP28

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202279.8
NORTHING 6149800.8
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP28_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Clayey Sandy GRAVEL: Grey-brown, dry, medium to coarse sub-rounded gravel (ironstone), fine sand, colluvial.	
0.3						
0.4						
0.5	<1	TP28_0.5				
0.6					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff, residual.	
0.7						
0.8						
0.9						
1	<1	TP28_1.0				
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<2	TP28_2.0				
2.1					Termination depth 2.0 m	
2.2						
2.3						
2.4						

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ENVIRONMENTAL TEST PIT TP29

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202269.6
NORTHING 6149764.6
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP29_0.1	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2						
0.3					Clayey SAND: Light grey, dry, loose, fine sand.	
0.4						
0.5	<1	TP29_0.5	Y		Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff.	
0.6						
0.7						
0.8						
0.9		TP29_1.0 QC11 QC12				
1	<1					
1.1						
1.2						
1.3						
1.4						
1.5						
1.6						
1.7						
1.8						
1.9						
2	<1	TP29_2.0			Termination depth 2.0 m	
2.1						
2.2						
2.3						
2.4						

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produced by ESlog.ESdat.net on 24 Jan 2019

ENVIRONMENTAL TEST PIT TP30

PROJECT NUMBER EP1063
PROJECT NAME Goulburn Contam Assessment
CLIENT Woodlands Ridge Poultry
ADDRESS 52 Sinclair Street, Goulburn, NSW

DRILLING DATE 16/01/2019
DRILLING COMPANY Nicholls Excavations
DRILLING METHOD 5 tonne excavator
TOTAL DEPTH 2.0 m

EASTING 202299.0
NORTHING 6149764.4
SURFACE RL 660 m
LOGGED BY NM
CHECKED BY RC

COMMENTS

Depth (m)	PID	Samples	Is Analysed?	Graphic Log	Material Description	Additional Observations
0.1	<1	TP30_0.1 TP30_0.1 w/w%	Y		TOPSOIL: Silty SAND: Dark grey, dry, loose, fine sand, organic matter (roots).	
0.2					Sandy CLAY: Light grey mottled orange and red, dry, low plasticity, stiff to very stiff.	
0.5	<1	TP30_0.5				
1	<1	TP30_1.0				
2	<1	TP30_2.0				
					Termination depth 2.0 m	

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Appendix F
CALIBRATION CERTIFICATE

EP RISK

EP Risk Management Pty Ltd
Photo-ionisation Detector (PID) Calibration Certificate

Project Details		
Date: 14/1/19	Project No.: EP1063	Project Manager: Rachel Condon
Time: 4:00 Pm	Location: 52 Sinclair St, Goulburn	
Weather: Fine		

PID Information				
Calibration	**Actual Value**	**Reading**	**Pass**	
Zero - Fresh Air	0.0 ppm	0.0 ppm	✓	
Span - Isobutylene	100.00 ppm	99.8 ppm	✓	
Set Alarm Limits to	High	100 ppm	Low	50 ppm

Operations Check					
	Performance Check (pump, lamp, sensor and battery voltage check)				
✓	Battery Charge	✓	Filters Check	✓	Spare battery voltage (5.5 V min)
✓	Bump Test	Date: 14/1/19			

Date: 14/1/19 Check By: Nathan McGuire

Signed: N. McGuire

Appendix G
NATA LABORATORY CERTIFICATES

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 277 Woodpark Rd, Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsenviro.com

☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com

☐ Brisbane: 32 Shand St, Stafford QLD 4053 Ph:07 3243 7222 E:samples.brisbane@alsenviro.com

☐ Townsville: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville.environmental@alsenviro.com

☐ Melbourne: 2-4 Westall Rd, Springvale VIC 3171 Ph:03 8549 9600 E: samples.melbourne@alsenviro.com

☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au		

COC SEQUENCE NUMBER (Circle)
COC: (1) 2 3 4 5 6 7
OF: 1 2 3 4 5 6 (7)

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes / No / N/A
Free ice / frozen ice bricks present upon receipt? (Yes) / No / N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	TP01_0.1	15/01/2019	S		1		X							
2	TP01_0.1 w/w %	15/01/2019	S		1			X						
3	TP01_0.5	15/01/2019	S		1	X								
4	TP01_1.0	15/01/2019	S		1									
5	TP01_2.0	15/01/2019	S		1									
6	TP02_0.1	15/01/2019	S		1	X								
7	TP02_0.1 EIL	15/01/2019	S		1				X					
8	TP02_0.5	15/01/2019	S		1									
9	TP02_0.5 EIL	15/01/2019	S		1				X					
10	TP02_1.0	15/01/2019	S		1									
11	TP02_1.5	15/01/2019	S		1									
12	TP03_0.1	15/01/2019	S		1	X								
13	TP03_0.5	15/01/2019	S		1									
14	TP03_1.0	15/01/2019	S		1									
15	TP04_0.1	15/01/2019	S		1		X							
16	TP04_0.5	15/01/2019	S		1	X								
17	TP04_1.0	15/01/2019	S		1									
18	TP04_1.7	15/01/2019	S		1									
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

Environmental Division
Sydney
Work Order Reference
ES1901421

Telephone : - 61-2-8784 8555

E-MAILED

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 277 Woodpark Rd, Smithfield NSW 2164 Ph: 02 8784 8555 E:samples.sydney@alsenviro.com

☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com

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☐ Townsville: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville.environmental@alsenviro.com

☐ Melbourne: 2-4 Westall Rd, Springvale VIC 3171 Ph:03 8549 9600 E: samples.melbourne@alsenviro.com

☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): nathan.mcguire@eprisk.com.au			
Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
19	TP05_0.1	15/01/2019	S		1	X								
20	TP05_0.5	15/01/2019	S		1									
21	TP05_1.0	15/01/2019	S		1									
22	TP05_2.0	15/01/2019	S		1									
23	TP06_0.1	15/01/2019	S		1	X								
24	TP06_0.5	15/01/2019	S		1									
25	TP06_1.0	15/01/2019	S		1									
26	TP07_0.1	15/01/2019	S		1		X							
27	TP07_0.5	15/01/2019	S		1	X								
28	TP07_1.0	15/01/2019	S		1									
29	TP08_0.1	15/01/2019	S		1	X								
30	TP08_0.5	15/01/2019	S		1									
31	TP08_1.0	15/01/2019	S		1									
32	TP08_2.0	15/01/2019	S		1									
33	TP09_0.1	15/01/2019	S		1		X							
34	TP09_0.5	15/01/2019	S		1	X								
35	TP09_1.0	15/01/2019	S		1									
36	TP09_2.0	15/01/2019	S		1									
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

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☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063	COC SEQUENCE NUMBER (Circle)	COC: 1 2 (3) 4 5 6 7
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 (7)
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au		

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	(Yes)	No	N/A
Random Sample Temperature on Receipt:		3.2 °C	
Other comment:			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
37	TP10_0.1	15/01/2019	S		1	X								
38	TP10_0.5	15/01/2019	S		1									
39	TP10_1.0	15/01/2019	S		1									
40	TP10_2.0	15/01/2019	S		1									
41	TP11_0.1	15/01/2019	S		1		X							
42	TP11_0.5	15/01/2019	S		1	X								
43	TP11_1.0	15/01/2019	S		1									
44	TP12_0.1	15/01/2019	S		1	X								
45	TP12_0.5	15/01/2019	S		1									
46	TP12_1.0	15/01/2019	S		1									
47	TP13_0.1	15/01/2019	S		1		X							
48	TP13_0.5	15/01/2019	S		1	X								
49	TP13_1.0	15/01/2019	S		1									
50	TP14_0.1	15/01/2019	S		1		X							
51	TP14_0.5	15/01/2019	S		1	X								
52	TP14_1.0	15/01/2019	S		1									
53	TP14_2.0	15/01/2019	S		1									
54	TP15_0.1	15/01/2019	S		1	X								
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

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☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE:	Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes / No / N/A
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18	Free ice / Dozen ice bricks present upon receipt?	Yes / No / N/A
ORDER NUMBER:	EP1063	COC SEQUENCE NUMBER (Circle)	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 7	Other comment:	3.2
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY: / RECEIVED BY:
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):			
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00 / DATE/TIME: 17/1/19 7:30pm
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au				

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
55	TP15_0.5	15/01/2019	S		1									
56	TP15_1.0	15/01/2019	S		1									
57	TP16_0.1	15/01/2019	S		1		X							
58	TP16_0.5	15/01/2019	S		1	X								
59	TP16_1.0	15/01/2019	S		1									
60	TP16_2.0	15/01/2019	S		1									
61	TP17_0.1	15/01/2019	S		1	X								
62	TP17_0.5	15/01/2019	S		1									
63	TP17_1.0	15/01/2019	S		1									
64	TP17_1.5	15/01/2019	S		1									
65	TP18_0.1	15/01/2019	S		1		X							
66	TP18_0.5	15/01/2019	S		1	X								
67	TP18_1.0	15/01/2019	S		1									
69	TP19_0.1	15/01/2019	S		1	X								
69	TP19_0.1 w/w %	15/01/2019	S		1			X						
70	TP19_0.5	15/01/2019	S		1									
71	TP19_1.0	15/01/2019	S		1									
72	TP20_0.1	16/01/2019	S		1		X							
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

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☐ Townsville: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville.environmental@alsenviro.com

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☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): nathan.mcguire@eprisk.com.au			
Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
73	TP20_0.5	16/01/2019	S		1	X								
74	TP20_1.0	16/01/2019	S		1									
75	TP20_1.0 EIL	16/01/2019	S		1				X					
76	TP20_2.0	16/01/2019	S		1									
77	TP21_0.1	16/01/2019	S		1	X								
78	TP21_0.1 w/w %	16/01/2019	S		1			X						
79	TP21_0.5	16/01/2019	S		1									
80	TP21_1.0	16/01/2019	S		1									
81	TP21_2.0	16/01/2019	S		1									
82	TP22_0.1	16/01/2019	S		1		X							
83	TP22_0.5	16/01/2019	S		1	X								
84	TP22_1.0	16/01/2019	S		1									
85	TP22_1.8	16/01/2019	S		1									
86	TP23_0.1	16/01/2019	S		1		X							
87	TP23_0.5	16/01/2019	S		1	X								
88	TP23_1.0	16/01/2019	S		1									
89	TP24_0.1	16/01/2019	S		1	X								
90	TP24_0.5	16/01/2019	S		1									
				TOTAL										

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

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OFFICE:	Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes / No / N/A
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18	Free ice / Frozen ice bricks present upon receipt?	Yes / No / N/A
ORDER NUMBER:	EP1063		COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt:	3.2 °C
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 7	Other comment:	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY: / RECEIVED BY:
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):			
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00 / DATE/TIME: 17/1/19 7:30pm
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au				

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS (MATRIX: Solid(S) Water(W))			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) (Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
91	TP24_1.0	16/01/2019	S		1									
92	TP24_2.0	16/01/2019	S		1									
93	TP25_0.1	16/01/2019	S		1		X							
94	TP25_0.1 w/w %	16/01/2019	S		1			X						
95	TP25_0.5	16/01/2019	S		1	X								
96	TP25_1.0	16/01/2019	S		1									
97	TP26_0.1	16/01/2019	S		1	X								
98	TP26_0.5	16/01/2019	S		1									
99	TP26_1.0	16/01/2019	S		1									
100	TP27_0.1	16/01/2019	S		1		X							
101	TP27_0.5	16/01/2019	S		1	X								
102	TP27_1.0	16/01/2019	S		1									
103	TP28_0.1	16/01/2019	S		1	X								
104	TP28_0.5	16/01/2019	S		1									
105	TP28_1.0	16/01/2019	S		1									
106	TP28_2.0	16/01/2019	S		1									
107	TP29_0.1	16/01/2019	S		1		X							
108	TP29_0.5	16/01/2019	S		1	X								
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 277 Woodpark Rd, Smithfield NSW 2164 Ph: 02 8784 8555 E:samples.sydney@alsenviro.com

☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com

☐ Brisbane: 32 Shand St Stafford QLD 4053 Ph:07 3243 7222 E:samples.brisbane@alsenviro.com

☐ Townsville: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville.environmental@alsenviro.com

☐ Melbourne: 2-4 Westall Rd, Springvale VIC 3171 Ph:03 8549 9600 E: samples.melbourne@alsenviro.com

☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): nathan.mcguire@eprisk.com.au			
Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7

OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 3.2 °C

Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
109	TP29_1.0	16/01/2019	S		1									
110	TP29_2.0	16/01/2019	S		1									
111	TP30_0.1	16/01/2019	S		1	X								
112	TP30_0.1 w/w %	16/01/2019	S		1			X						
113	TP30_0.5	16/01/2019	S		1									
114	TP30_1.0	16/01/2019	S		1									
115	TP30_2.0	16/01/2019	S		1									
116	QC01	15/01/2019	S		1		X							
117	QC03	15/01/2019	S		1		X							
118	QC05	15/01/2019	S		1		X							
119	QC07	16/01/2019	S		1									
120	QC09	16/01/2019	S		1									
121	QC11	16/01/2019	S		1									
122	RW01	15/01/2019	S		1		X							
123	RW02	16/01/2019	S		1		X							
124	TRIP BLANK		S		1					X				
125	TRIP SPIKE		S		1					X				
126	TSC		S		1									
					TOTAL									

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

127 TP11-2.0
128 TP9-2.0 } 15/1/19.
129 TP15-2.0

CHAIN OF CUSTODY

ALS Laboratory: please tick →

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☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com

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CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
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ORDER NUMBER:	EP1063		
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SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au		

COC SEQUENCE NUMBER (Circle)
COC: (1) 2 3 4 5 6 7
OF: 1 2 3 4 5 6 (7)

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes / No / N/A
Free ice / frozen ice bricks present upon receipt? (Yes) / No / N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	TP01_0.1	15/01/2019	S		1		X							
2	TP01_0.1 w/w %	15/01/2019	S		1			X						
3	TP01_0.5	15/01/2019	S		1	X								
4	TP01_1.0	15/01/2019	S		1									
5	TP01_2.0	15/01/2019	S		1									
6	TP02_0.1	15/01/2019	S		1	X								
7	TP02_0.1 EIL	15/01/2019	S		1				X					
8	TP02_0.5	15/01/2019	S		1									
9	TP02_0.5 EIL	15/01/2019	S		1				X					
10	TP02_1.0	15/01/2019	S		1									
11	TP02_1.5	15/01/2019	S		1									
12	TP03_0.1	15/01/2019	S		1	X								
13	TP03_0.5	15/01/2019	S		1									
14	TP03_1.0	15/01/2019	S		1									
15	TP04_0.1	15/01/2019	S		1		X							
16	TP04_0.5	15/01/2019	S		1	X								
17	TP04_1.0	15/01/2019	S		1									
18	TP04_1.7	15/01/2019	S		1									
				TOTAL										

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

Environmental Division
Sydney
Work Order Reference
ES1901421

Telephone : - 61-2-8784 8555

E-MAILED

CHAIN OF CUSTODY

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SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): nathan.mcguire@eprisk.com.au			
Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
19	TP05_0.1	15/01/2019	S		1	X								
20	TP05_0.5	15/01/2019	S		1									
21	TP05_1.0	15/01/2019	S		1									
22	TP05_2.0	15/01/2019	S		1									
23	TP06_0.1	15/01/2019	S		1	X								
24	TP06_0.5	15/01/2019	S		1									
25	TP06_1.0	15/01/2019	S		1									
26	TP07_0.1	15/01/2019	S		1		X							
27	TP07_0.5	15/01/2019	S		1	X								
28	TP07_1.0	15/01/2019	S		1									
29	TP08_0.1	15/01/2019	S		1	X								
30	TP08_0.5	15/01/2019	S		1									
31	TP08_1.0	15/01/2019	S		1									
32	TP08_2.0	15/01/2019	S		1									
33	TP09_0.1	15/01/2019	S		1		X							
34	TP09_0.5	15/01/2019	S		1	X								
35	TP09_1.0	15/01/2019	S		1									
36	TP09_2.0	15/01/2019	S		1									
				TOTAL										

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
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OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063	COC SEQUENCE NUMBER (Circle)	COC: 1 2 (3) 4 5 6 7
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 (7)
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au		

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	(Yes)	No	N/A
Random Sample Temperature on Receipt:		3.2 °C	
Other comment:			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
37	TP10_0.1	15/01/2019	S		1	X								
38	TP10_0.5	15/01/2019	S		1									
39	TP10_1.0	15/01/2019	S		1									
40	TP10_2.0	15/01/2019	S		1									
41	TP11_0.1	15/01/2019	S		1		X							
42	TP11_0.5	15/01/2019	S		1	X								
43	TP11_1.0	15/01/2019	S		1									
44	TP12_0.1	15/01/2019	S		1	X								
45	TP12_0.5	15/01/2019	S		1									
46	TP12_1.0	15/01/2019	S		1									
47	TP13_0.1	15/01/2019	S		1		X							
48	TP13_0.5	15/01/2019	S		1	X								
49	TP13_1.0	15/01/2019	S		1									
50	TP14_0.1	15/01/2019	S		1		X							
51	TP14_0.5	15/01/2019	S		1	X								
52	TP14_1.0	15/01/2019	S		1									
53	TP14_2.0	15/01/2019	S		1									
54	TP15_0.1	15/01/2019	S		1	X								
				TOTAL										

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
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OFFICE:	Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes / No / N/A
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18	Free ice / Dozen ice bricks present upon receipt?	Yes / No / N/A
ORDER NUMBER:	EP1063	COC SEQUENCE NUMBER (Circle)	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 7	Other comment:	3.2
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY: / RECEIVED BY:
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):			
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00 / DATE/TIME: 17/1/19 7:30pm
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au				

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
55	TP15_0.5	15/01/2019	S		1									
56	TP15_1.0	15/01/2019	S		1									
57	TP16_0.1	15/01/2019	S		1		X							
58	TP16_0.5	15/01/2019	S		1	X								
59	TP16_1.0	15/01/2019	S		1									
60	TP16_2.0	15/01/2019	S		1									
61	TP17_0.1	15/01/2019	S		1	X								
62	TP17_0.5	15/01/2019	S		1									
63	TP17_1.0	15/01/2019	S		1									
64	TP17_1.5	15/01/2019	S		1									
65	TP18_0.1	15/01/2019	S		1		X							
66	TP18_0.5	15/01/2019	S		1	X								
67	TP18_1.0	15/01/2019	S		1									
69	TP19_0.1	15/01/2019	S		1	X								
69	TP19_0.1 w/w %	15/01/2019	S		1			X						
70	TP19_0.5	15/01/2019	S		1									
71	TP19_1.0	15/01/2019	S		1									
72	TP20_0.1	16/01/2019	S		1		X							
				TOTAL										

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☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph:02 4968 9433 E:samples.newcastle@alsenviro.com

☐ Brisbane: 32 Shand St, Stafford QLD 4053 Ph:07 3243 7222 E:samples.brisbane@alsenviro.com

☐ Townsville: 14-15 Desma Ct, Bohle QLD 4818 Ph:07 4796 0600 E: townsville.environmental@alsenviro.com

☐ Melbourne: 2-4 Westall Rd, Springvale VIC 3171 Ph:03 8549 9600 E: samples.melbourne@alsenviro.com

☐ Adelaide: 2-1 Burma Rd, Pooraka SA 5095 Ph: 08 8359 0890 E:adelaide@alsenviro.com

CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): nathan.mcguire@eprisk.com.au			
Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: 3.2 °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
73	TP20_0.5	16/01/2019	S		1	X								
74	TP20_1.0	16/01/2019	S		1									
75	TP20_1.0 EIL	16/01/2019	S		1				X					
76	TP20_2.0	16/01/2019	S		1									
77	TP21_0.1	16/01/2019	S		1	X								
78	TP21_0.1 w/w %	16/01/2019	S		1			X						
79	TP21_0.5	16/01/2019	S		1									
80	TP21_1.0	16/01/2019	S		1									
81	TP21_2.0	16/01/2019	S		1									
82	TP22_0.1	16/01/2019	S		1		X							
83	TP22_0.5	16/01/2019	S		1	X								
84	TP22_1.0	16/01/2019	S		1									
85	TP22_1.8	16/01/2019	S		1									
86	TP23_0.1	16/01/2019	S		1		X							
87	TP23_0.5	16/01/2019	S		1	X								
88	TP23_1.0	16/01/2019	S		1									
89	TP24_0.1	16/01/2019	S		1	X								
90	TP24_0.5	16/01/2019	S		1									
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ Sydney: 277 Woodpark Rd, Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsenviro.com

☐ Newcastle: 5 Rosegum Rd, Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsenviro.com

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CLIENT:	EP Risk	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE:	Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes / No / N/A
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18	Free ice / Frozen ice bricks present upon receipt?	Yes / No / N/A
ORDER NUMBER:	EP1063		COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt:	3.2 °C
PROJECT MANAGER:	Rachel Condon	CONTACT PH: 0423 374 852	OF: 1 2 3 4 5 6 7	Other comment:	
SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY: / RECEIVED BY:
COC emailed to ALS? (YES / NO)		EDD FORMAT (or default):			
Email Reports to (will default to PM if no other addresses are listed):	nathan.mcguire@eprisk.com.au		DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00 / DATE/TIME: 17/1/19 7:30pm
Email Invoice to (will default to PM if no other addresses are listed):	accounts@eprisk.com.au				

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS (MATRIX: Solid(S) Water(W))			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) (Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	8 Metals, OCP, OPP	8 Metals, OCP, OPP, TRH, BTEXN, PAH, Phenols, PCB	Asbestos w/w%	NEPM Screen for soil classification (iron, TOC, CEC, pH and % clay)	TRH (F1), BTEXN				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
91	TP24_1.0	16/01/2019	S		1									
92	TP24_2.0	16/01/2019	S		1									
93	TP25_0.1	16/01/2019	S		1		X							
94	TP25_0.1 w/w %	16/01/2019	S		1			X						
95	TP25_0.5	16/01/2019	S		1	X								
96	TP25_1.0	16/01/2019	S		1									
97	TP26_0.1	16/01/2019	S		1	X								
98	TP26_0.5	16/01/2019	S		1									
99	TP26_1.0	16/01/2019	S		1									
100	TP27_0.1	16/01/2019	S		1		X							
101	TP27_0.5	16/01/2019	S		1	X								
102	TP27_1.0	16/01/2019	S		1									
103	TP28_0.1	16/01/2019	S		1	X								
104	TP28_0.5	16/01/2019	S		1									
105	TP28_1.0	16/01/2019	S		1									
106	TP28_2.0	16/01/2019	S		1									
107	TP29_0.1	16/01/2019	S		1		X							
108	TP29_0.5	16/01/2019	S		1	X								
				TOTAL										

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CHAIN OF CUSTODY

ALS Laboratory: please tick →

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OFFICE:	Newcastle		
PROJECT:	Goulburn Contamination Assessment	ALS QUOTE NO.:	SYBQ-401-18
ORDER NUMBER:	EP1063		
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SAMPLER:	Nathan McGuire	SAMPLER MOBILE: 0422 937 410	
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Email Invoice to (will default to PM if no other addresses are listed): accounts@eprisk.com.au			

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7

OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 3.2 °C

Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME: 17/1/19 11:15	DATE/TIME: 17/1/19 17:00	DATE/TIME: 17/1/19 7:30pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
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109	TP29_1.0	16/01/2019	S		1									
110	TP29_2.0	16/01/2019	S		1									
111	TP30_0.1	16/01/2019	S		1	X								
112	TP30_0.1 w/w %	16/01/2019	S		1			X						
113	TP30_0.5	16/01/2019	S		1									
114	TP30_1.0	16/01/2019	S		1									
115	TP30_2.0	16/01/2019	S		1									
116	QC01	15/01/2019	S		1		X							
117	QC03	15/01/2019	S		1		X							
118	QC05	15/01/2019	S		1		X							
119	QC07	16/01/2019	S		1									
120	QC09	16/01/2019	S		1									
121	QC11	16/01/2019	S		1									
122	RW01	15/01/2019	S		1		X							
123	RW02	16/01/2019	S		1		X							
124	TRIP BLANK		S		1					X				
125	TRIP SPIKE		S		1					X				
126	TSC		S		1									
					TOTAL									

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

127 TP11-2.0
128 TP9-2.0 } 15/1/19.
129 TP15-2.0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES1901421**

Client	: **EP Risk Management**	Laboratory	: Environmental Division Sydney
Contact	: MR NATHAN MCGUIRE (EPRISK)	Contact	: Sepan Mahamad
Address	: 109/283 Alfred St NORTH SYDNEY NSW 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: nathan.mcguire@eprisk.com.au	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: +61 02 4913 5650	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: Goulburn Contamination Assessment	Page	: 1 of 6
Order number	: EP1063	Quote number	: ES2016EPRISK0001 (SYBQ/401/18)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: Nathan McGuire		

Dates

Date Samples Received	: 17-Jan-2019 09:07	Issue Date	: 23-Jan-2019
Client Requested Due Date	: 24-Jan-2019	Scheduled Reporting Date	: **24-Jan-2019**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 6	Temperature	: 3.2'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 129 / 61

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Sample TP11_2.0, TP12_2.0 and TP15_2.0 were received extra and placed on hold.**
- **This is an updated SRN which reflects the removal of container non-compliances.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Asbestos and % Clay analysis will be conducted by ALS Newcastle.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-12 OC/OP Pesticides	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES1901421-001	15-Jan-2019 00:00	TP01_0.1		✓					✓
ES1901421-002	15-Jan-2019 00:00	TP01_0.1 w/w %			✓				
ES1901421-003	15-Jan-2019 00:00	TP01_0.5		✓			✓	✓	
ES1901421-004	15-Jan-2019 00:00	TP01_1.0	✓						
ES1901421-005	15-Jan-2019 00:00	TP01_2.0	✓						
ES1901421-006	15-Jan-2019 00:00	TP02_0.1		✓			✓	✓	
ES1901421-007	15-Jan-2019 00:00	TP02_0.1 EIL		✓		✓			
ES1901421-008	15-Jan-2019 00:00	TP02_0.5	✓						
ES1901421-009	15-Jan-2019 00:00	TP02_0.5 EIL		✓		✓			
ES1901421-010	15-Jan-2019 00:00	TP02_1.0	✓						
ES1901421-011	15-Jan-2019 00:00	TP02_1.5	✓						
ES1901421-012	15-Jan-2019 00:00	TP03_0.1		✓			✓	✓	
ES1901421-013	15-Jan-2019 00:00	TP03_0.5	✓						
ES1901421-014	15-Jan-2019 00:00	TP03_1.0	✓						
ES1901421-015	15-Jan-2019 00:00	TP04_0.1		✓					✓
ES1901421-016	15-Jan-2019 00:00	TP04_0.5		✓			✓	✓	
ES1901421-017	15-Jan-2019 00:00	TP04_1.0	✓						
ES1901421-018	15-Jan-2019 00:00	TP04_1.7	✓						
ES1901421-019	15-Jan-2019 00:00	TP05_0.1		✓			✓	✓	
ES1901421-020	15-Jan-2019 00:00	TP05_0.5	✓						
ES1901421-021	15-Jan-2019 00:00	TP05_1.0	✓						
ES1901421-022	15-Jan-2019 00:00	TP05_2.0	✓						
ES1901421-023	15-Jan-2019 00:00	TP06_0.1		✓			✓	✓	
ES1901421-024	15-Jan-2019 00:00	TP06_0.5	✓						
ES1901421-025	15-Jan-2019 00:00	TP06_1.0	✓						
ES1901421-026	15-Jan-2019 00:00	TP07_0.1		✓					✓
ES1901421-027	15-Jan-2019 00:00	TP07_0.5		✓			✓	✓	
ES1901421-028	15-Jan-2019 00:00	TP07_1.0	✓						
ES1901421-029	15-Jan-2019 00:00	TP08_0.1		✓			✓	✓	
ES1901421-030	15-Jan-2019 00:00	TP08_0.5	✓						
ES1901421-031	15-Jan-2019 00:00	TP08_1.0	✓						
ES1901421-032	15-Jan-2019 00:00	TP08_2.0	✓						
ES1901421-033	15-Jan-2019 00:00	TP09_0.1		✓					✓
ES1901421-034	15-Jan-2019 00:00	TP09_0.5		✓			✓	✓	
ES1901421-035	15-Jan-2019 00:00	TP09_1.0	✓						

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-12 OC/OP Pesticides	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES1901421-036	15-Jan-2019 00:00	TP09_2.0	✓						
ES1901421-037	15-Jan-2019 00:00	TP10_0.1		✓			✓	✓	
ES1901421-038	15-Jan-2019 00:00	TP10_0.5	✓						
ES1901421-039	15-Jan-2019 00:00	TP10_1.0	✓						
ES1901421-040	15-Jan-2019 00:00	TP10_2.0	✓						
ES1901421-041	15-Jan-2019 00:00	TP11_0.1		✓					✓
ES1901421-042	15-Jan-2019 00:00	TP11_0.5		✓			✓	✓	
ES1901421-043	15-Jan-2019 00:00	TP11_1.0	✓						
ES1901421-044	15-Jan-2019 00:00	TP12_0.1		✓			✓	✓	
ES1901421-045	15-Jan-2019 00:00	TP12_0.5	✓						
ES1901421-046	15-Jan-2019 00:00	TP12_1.0	✓						
ES1901421-047	15-Jan-2019 00:00	TP13_0.1		✓					✓
ES1901421-048	15-Jan-2019 00:00	TP13_0.5		✓			✓	✓	
ES1901421-049	15-Jan-2019 00:00	TP13_1.0	✓						
ES1901421-050	15-Jan-2019 00:00	TP14_0.1		✓					✓
ES1901421-051	15-Jan-2019 00:00	TP14_0.5		✓			✓	✓	
ES1901421-052	15-Jan-2019 00:00	TP14_1.0	✓						
ES1901421-053	15-Jan-2019 00:00	TP14_2.0	✓						
ES1901421-054	15-Jan-2019 00:00	TP15_0.1		✓			✓	✓	
ES1901421-055	15-Jan-2019 00:00	TP15_0.5	✓						
ES1901421-056	15-Jan-2019 00:00	TP15_1.0	✓						
ES1901421-057	15-Jan-2019 00:00	TP16_0.1		✓					✓
ES1901421-058	15-Jan-2019 00:00	TP16_0.5		✓			✓	✓	
ES1901421-059	15-Jan-2019 00:00	TP16_1.0	✓						
ES1901421-060	15-Jan-2019 00:00	TP16_2.0	✓						
ES1901421-061	15-Jan-2019 00:00	TP17_0.1		✓			✓	✓	
ES1901421-062	15-Jan-2019 00:00	TP17_0.5	✓						
ES1901421-063	15-Jan-2019 00:00	TP17_1.0	✓						
ES1901421-064	15-Jan-2019 00:00	TP17_1.5	✓						
ES1901421-065	15-Jan-2019 00:00	TP18_0.1		✓					✓
ES1901421-066	15-Jan-2019 00:00	TP18_0.5		✓			✓	✓	
ES1901421-067	15-Jan-2019 00:00	TP18_1.0	✓						
ES1901421-068	15-Jan-2019 00:00	TP19_0.1		✓			✓	✓	
ES1901421-069	15-Jan-2019 00:00	TP19_0.1 w/w %			✓				
ES1901421-070	15-Jan-2019 00:00	TP19_0.5	✓						
ES1901421-071	15-Jan-2019 00:00	TP19_1.0	✓						
ES1901421-072	16-Jan-2019 00:00	TP20_0.1		✓					✓
ES1901421-073	16-Jan-2019 00:00	TP20_0.5		✓			✓	✓	
ES1901421-074	16-Jan-2019 00:00	TP20_1.0	✓						
ES1901421-075	16-Jan-2019 00:00	TP20_1.0 EIL		✓		✓			
ES1901421-076	16-Jan-2019 00:00	TP20_2.0	✓						

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-12 OC/OP Pesticides	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES1901421-077	16-Jan-2019 00:00	TP21_0.1		✓			✓	✓	
ES1901421-078	16-Jan-2019 00:00	TP21_0.1 w/w %			✓				
ES1901421-079	16-Jan-2019 00:00	TP21_0.5	✓						
ES1901421-080	16-Jan-2019 00:00	TP21_1.0	✓						
ES1901421-081	16-Jan-2019 00:00	TP21_2.0	✓						
ES1901421-082	16-Jan-2019 00:00	TP22_0.1		✓					✓
ES1901421-083	16-Jan-2019 00:00	TP22_0.5		✓			✓	✓	
ES1901421-084	16-Jan-2019 00:00	TP22_1.0	✓						
ES1901421-085	16-Jan-2019 00:00	TP22_1.8	✓						
ES1901421-086	16-Jan-2019 00:00	TP23_0.1		✓					✓
ES1901421-087	16-Jan-2019 00:00	TP23_0.5		✓			✓	✓	
ES1901421-088	16-Jan-2019 00:00	TP23_1.0	✓						
ES1901421-089	16-Jan-2019 00:00	TP24_0.1		✓			✓	✓	
ES1901421-090	16-Jan-2019 00:00	TP24_0.5	✓						
ES1901421-091	16-Jan-2019 00:00	TP24_1.0	✓						
ES1901421-092	16-Jan-2019 00:00	TP24_2.0	✓						
ES1901421-093	16-Jan-2019 00:00	TP25_0.1		✓					✓
ES1901421-094	16-Jan-2019 00:00	TP25_0.1 w/w %			✓				
ES1901421-095	16-Jan-2019 00:00	TP25_0.5		✓			✓	✓	
ES1901421-096	16-Jan-2019 00:00	TP25_1.0	✓						
ES1901421-097	16-Jan-2019 00:00	TP26_0.1		✓			✓	✓	
ES1901421-098	16-Jan-2019 00:00	TP26_0.5	✓						
ES1901421-099	16-Jan-2019 00:00	TP26_1.0	✓						
ES1901421-100	16-Jan-2019 00:00	TP27_0.1		✓					✓
ES1901421-101	16-Jan-2019 00:00	TP27_0.5		✓			✓	✓	
ES1901421-102	16-Jan-2019 00:00	TP27_1.0	✓						
ES1901421-103	16-Jan-2019 00:00	TP28_0.1		✓			✓	✓	
ES1901421-104	16-Jan-2019 00:00	TP28_0.5	✓						
ES1901421-105	16-Jan-2019 00:00	TP28_1.0	✓						
ES1901421-106	16-Jan-2019 00:00	TP28_2.0	✓						
ES1901421-107	16-Jan-2019 00:00	TP29_0.1		✓					✓
ES1901421-108	16-Jan-2019 00:00	TP29_0.5		✓			✓	✓	
ES1901421-109	16-Jan-2019 00:00	TP29_1.0	✓						
ES1901421-110	16-Jan-2019 00:00	TP29_2.0	✓						
ES1901421-111	16-Jan-2019 00:00	TP30_0.1		✓			✓	✓	
ES1901421-112	16-Jan-2019 00:00	TP30_0.1 W/W%			✓				
ES1901421-113	16-Jan-2019 00:00	TP30_0.5	✓						
ES1901421-114	16-Jan-2019 00:00	TP30_1.0	✓						
ES1901421-115	16-Jan-2019 00:00	TP30_2.0	✓						
ES1901421-116	15-Jan-2019 00:00	QC01		✓					✓
ES1901421-117	15-Jan-2019 00:00	QC03		✓					✓

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - P-22 (WA/SYD) NEPM Screen for Soil Classification WA	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-12 OC/OP Pesticides	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals
ES1901421-118	15-Jan-2019 00:00	QC05		✓					✓
ES1901421-119	16-Jan-2019 00:00	QC07	✓						
ES1901421-120	16-Jan-2019 00:00	QC09	✓						
ES1901421-121	16-Jan-2019 00:00	QC11	✓						
ES1901421-127	15-Jan-2019 00:00	TP11_2.0	✓						
ES1901421-128	15-Jan-2019 00:00	TP12_2.0	✓						
ES1901421-129	15-Jan-2019 00:00	TP15_2.0	✓						

Matrix: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs
ES1901421-124	09-Jan-2019 00:00	TRIP BLANK	✓
ES1901421-125	09-Jan-2019 00:00	TRIP SPIKE	✓
ES1901421-126	09-Jan-2019 00:00	TSC	✓

Matrix: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	WATER - W-19T TRH/BTEXN/PAH/Phenols/OC/OP/PCB/8 metals
ES1901421-122	15-Jan-2019 00:00	RW01	✓
ES1901421-123	16-Jan-2019 00:00	RW02	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	accounts@eprisk.com.au

NATHAN MCGUIRE (EPRISK)

- *AU Certificate of Analysis - NATA (COA)	Email	nathan.mcguire@eprisk.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nathan.mcguire@eprisk.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nathan.mcguire@eprisk.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nathan.mcguire@eprisk.com.au
- A4 - AU Tax Invoice (INV)	Email	nathan.mcguire@eprisk.com.au
- Attachment - Report (SUBCO)	Email	nathan.mcguire@eprisk.com.au
- Chain of Custody (CoC) (COC)	Email	nathan.mcguire@eprisk.com.au
- EDI Format - ENMRG (ENMRG)	Email	nathan.mcguire@eprisk.com.au
- EDI Format - ESDAT (ESDAT)	Email	nathan.mcguire@eprisk.com.au

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1901421**	Page	: 1 of 72
Client	: **EP Risk Management**	Laboratory	: Environmental Division Sydney
Contact	: MR NATHAN MCGUIRE (EPRISK)	Contact	: Sepan Mahamad
Address	: 109/283 Alfred St NORTH SYDNEY NSW 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 4913 5650	Telephone	: +61 2 8784 8555
Project	: Goulburn Contamination Assessment	Date Samples Received	: 17-Jan-2019 09:07
Order number	: EP1063	Date Analysis Commenced	: 21-Jan-2019
C-O-C number	: ----	Issue Date	: 29-Jan-2019 17:11
Sampler	: Nathan McGuire		
Site	: ----		
Quote number	: SYBQ/401/18		
No. of samples received	: 129		
No. of samples analysed	: 61		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Christopher Owler	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Dian Dao		Sydney Inorganics, Smithfield, NSW
Dianne Blane	Laboratory Coordinator (2IC)	Newcastle - Inorganics, Mayfield West, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: The trip spike and its control have been analysed for volatile TPH and BTEX only. The trip spike and control were prepared in the lab using reagent grade sand spiked with petrol. The spike was dispatched from the lab and the control retained.
- EA200N: Asbestos weights and percentages are not covered under the Scope of NATA Accreditation.
  Weights of Asbestos are based on extracted bulk asbestos, fibre bundles, and/or ACM and do not include respirable fibres (if present)
  The Asbestos (Fines and Fibrous) weight is calculated from the extracted Fibrous Asbestos and Asbestos Fines as an equivalent weight of 100% Asbestos
  Percentages for Asbestos content in ACM are based on the 2013 NEPM default values.
  All calculations of percentage Asbestos under this method are approximate and should be used as a guide only.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: Negative results for vinyl tiles should be confirmed by an independent analytical technique.
- EA200N: ALS laboratory procedures and methods used for the identification and quantitation of asbestos are consistent with AS4964-2004 and the requirements of the 2013 NEPM for Assessment of Site Contamination
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- ED007 and ED008: When Exchangeable Al is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCl - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + Al3+).
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.

- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	----	----	----	----	4.5
EA002: pH 1:5 (Soils)								
pH Value	----	0.1	pH Unit	----	----	----	----	5.6
EA010: Conductivity (1:5)								
Electrical Conductivity @ 25°C	----	1	µS/cm	----	----	----	----	21
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	----	----	----	----	7.1
Moisture Content	----	1.0	%	8.7	----	8.1	7.4	----
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	----	----	----	----	6
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	----	----	----	----	2.53
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	----	----	----
Asbestos Type	1332-21-4	-	--	----	-	----	----	----
Sample weight (dry)	----	0.01	g	----	466	----	----	----
APPROVED IDENTIFIER:	----	-	--	----	C.OWLER	----	----	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	<0.0004	----	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	<0.001	----	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	<0.1	----	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	<0.01	----	----	----
ø Weight Used for % Calculation	----	0.0001	kg	----	0.466	----	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	<0.0004	----	----	----
ED007: Exchangeable Cations								
Exchangeable Calcium	----	0.1	meq/100g	----	----	----	----	1.0
Exchangeable Magnesium	----	0.1	meq/100g	----	----	----	----	0.4
Exchangeable Potassium	----	0.1	meq/100g	----	----	----	----	0.3
Exchangeable Sodium	----	0.1	meq/100g	----	----	----	----	<0.1
Cation Exchange Capacity	----	0.1	meq/100g	----	----	----	----	1.8
EG005T: Total Metals by ICP-AES								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
					Result	Result	Result	Result	Result
EG005T: Total Metals by ICP-AES - Continued									
Iron	7439-89-6	0.005	%		----	----	----	----	**0.243**
Arsenic	7440-38-2	5	mg/kg		<5	----	<5	<5	----
Cadmium	7440-43-9	1	mg/kg		<1	----	<1	<1	----
Chromium	7440-47-3	2	mg/kg		**3**	----	**4**	**3**	----
Copper	7440-50-8	5	mg/kg		<5	----	<5	<5	----
Lead	7439-92-1	5	mg/kg		**5**	----	<5	**6**	----
Nickel	7440-02-0	2	mg/kg		<2	----	<2	<2	----
Zinc	7440-66-6	5	mg/kg		<5	----	<5	**8**	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	----	<0.1	<0.1	----
EP004: Organic Matter									
Organic Matter	----	0.5	%		----	----	----	----	**2.2**
Total Organic Carbon	----	0.5	%		----	----	----	----	**1.3**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Malathion	121-75-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Parathion	56-38-2	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Ethion	563-12-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	----	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	----	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	----	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	----	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	----	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	----	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	----	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	----	----	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	----	----	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	----	----	----	----
Pentachlorophenol	87-86-5	2	mg/kg	<2	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	----	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	----	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	----	----	----	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	----	----	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**72.0**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**80.2**	----	**104**	**74.5**	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**78.2**	----	**65.4**	**58.8**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**67.1**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**70.2**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**39.7**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**87.8**	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**67.2**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**76.8**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**94.8**	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP01_0.1	TP01_0.1 w/w %	TP01_0.5	TP02_0.1	TP02_0.1 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-001	ES1901421-002	ES1901421-003	ES1901421-006	ES1901421-007
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.2	%		**96.4**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		**98.3**	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP02_0.5 EIL	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-009	ES1901421-012	ES1901421-015	ES1901421-016	ES1901421-019
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	5.1	----	----	----	----
EA002: pH 1:5 (Soils)								
pH Value	----	0.1	pH Unit	6.3	----	----	----	----
EA010: Conductivity (1:5)								
Electrical Conductivity @ 25°C	----	1	µS/cm	9	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	11.0	----	----	----	----
Moisture Content	----	1.0	%	----	7.1	9.7	22.2	8.0
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	15	----	----	----	----
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	2.52	----	----	----	----
ED007: Exchangeable Cations								
Exchangeable Calcium	----	0.1	meq/100g	0.6	----	----	----	----
Exchangeable Magnesium	----	0.1	meq/100g	1.5	----	----	----	----
Exchangeable Potassium	----	0.1	meq/100g	<0.1	----	----	----	----
Exchangeable Sodium	----	0.1	meq/100g	<0.1	----	----	----	----
Cation Exchange Capacity	----	0.1	meq/100g	2.2	----	----	----	----
EG005T: Total Metals by ICP-AES								
Iron	7439-89-6	0.005	%	1.16	----	----	----	----
Arsenic	7440-38-2	5	mg/kg	----	<5	<5	8	<5
Cadmium	7440-43-9	1	mg/kg	----	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	----	<2	4	14	<2
Copper	7440-50-8	5	mg/kg	----	<5	<5	7	<5
Lead	7439-92-1	5	mg/kg	----	<5	6	7	<5
Nickel	7440-02-0	2	mg/kg	----	<2	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	----	<5	<5	<5	<5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	<0.1	<0.1	<0.1	<0.1
EP004: Organic Matter								
Organic Matter	----	0.5	%	<0.5	----	----	----	----
Total Organic Carbon	----	0.5	%	<0.5	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP02_0.5 EIL	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-009	ES1901421-012	ES1901421-015	ES1901421-016	ES1901421-019
				Result	Result	Result	Result	Result
EP066: Polychlorinated Biphenyls (PCB) - Continued								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg	----	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP02_0.5 EIL	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-009	ES1901421-012	ES1901421-015	ES1901421-016	ES1901421-019
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Parathion-methyl	298-00-0	0.2	mg/kg		----	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		----	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		----	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP02_0.5 EIL	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-009	ES1901421-012	ES1901421-015	ES1901421-016	ES1901421-019
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP02_0.5 EIL	TP03_0.1	TP04_0.1	TP04_0.5	TP05_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-009	ES1901421-012	ES1901421-015	ES1901421-016	ES1901421-019
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
^ Sum of BTEX	----	0.2	mg/kg		----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg		----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	66.0	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		----	88.5	84.4	88.8	66.6
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		----	65.9	75.9	59.2	53.2
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	69.4	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	71.0	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	45.8	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	86.8	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	73.4	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	76.9	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	96.9	----	----
Toluene-D8	2037-26-5	0.2	%		----	----	102	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	102	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-023	ES1901421-026	ES1901421-027	ES1901421-029	ES1901421-033
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	7.2	6.1	5.0	7.5	6.2
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	4	<2	<2	3	9
Copper	7440-50-8	5	mg/kg	<5	<5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	9	5	11	6	8
Nickel	7440-02-0	2	mg/kg	<2	<2	<2	<2	4
Zinc	7440-66-6	5	mg/kg	12	<5	<5	6	12
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	----	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-023	ES1901421-026	ES1901421-027	ES1901421-029	ES1901421-033
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	<0.5	----	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	<1	----	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	<0.5	----	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-023	ES1901421-026	ES1901421-027	ES1901421-029	ES1901421-033
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	----	<0.5	----	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	----	<2	----	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Fluorene	86-73-7	0.5	mg/kg	----	<0.5	----	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	----	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	----	<0.5	----	----	<0.5
Pyrene	129-00-0	0.5	mg/kg	----	<0.5	----	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	----	----	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	**0.6**	----	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	**1.2**	----	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	<10	----	----	<10
C10 - C14 Fraction	----	50	mg/kg	----	<50	----	----	<50
C15 - C28 Fraction	----	100	mg/kg	----	<100	----	----	<100
C29 - C36 Fraction	----	100	mg/kg	----	<100	----	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	<50	----	----	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	----	<10	----	----	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-023	ES1901421-026	ES1901421-027	ES1901421-029	ES1901421-033
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	<10	----	----	<10
>C10 - C16 Fraction	----	50	mg/kg		----	<50	----	----	<50
>C16 - C34 Fraction	----	100	mg/kg		----	<100	----	----	<100
>C34 - C40 Fraction	----	100	mg/kg		----	<100	----	----	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	<50	----	----	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	<50	----	----	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	<0.2	----	----	<0.2
Toluene	108-88-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	<0.5	----	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	<0.5	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	<0.5	----	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg		----	<0.2	----	----	<0.2
^ Total Xylenes	----	0.5	mg/kg		----	<0.5	----	----	<0.5
Naphthalene	91-20-3	1	mg/kg		----	<1	----	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**67.0**	----	----	**74.0**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**84.6**	**84.5**	**76.4**	**111**	**83.2**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**79.8**	**79.0**	**61.2**	**98.8**	**68.2**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	**65.1**	----	----	**66.0**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	**66.0**	----	----	**67.0**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	**41.0**	----	----	**42.0**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	**80.8**	----	----	**81.8**
Anthracene-d10	1719-06-8	0.5	%		----	**72.4**	----	----	**72.0**
4-Terphenyl-d14	1718-51-0	0.5	%		----	**72.0**	----	----	**72.4**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	**112**	----	----	**103**
Toluene-D8	2037-26-5	0.2	%		----	**120**	----	----	**109**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP06_0.1	TP07_0.1	TP07_0.5	TP08_0.1	TP09_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-023	ES1901421-026	ES1901421-027	ES1901421-029	ES1901421-033
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	**119**	----	----	**107**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-034	ES1901421-037	ES1901421-041	ES1901421-042	ES1901421-044
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	4.5	6.0	7.6	5.4	5.5
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	10	6	4	3	8
Copper	7440-50-8	5	mg/kg	<5	<5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	5	8	6	<5	6
Nickel	7440-02-0	2	mg/kg	2	<2	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	<5	7	7	<5	6
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-034	ES1901421-037	ES1901421-041	ES1901421-042	ES1901421-044
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-034	ES1901421-037	ES1901421-041	ES1901421-042	ES1901421-044
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-034	ES1901421-037	ES1901421-041	ES1901421-042	ES1901421-044
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg		----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg		----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**78.0**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**95.4**	**108**	**99.9**	**111**	**94.2**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**68.1**	**87.5**	**88.8**	**64.0**	**72.6**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	**68.8**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	**71.8**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	**45.5**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	**87.7**	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	**73.3**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	**77.6**	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	**100**	----	----
Toluene-D8	2037-26-5	0.2	%		----	----	**106**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP09_0.5	TP10_0.1	TP11_0.1	TP11_0.5	TP12_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-034	ES1901421-037	ES1901421-041	ES1901421-042	ES1901421-044
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	**106**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-047	ES1901421-048	ES1901421-050	ES1901421-051	ES1901421-054
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.1	5.0	5.8	6.3	5.4
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	4	10	4	12	4
Copper	7440-50-8	5	mg/kg	<5	<5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	<5	6	6	<5	<5
Nickel	7440-02-0	2	mg/kg	<2	3	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	<5	<5	5	<5	<5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-047	ES1901421-048	ES1901421-050	ES1901421-051	ES1901421-054
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-047	ES1901421-048	ES1901421-050	ES1901421-051	ES1901421-054
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-047	ES1901421-048	ES1901421-050	ES1901421-051	ES1901421-054
				Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	----	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**78.0**	----	**75.0**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**99.0**	**97.4**	**99.3**	**107**	**95.2**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**89.4**	**62.0**	**78.9**	**63.0**	**67.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**68.7**	----	**71.8**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**72.8**	----	**70.9**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**44.7**	----	**43.2**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**88.5**	----	**85.7**	----	----
Anthracene-d10	1719-06-8	0.5	%	**75.1**	----	**73.3**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**78.6**	----	**76.4**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**102**	----	**102**	----	----
Toluene-D8	2037-26-5	0.2	%	**108**	----	**107**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP13_0.1	TP13_0.5	TP14_0.1	TP14_0.5	TP15_0.1
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-047	ES1901421-048	ES1901421-050	ES1901421-051	ES1901421-054
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**105**	**----**	**105**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP16_0.1	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-057	ES1901421-058	ES1901421-061	ES1901421-065	ES1901421-066
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	5.9	4.5	5.4	6.6	3.4
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	4	3	4	5	9
Copper	7440-50-8	5	mg/kg	<5	<5	<5	<5	<5
Lead	7439-92-1	5	mg/kg	6	<5	<5	7	<5
Nickel	7440-02-0	2	mg/kg	<2	<2	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	<5	<5	<5	8	<5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	<0.1	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP16_0.1	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-057	ES1901421-058	ES1901421-061	ES1901421-065	ES1901421-066
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	----	<0.5	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	----	<1	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP16_0.1	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-057	ES1901421-058	ES1901421-061	ES1901421-065	ES1901421-066
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	----	<0.5	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	----	<2	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	----	**0.6**	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	----	**1.2**	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	<10	----
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	<50	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	<100	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP16_0.1	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-057	ES1901421-058	ES1901421-061	ES1901421-065	ES1901421-066
				Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	<10	----
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	<100	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	<50	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	<50	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**73.0**	----	----	**102**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**91.0**	**98.6**	**108**	**133**	**111**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**76.7**	**62.8**	**93.2**	**106**	**77.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**67.5**	----	----	**71.5**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**68.0**	----	----	**73.2**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**40.8**	----	----	**44.3**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**82.5**	----	----	**88.6**	----
Anthracene-d10	1719-06-8	0.5	%	**73.5**	----	----	**71.8**	----
4-Terphenyl-d14	1718-51-0	0.5	%	**73.7**	----	----	**78.4**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**105**	----	----	**97.4**	----
Toluene-D8	2037-26-5	0.2	%	**110**	----	----	**102**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP16_0.1	TP16_0.5	TP17_0.1	TP18_0.1	TP18_0.5
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-057	ES1901421-058	ES1901421-061	ES1901421-065	ES1901421-066
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**106**	----	----	**101**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
				Result	Result	Result	Result	Result
EA001: pH in soil using 0.01M CaCl extract								
pH (CaCl2)	----	0.1	pH Unit	----	----	----	----	4.4
EA002: pH 1:5 (Soils)								
pH Value	----	0.1	pH Unit	----	----	----	----	5.7
EA010: Conductivity (1:5)								
Electrical Conductivity @ 25°C	----	1	µS/cm	----	----	----	----	49
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	----	----	----	----	23.7
Moisture Content	----	1.0	%	6.9	----	7.4	6.9	----
EA150: Soil Classification based on Particle Size								
Clay (<2 µm)	----	1	%	----	----	----	----	50
EA152: Soil Particle Density								
Soil Particle Density (Clay/Silt/Sand)	----	0.01	g/cm3	----	----	----	----	2.58
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	----	----	----
Asbestos Type	1332-21-4	-	--	----	-	----	----	----
Sample weight (dry)	----	0.01	g	----	494	----	----	----
APPROVED IDENTIFIER:	----	-	--	----	C.OWLER	----	----	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	<0.0004	----	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	<0.001	----	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	<0.1	----	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	<0.01	----	----	----
ø Weight Used for % Calculation	----	0.0001	kg	----	0.494	----	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	<0.0004	----	----	----
ED007: Exchangeable Cations								
Exchangeable Calcium	----	0.1	meq/100g	----	----	----	----	0.4
Exchangeable Magnesium	----	0.1	meq/100g	----	----	----	----	5.6
Exchangeable Potassium	----	0.1	meq/100g	----	----	----	----	0.2
Exchangeable Sodium	----	0.1	meq/100g	----	----	----	----	1.0
Cation Exchange Capacity	----	0.1	meq/100g	----	----	----	----	7.2
EG005T: Total Metals by ICP-AES								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
					Result	Result	Result	Result	Result
EG005T: Total Metals by ICP-AES - Continued									
Iron	7439-89-6	0.005	%		----	----	----	----	**2.52**
Arsenic	7440-38-2	5	mg/kg		<5	----	<5	<5	----
Cadmium	7440-43-9	1	mg/kg		<1	----	<1	<1	----
Chromium	7440-47-3	2	mg/kg		**4**	----	**8**	**5**	----
Copper	7440-50-8	5	mg/kg		<5	----	<5	<5	----
Lead	7439-92-1	5	mg/kg		**7**	----	**6**	<5	----
Nickel	7440-02-0	2	mg/kg		<2	----	<2	<2	----
Zinc	7440-66-6	5	mg/kg		**6**	----	<5	<5	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	----	<0.1	<0.1	----
EP004: Organic Matter									
Organic Matter	----	0.5	%		----	----	----	----	<0.5
Total Organic Carbon	----	0.5	%		----	----	----	----	<0.5
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endrin	72-20-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Malathion	121-75-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Parathion	56-38-2	0.2	mg/kg		<0.2	----	<0.2	<0.2	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Ethion	563-12-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
			Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	----	<0.5	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg	----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	----	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		----	----	<50	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		----	----	<0.2	----	----
^ **Total Xylenes**	----	0.5	mg/kg		----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**78.0**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**100**	----	**96.3**	**89.5**	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**86.8**	----	**78.0**	**60.4**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	**69.5**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	**68.6**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	**41.4**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	**83.7**	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	**73.5**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	**74.5**	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	**99.3**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP19_0.1	TP19_0.1 w/w %	TP20_0.1	TP20_0.5	TP20_1.0 EIL
				Client sampling date / time	15-Jan-2019 00:00	15-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-068	ES1901421-069	ES1901421-072	ES1901421-073	ES1901421-075
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.2	%		----	----	**104**	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	**100**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP21_0.1	TP21_0.1 w/w %	TP22_0.1	TP22_0.5	TP23_0.1
			Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-077	ES1901421-078	ES1901421-082	ES1901421-083	ES1901421-086
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	8.4	----	5.7	5.2	5.6
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	----	----	----
Asbestos Type	1332-21-4	-	--	----	-	----	----	----
Sample weight (dry)	----	0.01	g	----	566	----	----	----
APPROVED IDENTIFIER:	----	-	--	----	C.OWLER	----	----	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	<0.0004	----	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	<0.001	----	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	<0.1	----	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	<0.01	----	----	----
ø Weight Used for % Calculation	----	0.0001	kg	----	0.566	----	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	<0.0004	----	----	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	----	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	----	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	5	----	6	6	5
Copper	7440-50-8	5	mg/kg	<5	----	<5	<5	<5
Lead	7439-92-1	5	mg/kg	6	----	8	<5	6
Nickel	7440-02-0	2	mg/kg	<2	----	<2	<2	<2
Zinc	7440-66-6	5	mg/kg	<5	----	7	<5	6
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP21_0.1	TP21_0.1 w/w %	TP22_0.1	TP22_0.5	TP23_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-077	ES1901421-078	ES1901421-082	ES1901421-083	ES1901421-086
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	----	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP21_0.1	TP21_0.1 w/w %	TP22_0.1	TP22_0.5	TP23_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-077	ES1901421-078	ES1901421-082	ES1901421-083	ES1901421-086
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP21_0.1	TP21_0.1 w/w %	TP22_0.1	TP22_0.5	TP23_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-077	ES1901421-078	ES1901421-082	ES1901421-083	ES1901421-086
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	<10
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	<50
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	<100
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	<10	----	<10
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	<50
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	<100
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	<50	----	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg		----	----	<0.2	----	<0.2
^ Total Xylenes	----	0.5	mg/kg		----	----	<0.5	----	<0.5
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**80.0**	----	**65.0**
EP068S: Organochlorine Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP21_0.1	TP21_0.1 w/w %	TP22_0.1	TP22_0.5	TP23_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-077	ES1901421-078	ES1901421-082	ES1901421-083	ES1901421-086
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%		78.5	----	103	92.2	80.3
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		68.2	----	85.1	75.0	63.9
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	68.6	----	72.0
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	69.4	----	67.5
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	43.1	----	42.1
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	83.7	----	81.3
Anthracene-d10	1719-06-8	0.5	%		----	----	74.0	----	73.2
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	74.4	----	72.9
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	101	----	107
Toluene-D8	2037-26-5	0.2	%		----	----	103	----	107
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	101	----	108

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.1 w/w %	TP25_0.5
			Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-087	ES1901421-089	ES1901421-093	ES1901421-094	ES1901421-095
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	4.4	7.8	5.5	----	12.4
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	----	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	----	----	No	----
Asbestos Type	1332-21-4	-	--	----	----	----	-	----
Sample weight (dry)	----	0.01	g	----	----	----	550	----
APPROVED IDENTIFIER:	----	-	--	----	----	----	C.OWLER	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	----	----	<0.0004	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	----	----	<0.001	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	----	----	<0.1	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	----	----	<0.01	----
ø Weight Used for % Calculation	----	0.0001	kg	----	----	----	0.550	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	----	----	<0.0004	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	----	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	<1
Chromium	7440-47-3	2	mg/kg	12	6	10	----	25
Copper	7440-50-8	5	mg/kg	<5	<5	<5	----	15
Lead	7439-92-1	5	mg/kg	5	6	8	----	19
Nickel	7440-02-0	2	mg/kg	<2	<2	<2	----	9
Zinc	7440-66-6	5	mg/kg	<5	<5	6	----	15
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	----	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.1 w/w %	TP25_0.5
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-087	ES1901421-089	ES1901421-093	ES1901421-094	ES1901421-095
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.1 w/w %	TP25_0.5
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-087	ES1901421-089	ES1901421-093	ES1901421-094	ES1901421-095
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.1 w/w %	TP25_0.5
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-087	ES1901421-089	ES1901421-093	ES1901421-094	ES1901421-095
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg		----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg		----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**75.0**	----	----
EP068S: Organochlorine Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP23_0.5	TP24_0.1	TP25_0.1	TP25_0.1 w/w %	TP25_0.5
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-087	ES1901421-089	ES1901421-093	ES1901421-094	ES1901421-095
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%		86.5	104	97.8	----	81.4
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		66.7	82.8	72.2	----	62.7
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	69.1	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	69.1	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	43.5	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	83.0	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	72.3	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	74.4	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	112	----	----
Toluene-D8	2037-26-5	0.2	%		----	----	112	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	111	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP26_0.1	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1
			Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-097	ES1901421-100	ES1901421-101	ES1901421-103	ES1901421-107
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	7.1	6.5	11.5	4.7	3.9
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	15	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	7	7	20	24	4
Copper	7440-50-8	5	mg/kg	<5	<5	12	15	<5
Lead	7439-92-1	5	mg/kg	7	8	12	10	7
Nickel	7440-02-0	2	mg/kg	<2	<2	10	3	<2
Zinc	7440-66-6	5	mg/kg	5	<5	12	10	6
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	----	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP26_0.1	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-097	ES1901421-100	ES1901421-101	ES1901421-103	ES1901421-107
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	<0.5	----	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	<1	----	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	<0.5	----	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP26_0.1	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1
			Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-097	ES1901421-100	ES1901421-101	ES1901421-103	ES1901421-107
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	----	<0.5	----	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	----	<2	----	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Fluorene	86-73-7	0.5	mg/kg	----	<0.5	----	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	----	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg	----	<0.5	----	----	<0.5
Pyrene	129-00-0	0.5	mg/kg	----	<0.5	----	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	----	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	----	----	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	----	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	----	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	**0.6**	----	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	**1.2**	----	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	<10	----	----	<10
C10 - C14 Fraction	----	50	mg/kg	----	<50	----	----	<50
C15 - C28 Fraction	----	100	mg/kg	----	<100	----	----	<100
C29 - C36 Fraction	----	100	mg/kg	----	<100	----	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	<50	----	----	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	----	<10	----	----	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP26_0.1	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-097	ES1901421-100	ES1901421-101	ES1901421-103	ES1901421-107
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	<10	----	----	<10
>C10 - C16 Fraction	----	50	mg/kg		----	<50	----	----	<50
>C16 - C34 Fraction	----	100	mg/kg		----	<100	----	----	<100
>C34 - C40 Fraction	----	100	mg/kg		----	<100	----	----	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		----	<50	----	----	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		----	<50	----	----	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	<0.2	----	----	<0.2
Toluene	108-88-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	<0.5	----	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	<0.5	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	<0.5	----	----	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		----	<0.2	----	----	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		----	<0.5	----	----	<0.5
Naphthalene	91-20-3	1	mg/kg		----	<1	----	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**61.0**	----	----	**75.0**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**90.8**	**79.5**	**114**	**90.8**	**94.3**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**70.3**	**58.3**	**86.7**	**71.5**	**68.6**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	**69.5**	----	----	**67.4**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	**68.9**	----	----	**69.1**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	**43.5**	----	----	**43.9**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	**83.5**	----	----	**83.5**
Anthracene-d10	1719-06-8	0.5	%		----	**72.3**	----	----	**74.6**
4-Terphenyl-d14	1718-51-0	0.5	%		----	**74.4**	----	----	**74.5**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	**102**	----	----	**105**
Toluene-D8	2037-26-5	0.2	%		----	**97.4**	----	----	**100**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP26_0.1	TP27_0.1	TP27_0.5	TP28_0.1	TP29_0.1
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-097	ES1901421-100	ES1901421-101	ES1901421-103	ES1901421-107
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	**102**	----	----	**102**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TP29_0.5	TP30_0.1	TP30_0.1 W/W%	QC01	QC03
			Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit	ES1901421-108	ES1901421-111	ES1901421-112	ES1901421-116	ES1901421-117
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**14.6**	**6.0**	----	**9.0**	**5.8**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	**No**	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	----	**No**	----	----
Asbestos Type	1332-21-4	-	--	----	----	-	----	----
Sample weight (dry)	----	0.01	g	----	----	**475**	----	----
APPROVED IDENTIFIER:	----	-	--	----	----	**C.OWLER**	----	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	----	<0.0004	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	----	<0.001	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	----	<0.1	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	----	<0.01	----	----
ø Weight Used for % Calculation	----	0.0001	kg	----	----	**0.475**	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	----	<0.0004	----	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**18**	<5	----	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	<1	<1
Chromium	7440-47-3	2	mg/kg	**25**	**4**	----	**3**	**2**
Copper	7440-50-8	5	mg/kg	**15**	<5	----	<5	<5
Lead	7439-92-1	5	mg/kg	**10**	**8**	----	**6**	**5**
Nickel	7440-02-0	2	mg/kg	**4**	<2	----	<2	<2
Zinc	7440-66-6	5	mg/kg	**11**	**5**	----	**6**	**5**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP29_0.5	TP30_0.1	TP30_0.1 W/W%	QC01	QC03
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-108	ES1901421-111	ES1901421-112	ES1901421-116	ES1901421-117
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP29_0.5	TP30_0.1	TP30_0.1 W/W%	QC01	QC03
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-108	ES1901421-111	ES1901421-112	ES1901421-116	ES1901421-117
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	----	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	----	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	----	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	----	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	----	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	----	----	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	----	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	----	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	----	----	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	----	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP29_0.5	TP30_0.1	TP30_0.1 W/W%	QC01	QC03
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-108	ES1901421-111	ES1901421-112	ES1901421-116	ES1901421-117
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	----	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	----	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	----	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	----	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	----	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	<10
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	<50
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<100	<100
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		----	----	----	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	----	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	----	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		----	----	----	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		----	----	----	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		----	----	----	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	----	**78.0**	**88.0**
EP068S: Organochlorine Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TP29_0.5	TP30_0.1	TP30_0.1 W/W%	QC01	QC03
				Client sampling date / time	16-Jan-2019 00:00	16-Jan-2019 00:00	16-Jan-2019 00:00	15-Jan-2019 00:00	15-Jan-2019 00:00
Compound	CAS Number	LOR	Unit		ES1901421-108	ES1901421-111	ES1901421-112	ES1901421-116	ES1901421-117
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%		116	94.0	----	97.1	109
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		78.2	70.2	----	73.4	79.3
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	----	68.6	70.9
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	67.4	71.9
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	43.8	46.3
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	82.9	87.3
Anthracene-d10	1719-06-8	0.5	%		----	----	----	72.1	75.9
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	73.0	77.2
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	----	108	106
Toluene-D8	2037-26-5	0.2	%		----	----	----	108	105
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	----	107	103

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	QC05	TRIP BLANK	TRIP SPIKE	TSC	----
			Client sampling date / time	15-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	----
Compound	CAS Number	LOR	Unit	ES1901421-118	ES1901421-124	ES1901421-125	ES1901421-126	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**5.9**	----	----	----	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	----	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
Chromium	7440-47-3	2	mg/kg	**3**	----	----	----	----
Copper	7440-50-8	5	mg/kg	<5	----	----	----	----
Lead	7439-92-1	5	mg/kg	**6**	----	----	----	----
Nickel	7440-02-0	2	mg/kg	<2	----	----	----	----
Zinc	7440-66-6	5	mg/kg	**5**	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	----	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	----	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	----	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	----	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	----	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	----	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	----	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	----	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	----	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	----	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	----	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	QC05	TRIP BLANK	TRIP SPIKE	TSC	----
				Client sampling date / time	15-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1901421-118	ES1901421-124	ES1901421-125	ES1901421-126	--------
					Result	Result	Result	Result	----
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	----	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	----	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	----	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	----	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	----	----	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	----	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	----	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	----	----	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	----	----	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	----	----	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	----	----	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	----	----	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	----	----	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	----	----	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	QC05	TRIP BLANK	TRIP SPIKE	TSC	----
				Client sampling date / time	15-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1901421-118	ES1901421-124	ES1901421-125	ES1901421-126	--------
					Result	Result	Result	Result	----
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	----	----	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	----	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	----	----	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	**63**	**65**	----
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	**76**	**78**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	QC05	TRIP BLANK	TRIP SPIKE	TSC	----
			Client sampling date / time	15-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	----
Compound	CAS Number	LOR	Unit	ES1901421-118	ES1901421-124	ES1901421-125	ES1901421-126	--------
				Result	Result	Result	Result	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	**36**	**37**	----
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	**0.3**	**0.3**	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	**18.8**	**19.4**	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	**2.6**	**2.7**	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	**13.2**	**13.6**	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	**5.2**	**5.3**	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	**40.1**	**41.3**	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	**18.4**	**18.9**	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**68.0**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**80.6**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**60.3**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**68.2**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**71.2**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**41.0**	----	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**79.1**	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%	**69.0**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**69.6**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**104**	**109**	**96.6**	**100**	----
Toluene-D8	2037-26-5	0.2	%	**103**	**109**	**118**	**103**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	QC05	TRIP BLANK	TRIP SPIKE	TSC	----
				Client sampling date / time	15-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	09-Jan-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1901421-118	ES1901421-124	ES1901421-125	ES1901421-126	--------
					Result	Result	Result	Result	----
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**103**	**108**	**102**	**102**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	RW01	RW02	----	----	----
			Client sampling date / time	15-Jan-2019 00:00	16-Jan-2019 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES1901421-122	ES1901421-123	--------	--------	--------
				Result	Result	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	----	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	----	----	----
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	----	----	----
EP066: Polychlorinated Biphenyls (PCB)								
^ **Total Polychlorinated biphenyls**	----	1	µg/L	<1	<1	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	----	----	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	----	----	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	----	----	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	----	----	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	----	----	----
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	----	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	----	----	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	----	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	----	----	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	----	----	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	----	----	----
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	----	----	----
Endrin	72-20-8	0.5	µg/L	<0.5	<0.5	----	----	----
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	<0.5	----	----	----
4.4`-DDD	72-54-8	0.5	µg/L	<0.5	<0.5	----	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	<0.5	----	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	<0.5	----	----	----
4.4`-DDT	50-29-3	2.0	µg/L	<2.0	<2.0	----	----	----
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	<0.5	----	----	----
Methoxychlor	72-43-5	2.0	µg/L	<2.0	<2.0	----	----	----
^ **Total Chlordane (sum)**	----	0.5	µg/L	<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	RW01	RW02	----	----	----
			Client sampling date / time	15-Jan-2019 00:00	16-Jan-2019 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES1901421-122	ES1901421-123	--------	--------	--------
				Result	Result	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued								
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/L	<0.5	<0.5	----	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L	<0.5	<0.5	----	----	----
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.5	µg/L	<0.5	<0.5	----	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	<0.5	----	----	----
Monocrotophos	6923-22-4	2.0	µg/L	<2.0	<2.0	----	----	----
Dimethoate	60-51-5	0.5	µg/L	<0.5	<0.5	----	----	----
Diazinon	333-41-5	0.5	µg/L	<0.5	<0.5	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	<0.5	----	----	----
Parathion-methyl	298-00-0	2.0	µg/L	<2.0	<2.0	----	----	----
Malathion	121-75-5	0.5	µg/L	<0.5	<0.5	----	----	----
Fenthion	55-38-9	0.5	µg/L	<0.5	<0.5	----	----	----
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	<0.5	----	----	----
Parathion	56-38-2	2.0	µg/L	<2.0	<2.0	----	----	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	<0.5	----	----	----
Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	<0.5	----	----	----
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	<0.5	----	----	----
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	<0.5	----	----	----
Prothiofos	34643-46-4	0.5	µg/L	<0.5	<0.5	----	----	----
Ethion	563-12-2	0.5	µg/L	<0.5	<0.5	----	----	----
Carbophenothion	786-19-6	0.5	µg/L	<0.5	<0.5	----	----	----
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	<0.5	----	----	----
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	1.0	µg/L	<1.0	<1.0	----	----	----
2-Chlorophenol	95-57-8	1.0	µg/L	<1.0	<1.0	----	----	----
2-Methylphenol	95-48-7	1.0	µg/L	<1.0	<1.0	----	----	----
3- & 4-Methylphenol	1319-77-3	2.0	µg/L	<2.0	<2.0	----	----	----
2-Nitrophenol	88-75-5	1.0	µg/L	<1.0	<1.0	----	----	----
2.4-Dimethylphenol	105-67-9	1.0	µg/L	<1.0	<1.0	----	----	----
2.4-Dichlorophenol	120-83-2	1.0	µg/L	<1.0	<1.0	----	----	----
2.6-Dichlorophenol	87-65-0	1.0	µg/L	<1.0	<1.0	----	----	----
4-Chloro-3-methylphenol	59-50-7	1.0	µg/L	<1.0	<1.0	----	----	----
2.4.6-Trichlorophenol	88-06-2	1.0	µg/L	<1.0	<1.0	----	----	----
2.4.5-Trichlorophenol	95-95-4	1.0	µg/L	<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	RW01	RW02	----	----	----
				Client sampling date / time	15-Jan-2019 00:00	16-Jan-2019 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES1901421-122	ES1901421-123	--------	--------	--------
					Result	Result	----	----	----
EP075(SIM)A: Phenolic Compounds - Continued									
Pentachlorophenol	87-86-5	2.0	µg/L		<2.0	<2.0	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	----	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	----	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	<1.0	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	<0.5	----	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		<0.5	<0.5	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	<50	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	<100	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	<50	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	<20	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	<100	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	<100	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	<100	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	<100	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	RW01	RW02	----	----	----
			Client sampling date / time	15-Jan-2019 00:00	16-Jan-2019 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES1901421-122	ES1901421-123	--------	--------	--------
				Result	Result	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	----	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	----	----	----
Toluene	108-88-3	2	µg/L	3	3	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	<2	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	----	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	<2	----	----	----
^ Total Xylenes	----	2	µg/L	<2	<2	----	----	----
^ Sum of BTEX	----	1	µg/L	3	3	----	----	----
Naphthalene	91-20-3	5	µg/L	<5	<5	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	1	%	89.0	81.0	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.5	%	98.2	90.8	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.5	%	80.4	72.7	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	1.0	%	24.8	17.2	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%	57.4	41.1	----	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%	75.7	47.7	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	1.0	%	97.3	87.2	----	----	----
Anthracene-d10	1719-06-8	1.0	%	92.6	93.8	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%	84.2	94.4	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	108	110	----	----	----
Toluene-D8	2037-26-5	2	%	108	112	----	----	----
4-Bromofluorobenzene	460-00-4	2	%	103	107	----	----	----

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	TP01_0.1 w/w % - 15-Jan-2019 00:00	Mid brown clay soil.
EA200: Description	TP19_0.1 w/w % - 15-Jan-2019 00:00	Mid brown clay soil.
EA200: Description	TP21_0.1 w/w % - 16-Jan-2019 00:00	Mid brown clay soil.
EA200: Description	TP25_0.1 w/w % - 16-Jan-2019 00:00	Mid brown clay soil.
EA200: Description	TP30_0.1 W/W% - 16-Jan-2019 00:00	Mid brown clay soil.

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	29	129
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	67	111
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	67	111
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	***Low***	***High***
EP080S: TPH(V)/BTEX Surrogates - Continued			

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES1901421**	Page	: 1 of 28
Client	: **EP Risk Management**	Laboratory	: Environmental Division Sydney
Contact	: MR NATHAN MCGUIRE (EPRISK)	Contact	: Sepan Mahamad
Address	: 109/283 Alfred St NORTH SYDNEY NSW 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 4913 5650	Telephone	: +61 2 8784 8555
Project	: Goulburn Contamination Assessment	Date Samples Received	: 17-Jan-2019
Order number	: EP1063	Date Analysis Commenced	: 21-Jan-2019
C-O-C number	: ----	Issue Date	: 29-Jan-2019
Sampler	: Nathan McGuire		
Site	: ----		
Quote number	: SYBQ/401/18		
No. of samples received	: 129		
No. of samples analysed	: 61		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Christopher Owler	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Dian Dao		Sydney Inorganics, Smithfield, NSW
Dianne Blane	Laboratory Coordinator (2IC)	Newcastle - Inorganics, Mayfield West, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA001: pH in soil using 0.01M CaCl extract (QC Lot: 2150490)									
ES1901421-007	TP02_0.1 EIL	EA001: pH (CaCl2)	----	0.1	pH Unit	4.5	4.6	0.00	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 2150394)									
EB1901290-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	9.0	8.9	1.45	0% - 20%
ES1901758-004	Anonymous	EA002: pH Value	----	0.1	pH Unit	7.5	7.6	0.00	0% - 20%
EA002: pH 1:5 (Soils) (QC Lot: 2150941)									
ES1901381-008	Anonymous	EA002: pH Value	----	0.1	pH Unit	6.7	6.8	0.00	0% - 20%
ES1901421-007	TP02_0.1 EIL	EA002: pH Value	----	0.1	pH Unit	5.6	5.6	0.00	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 2150395)									
EB1901290-001	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	2250	1910	16.5	0% - 20%
ES1901758-004	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	1270	1250	1.27	0% - 20%
EA010: Conductivity (1:5) (QC Lot: 2150942)									
ES1901421-007	TP02_0.1 EIL	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	21	23	10.6	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2146980)									
ES1901381-087	Anonymous	EA055: Moisture Content	----	0.1	%	15.8	16.2	2.88	0% - 50%
ES1901421-023	TP06_0.1	EA055: Moisture Content	----	0.1	%	7.2	6.6	9.36	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2146981)									
ES1901421-044	TP12_0.1	EA055: Moisture Content	----	0.1	%	5.5	5.7	2.24	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2149473)									
ES1901421-054	TP15_0.1	EA055: Moisture Content	----	0.1	%	5.4	4.9	10.9	No Limit
ES1901421-082	TP22_0.1	EA055: Moisture Content	----	0.1	%	5.7	5.8	0.00	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2149474)									
ES1901421-101	TP27_0.5	EA055: Moisture Content	----	0.1	%	11.5	12.6	9.38	0% - 50%
ES1901823-004	Anonymous	EA055: Moisture Content	----	0.1	%	14.7	15.0	2.07	0% - 50%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
ED007: Exchangeable Cations (QC Lot: 2156032)									
ES1901421-007	TP02_0.1 EIL	ED007: Exchangeable Calcium	----	0.1	meq/100g	1.0	0.9	11.2	0% - 50%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	0.4	0.4	0.00	No Limit
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.3	0.2	0.00	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	<0.1	0.00	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	1.8	1.6	11.8	0% - 50%
ES1901534-003	Anonymous	ED007: Exchangeable Calcium	----	0.1	meq/100g	4.7	4.5	4.13	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	10.1	10.2	0.00	0% - 20%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.6	0.6	0.00	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	1.0	1.0	0.00	0% - 50%
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	16.4	16.3	0.774	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2149454)									
ES1901381-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	24	23	0.00	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	23	20	14.2	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	16	14	13.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	25	22	11.4	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	27	25	6.59	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	23200	23400	0.991	0% - 20%
ES1901381-053	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	16	14	19.7	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	6	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	16	14	14.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	22	18	19.4	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	15	11	33.7	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	29300	25400	14.3	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2149456)									
ES1901421-003	TP01_0.5	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	4	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	1640	1740	5.71	0% - 20%
ES1901823-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	9	10	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	21	22	5.05	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005T: Total Metals by ICP-AES (QC Lot: 2149456) - continued									
ES1901823-003	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	18	19	6.73	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	9	9	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	33	36	10.2	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	15400	16800	8.60	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2151182)									
ES1901421-027	TP07_0.5	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	11	<5	75.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	630	580	8.26	0% - 50%
ES1901421-050	TP14_0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	4	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	6	8	24.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	5	<5	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	1830	1960	6.79	0% - 20%
EG005T: Total Metals by ICP-AES (QC Lot: 2151184)									
ES1901421-073	TP20_0.5	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	15	99.3	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	2250	1950	14.4	0% - 20%
ES1901421-100	TP27_0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	7	8	17.2	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	7	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	5900	5440	8.03	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2149455)									
ES1901381-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2149455) - continued									
ES1901381-053	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2149457)									
ES1901421-003	TP01_0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1901823-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2151183)									
ES1901421-027	TP07_0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1901421-050	TP14_0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2151185)									
ES1901421-073	TP20_0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1901421-100	TP27_0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP004: Organic Matter (QC Lot: 2149869)									
ES1901421-009	TP02_0.5 EIL	EP004: Organic Matter	----	0.5	%	<0.5	<0.5	0.00	No Limit
		EP004: Total Organic Carbon	----	0.5	%	<0.5	<0.5	0.00	No Limit
ES1902083-002	Anonymous	EP004: Organic Matter	----	0.5	%	1.2	1.1	0.00	No Limit
		EP004: Total Organic Carbon	----	0.5	%	0.7	0.6	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2144259)									
ES1901421-001	TP01_0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1901421-082	TP22_0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144258)									
ES1901421-001	TP01_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144258) - continued									
ES1901421-001	TP01_0.1	EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1901421-082	TP22_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144261)									
ES1901421-003	TP01_0.5	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144261) - continued									
ES1901421-003	TP01_0.5	EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1901421-042	TP11_0.5	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144262)									
ES1901421-077	TP21_0.1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2144262) - continued									
ES1901421-077	TP21_0.1	EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2144258)									
ES1901421-001	TP01_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1901421-082	TP22_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2144258) - continued									
ES1901421-082	TP22_0.1	EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2144261)									
ES1901421-003	TP01_0.5	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1901421-042	TP11_0.5	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2144261) - continued									
ES1901421-042	TP11_0.5	EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2144262)									
ES1901421-077	TP21_0.1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2144257)									
ES1901421-001	TP01_0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
ES1901421-082	TP22_0.1	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2144257) - continued									
ES1901421-082	TP22_0.1	EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2144257)									
ES1901421-001	TP01_0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1901421-082	TP22_0.1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2144257) - continued									
ES1901421-082	TP22_0.1	EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2144256)									
ES1901421-001	TP01_0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1901421-082	TP22_0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2145560)									
ES1901421-001	TP01_0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1901421-082	TP22_0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2145584)									
ES1901615-017	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1901776-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2144256)									
ES1901421-001	TP01_0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1901421-082	TP22_0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2145560)									
ES1901421-001	TP01_0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1901421-082	TP22_0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2145584)									
ES1901615-017	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1901776-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080: BTEXN (QC Lot: 2145560)									
ES1901421-001	TP01_0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 2145560) - continued									
ES1901421-001	TP01_0.1	EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1901421-082	TP22_0.1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EP080: BTEXN (QC Lot: 2145584)									
ES1901615-017	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1901776-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 2146130)									
ES1901421-123	RW02	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
ES1901309-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0001	0.00	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020T: Total Metals by ICP-MS (QC Lot: 2146130) - continued									
ES1901309-001	Anonymous	EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.004	0.004	0.00	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.001	0.00	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.018	0.014	26.0	0% - 50%
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.049	0.054	11.2	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2146302)									
EB1901142-002	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
WN1900435-004	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2146809)									
ES1901444-002	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	200	200	0.00	0% - 50%
ES1901444-009	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2146809)									
ES1901444-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	240	240	0.00	0% - 50%
ES1901444-009	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 2146809)									
ES1901444-002	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	6	6	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	7	7	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	55	58	4.32	0% - 20%
		EP080: ortho-Xylene	95-47-6	2	µg/L	28	29	0.00	0% - 50%
		EP080: Naphthalene	91-20-3	5	µg/L	8	7	0.00	No Limit
ES1901444-009	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EA010: Conductivity (1:5) (QCLot: 2150395)								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	1412 µS/cm	100	92	108
EA010: Conductivity (1:5) (QCLot: 2150942)								
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	1412 µS/cm	99.1	92	108
ED007: Exchangeable Cations (QCLot: 2156032)								
ED007: Exchangeable Calcium	----	0.1	meq/100g	<0.1	1 meq/100g	96.0	76	120
ED007: Exchangeable Magnesium	----	0.1	meq/100g	<0.1	1.67 meq/100g	95.2	75	115
ED007: Exchangeable Potassium	----	0.1	meq/100g	<0.1	0.51 meq/100g	96.1	80	120
ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	0.87 meq/100g	87.4	80	120
ED007: Cation Exchange Capacity	----	0.1	meq/100g	<0.1	----	----	----	----
EG005T: Total Metals by ICP-AES (QCLot: 2149454)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	108	86	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	106	83	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	85.1	76	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	101	86	120
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	74.7	70	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	103	80	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	106	87	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	114	80	122
EG005T: Total Metals by ICP-AES (QCLot: 2149456)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	99.6	86	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	98.4	83	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	78.8	76	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	94.9	86	120
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	70.0	70	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	96.6	80	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	97.0	87	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	102	80	122
EG005T: Total Metals by ICP-AES (QCLot: 2151182)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	103	86	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	103	83	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	90.4	76	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	104	86	120
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	74.9	70	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	103	80	114

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2151182) - continued								
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	103	87	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	117	80	122
EG005T: Total Metals by ICP-AES (QCLot: 2151184)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	107	86	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	105	83	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	97.3	76	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	107	86	120
EG005T: Iron	7439-89-6	50	mg/kg	<50	8400 mg/kg	83.0	70	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	105	80	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	108	87	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	114	80	122
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2149455)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	91.9	70	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2149457)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	83.0	70	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2151183)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	79.5	70	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2151185)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	85.0	70	105
EP004: Organic Matter (QCLot: 2149869)								
EP004: Organic Matter	----	0.5	%	<0.5	2.35 %	87.2	82	98
EP004: Total Organic Carbon	----	0.5	%	<0.5	1.363 %	87.3	81	99
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2144259)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	90.0	62	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144258)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.6	69	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	65	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	67	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	68	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.6	65	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	67	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.1	69	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	62	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	88.1	63	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.9	66	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	64	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	66	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144258) - continued								
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	67	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	67	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.0	69	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.2	69	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	56	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	82.0	62	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	87.0	66	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.1	64	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	78.6	54	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144261)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	69	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	65	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	102	67	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	68	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.2	65	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	67	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.6	69	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	62	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	63	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	66	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	64	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	66	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	67	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	67	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	87.3	69	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	69	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	98.6	56	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	62	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	90.6	66	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	102	64	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	96.1	54	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144262)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	102	69	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	104	65	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	99.7	67	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	90.6	68	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	65	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	67	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	102	69	115

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144262) - continued								
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	101	62	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.7	63	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	66	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	64	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	102	66	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	67	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.2	67	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	69	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	69	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	85.1	56	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	92.1	66	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	102	64	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	92.9	54	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144258)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	105	59	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	80.8	62	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	99.4	54	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	82.3	67	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	84.8	70	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	85.6	72	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	107	68	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	80.4	68	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	86.0	69	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	86.4	76	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	95.6	64	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	84.9	70	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.5	69	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.8	66	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	79.5	68	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	86.2	62	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	82.3	68	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	80.1	65	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	65.3	41	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144261)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	93.2	59	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	62	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	92.0	54	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	67	119

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144261) - continued								
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	70	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	91.8	72	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	82.3	68	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	80.2	68	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	69	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	76	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	78.7	64	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	83.3	70	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	78.6	69	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.6	66	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	77.6	68	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	62	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.3	68	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.9	65	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	80.9	41	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144262)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	79.9	59	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.4	62	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	77.5	54	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.9	67	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	95.4	70	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	102	72	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	92.1	68	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.5	68	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	100	69	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	76	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	89.1	64	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	97.2	70	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	96.2	69	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	97.7	66	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	68	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	101	62	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	68	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	65	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	41	123
EP075(SIM)A: Phenolic Compounds (QCLot: 2144257)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	88.9	71	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	93.1	72	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	91.5	71	123

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2144257) - continued								
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	89.6	67	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	65.4	54	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	82.6	68	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	85.5	66	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	88.6	70	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	81.2	70	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	75.0	54	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	77.1	60	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	32.2	10	57
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2144257)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	92.9	77	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	88.4	72	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	81.0	73	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	89.6	72	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	90.9	75	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	78.5	77	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	90.5	73	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	89.8	74	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	86.8	69	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	97.7	75	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	88.0	68	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	100	74	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	84.1	70	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	86.9	61	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	86.0	62	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	93.2	63	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2144256)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	111	75	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	99.4	77	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	99.4	71	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2145560)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	98.2	68	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2145584)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	96.0	68	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2144256)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	109	77	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	102	74	138

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2144256) - continued								
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	92.8	63	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2145560)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	101	68	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2145584)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	102	68	128
EP080: BTEXN (QCLot: 2145560)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	102	62	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	103	67	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	99.8	65	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	102	66	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	99.9	68	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	102	63	119
EP080: BTEXN (QCLot: 2145584)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	100	62	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	102	67	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	100	65	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	99.8	66	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	102	68	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	99.3	63	119

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 2146130)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	106	82	114
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	97.4	84	112
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	106	86	116
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	110	83	118
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	99.2	85	115
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	93.8	84	116
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	101	79	117
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2146302)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	91.6	77	111
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2145596)								
EP066: Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	89.0	62	107
EP068A: Organochlorine Pesticides (OC) (QCLot: 2145594)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2145594) - continued								
EP068: alpha-BHC	319-84-6	0.5	µg/L	<0.5	5 µg/L	84.2	65	107
EP068: Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	5 µg/L	77.8	58	111
EP068: beta-BHC	319-85-7	0.5	µg/L	<0.5	5 µg/L	104	69	117
EP068: gamma-BHC	58-89-9	0.5	µg/L	<0.5	5 µg/L	85.0	70	112
EP068: delta-BHC	319-86-8	0.5	µg/L	<0.5	5 µg/L	100	69	110
EP068: Heptachlor	76-44-8	0.5	µg/L	<0.5	5 µg/L	95.6	65	108
EP068: Aldrin	309-00-2	0.5	µg/L	<0.5	5 µg/L	84.9	66	109
EP068: Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	82.4	67	107
EP068: trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	5 µg/L	85.3	64	110
EP068: alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	5 µg/L	82.9	67	112
EP068: cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	5 µg/L	86.7	63	111
EP068: Dieldrin	60-57-1	0.5	µg/L	<0.5	5 µg/L	89.9	65	113
EP068: 4.4`-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	93.3	66	112
EP068: Endrin	72-20-8	0.5	µg/L	<0.5	5 µg/L	102	65	113
EP068: beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	5 µg/L	100	67	114
EP068: 4.4`-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	94.3	72	122
EP068: Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	5 µg/L	91.4	67	109
EP068: Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	5 µg/L	95.1	65	112
EP068: 4.4`-DDT	50-29-3	2	µg/L	<2.0	5 µg/L	97.4	65	112
EP068: Endrin ketone	53494-70-5	0.5	µg/L	<0.5	5 µg/L	103	64	110
EP068: Methoxychlor	72-43-5	2	µg/L	<2.0	5 µg/L	99.8	61	114
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2145594)								
EP068: Dichlorvos	62-73-7	0.5	µg/L	<0.5	5 µg/L	85.8	66	114
EP068: Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	5 µg/L	92.8	64	113
EP068: Monocrotophos	6923-22-4	2	µg/L	<2.0	5 µg/L	26.1	20	48
EP068: Dimethoate	60-51-5	0.5	µg/L	<0.5	5 µg/L	84.4	70	110
EP068: Diazinon	333-41-5	0.5	µg/L	<0.5	5 µg/L	86.7	71	110
EP068: Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	5 µg/L	82.1	77	119
EP068: Parathion-methyl	298-00-0	2	µg/L	<2.0	5 µg/L	91.7	70	124
EP068: Malathion	121-75-5	0.5	µg/L	<0.5	5 µg/L	102	68	116
EP068: Fenthion	55-38-9	0.5	µg/L	<0.5	5 µg/L	93.3	69	112
EP068: Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	5 µg/L	87.4	75	119
EP068: Parathion	56-38-2	2	µg/L	<2.0	5 µg/L	100	67	121
EP068: Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	5 µg/L	97.0	69	121
EP068: Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	5 µg/L	106	72	110
EP068: Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	5 µg/L	96.0	68	112
EP068: Fenamiphos	22224-92-6	0.5	µg/L	<0.5	5 µg/L	108	64	116
EP068: Prothiofos	34643-46-4	0.5	µg/L	<0.5	5 µg/L	92.1	68	114
EP068: Ethion	563-12-2	0.5	µg/L	<0.5	5 µg/L	98.9	74	120

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2145594) - continued								
EP068: Carbophenothion	786-19-6	0.5	µg/L	<0.5	5 µg/L	93.6	66	114
EP068: Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	5 µg/L	92.7	52	128
EP075(SIM)A: Phenolic Compounds (QCLot: 2145595)								
EP075(SIM): Phenol	108-95-2	1	µg/L	<1.0	5 µg/L	35.3	25	62
EP075(SIM): 2-Chlorophenol	95-57-8	1	µg/L	<1.0	5 µg/L	71.3	52	90
EP075(SIM): 2-Methylphenol	95-48-7	1	µg/L	<1.0	5 µg/L	67.5	51	91
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	2	µg/L	<2.0	10 µg/L	62.9	44	88
EP075(SIM): 2-Nitrophenol	88-75-5	1	µg/L	<1.0	5 µg/L	67.3	48	100
EP075(SIM): 2.4-Dimethylphenol	105-67-9	1	µg/L	<1.0	5 µg/L	78.3	49	99
EP075(SIM): 2.4-Dichlorophenol	120-83-2	1	µg/L	<1.0	5 µg/L	69.9	53	105
EP075(SIM): 2.6-Dichlorophenol	87-65-0	1	µg/L	<1.0	5 µg/L	71.6	57	105
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	1	µg/L	<1.0	5 µg/L	68.6	53	99
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	1	µg/L	<1.0	5 µg/L	70.8	50	106
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	1	µg/L	<1.0	5 µg/L	75.8	51	105
EP075(SIM): Pentachlorophenol	87-86-5	2	µg/L	<2.0	10 µg/L	39.1	10	95
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2145595)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	68.8	50	94
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	95.4	64	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	85.0	62	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	89.7	64	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	93.5	63	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	81.4	64	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	86.0	64	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	94.3	63	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	91.4	64	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	95.7	63	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	95.3	62	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	86.4	63	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	86.1	63	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	84.3	60	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	89.4	61	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	83.8	59	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2145593)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	2000 µg/L	95.9	76	116
EP071: C15 - C28 Fraction	----	100	µg/L	<100	3000 µg/L	100	83	109
EP071: C29 - C36 Fraction	----	50	µg/L	<50	2000 µg/L	95.9	75	113
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2146809)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2146809) - continued								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	99.3	75	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2145593)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	2500 µg/L	94.9	76	114
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	3500 µg/L	99.9	81	111
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	1500 µg/L	99.4	77	119
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2146809)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	97.5	75	127
EP080: BTEXN (QCLot: 2146809)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	106	70	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	103	69	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	106	70	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	101	69	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	101	72	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	91.9	70	120

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005T: Total Metals by ICP-AES (QCLot: 2149454)							
ES1901381-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	94.9	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	98.7	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	89.1	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	99.8	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	95.4	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	93.2	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	102	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2149456)							
ES1901421-003	TP01_0.5	EG005T: Arsenic	7440-38-2	50 mg/kg	93.6	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.7	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	91.6	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	99.1	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.1	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.3	70	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 2149456) - continued							
ES1901421-003	TP01_0.5	EG005T: Zinc	7440-66-6	250 mg/kg	105	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2151182)							
ES1901421-027	TP07_0.5	EG005T: Arsenic	7440-38-2	50 mg/kg	96.7	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	101	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	102	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	100	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	98.4	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	102	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	108	70	130
EG005T: Total Metals by ICP-AES (QCLot: 2151184)							
ES1901421-073	TP20_0.5	EG005T: Arsenic	7440-38-2	50 mg/kg	98.9	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	105	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	112	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	105	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	106	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	107	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	112	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2149455)							
ES1901381-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	88.9	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2149457)							
ES1901421-003	TP01_0.5	EG035T: Mercury	7439-97-6	5 mg/kg	89.0	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2151183)							
ES1901421-027	TP07_0.5	EG035T: Mercury	7439-97-6	5 mg/kg	95.4	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2151185)							
ES1901421-073	TP20_0.5	EG035T: Mercury	7439-97-6	5 mg/kg	96.4	70	130
EP004: Organic Matter (QCLot: 2149869)							
ES1901421-009	TP02_0.5 EIL	EP004: Organic Matter	----	0.63 %	84.6	70	130
		EP004: Total Organic Carbon	----	0.37 %	82.0	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2144259)							
ES1901421-001	TP01_0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	84.0	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144258)							
ES1901421-001	TP01_0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	93.0	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	85.3	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	107	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	93.6	70	130
		EP068: Endrin	72-20-8	2 mg/kg	91.0	70	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144258) - continued							
ES1901421-001	TP01_0.1	EP068: 4.4`-DDT	50-29-3	2 mg/kg	78.2	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144261)							
ES1901421-003	TP01_0.5	EP068: gamma-BHC	58-89-9	0.5 mg/kg	83.4	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	87.6	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	111	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	79.4	70	130
		EP068: Endrin	72-20-8	2 mg/kg	96.9	70	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	91.4	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2144262)							
ES1901421-077	TP21_0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	114	70	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	94.4	70	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	106	70	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	76.0	70	130
		EP068: Endrin	72-20-8	2 mg/kg	109	70	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	81.2	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144258)							
ES1901421-001	TP01_0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	77.9	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	73.8	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	77.2	70	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	96.7	70	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	94.7	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144261)							
ES1901421-003	TP01_0.5	EP068: Diazinon	333-41-5	0.5 mg/kg	102	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	74.8	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	88.6	70	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	75.1	70	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	75.2	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2144262)							
ES1901421-077	TP21_0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	83.7	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	93.8	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	94.3	70	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	91.7	70	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	76.1	70	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2144257)							
ES1901421-001	TP01_0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	99.4	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	107	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	85.4	60	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2144257) - continued							
ES1901421-001	TP01_0.1	EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	102	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	36.0	20	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2144257)							
ES1901421-001	TP01_0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	110	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	123	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2144256)							
ES1901421-001	TP01_0.1	EP071: C10 - C14 Fraction	----	523 mg/kg	97.8	73	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	112	53	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	113	52	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2145560)							
ES1901421-001	TP01_0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	110	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2145584)							
ES1901615-017	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	96.8	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2144256)							
ES1901421-001	TP01_0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	93.4	73	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	121	53	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	106	52	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2145560)							
ES1901421-001	TP01_0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	111	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2145584)							
ES1901615-017	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	98.0	70	130
EP080: BTEXN (QCLot: 2145560)							
ES1901421-001	TP01_0.1	EP080: Benzene	71-43-2	2.5 mg/kg	102	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	104	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	105	70	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	105	70	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	105	70	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	101	70	130
EP080: BTEXN (QCLot: 2145584)							
ES1901615-017	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	90.2	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	91.3	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	92.6	70	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	91.4	70	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	93.8	70	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080: BTEXN (QCLot: 2145584) - continued							
ES1901615-017	Anonymous	EP080: Naphthalene	91-20-3	2.5 mg/kg	93.4	70	130

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 2146130)							
ES1901309-002	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	103	70	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	99.3	70	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	102	70	130
		EG020A-T: Copper	7440-50-8	1 mg/L	113	70	130
		EG020A-T: Lead	7439-92-1	1 mg/L	104	70	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	108	70	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	99.5	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2146302)							
EB1901142-003	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	97.3	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2146809)							
ES1901444-002	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	129	70	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2146809)							
ES1901444-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	114	70	130
EP080: BTEXN (QCLot: 2146809)							
ES1901444-002	Anonymous	EP080: Benzene	71-43-2	25 µg/L	108	70	130
		EP080: Toluene	108-88-3	25 µg/L	114	70	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	115	70	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	122	70	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	116	70	130
		EP080: Naphthalene	91-20-3	25 µg/L	113	70	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES1901421**	Page	: 1 of 18
Client	: **EP Risk Management**	Laboratory	: Environmental Division Sydney
Contact	: MR NATHAN MCGUIRE (EPRISK)	Telephone	: +61 2 8784 8555
Project	: Goulburn Contamination Assessment	Date Samples Received	: 17-Jan-2019
Site	: ----	Issue Date	: 29-Jan-2019
Sampler	: Nathan McGuire	No. of samples received	: 129
Order number	: EP1063	No. of samples analysed	: 61

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)S: Phenolic Compound Surrogates	ES1901421-001	TP01_0.1	**2.4.6-Tribromophenol**	118-79-6	39.7 %	40-138 %	**Recovery less than lower data quality objective**

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method / Container / Client Sample ID(s)		Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved							
TP02_0.1 EIL,	TP02_0.5 EIL	23-Jan-2019	22-Jan-2019	1	----	----	----
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved							
TP02_0.1 EIL,	TP02_0.5 EIL	23-Jan-2019	22-Jan-2019	1	----	----	----
EA010: Conductivity (1:5)							
Soil Glass Jar - Unpreserved							
TP02_0.1 EIL,	TP02_0.5 EIL	23-Jan-2019	22-Jan-2019	1	----	----	----

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	18	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	0	5	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	0	2	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	11	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	18	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	0	5	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	0	2	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	11	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA001: pH in soil using 0.01M CaCl extract							
Soil Glass Jar - Unpreserved (EA001) TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**23-Jan-2019**	22-Jan-2019	×	**23-Jan-2019**	23-Jan-2019	✓
Soil Glass Jar - Unpreserved (EA001) TP20_1.0 EIL	**16-Jan-2019**	**23-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	23-Jan-2019	✓
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved (EA002) TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**23-Jan-2019**	22-Jan-2019	×	**23-Jan-2019**	23-Jan-2019	✓
Soil Glass Jar - Unpreserved (EA002) TP20_1.0 EIL	**16-Jan-2019**	**23-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	23-Jan-2019	✓
EA010: Conductivity (1:5)							
Soil Glass Jar - Unpreserved (EA010) TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**23-Jan-2019**	22-Jan-2019	×	**23-Jan-2019**	20-Feb-2019	✓
Soil Glass Jar - Unpreserved (EA010) TP20_1.0 EIL	**16-Jan-2019**	**23-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	20-Feb-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
TP01_0.1, TP01_0.5, TP02_0.1, TP02_0.1 EIL, TP02_0.5 EIL, TP03_0.1, TP04_0.1, TP04_0.5, TP05_0.1, TP06_0.1, TP07_0.1, TP07_0.5, TP08_0.1, TP09_0.1, TP09_0.5, TP10_0.1, TP11_0.1, TP11_0.5, TP12_0.1, TP13_0.1, TP13_0.5, TP14_0.1	**15-Jan-2019**	**----**	----	----	**21-Jan-2019**	29-Jan-2019	✓
Soil Glass Jar - Unpreserved (EA055)							
TP14_0.5, TP15_0.1, TP16_0.1, TP16_0.5, TP17_0.1, TP18_0.1, TP18_0.5, TP19_0.1, QC01, QC03, QC05	**15-Jan-2019**	**----**	----	----	**22-Jan-2019**	29-Jan-2019	✓
Soil Glass Jar - Unpreserved (EA055)							
TP20_0.1, TP20_0.5, TP20_1.0 EIL, TP21_0.1, TP22_0.1, TP22_0.5, TP23_0.1, TP23_0.5, TP24_0.1, TP25_0.1, TP25_0.5, TP26_0.1, TP27_0.1, TP27_0.5, TP28_0.1, TP29_0.1, TP29_0.5, TP30_0.1	**16-Jan-2019**	**----**	----	----	**22-Jan-2019**	30-Jan-2019	✓
EA150: Soil Classification based on Particle Size							
Snap Lock Bag (EA150H)							
TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**----**	----	----	**29-Jan-2019**	14-Jul-2019	✓
Snap Lock Bag (EA150H)							
TP20_1.0 EIL	**16-Jan-2019**	**----**	----	----	**29-Jan-2019**	15-Jul-2019	✓
EA152: Soil Particle Density							
Snap Lock Bag (EA152)							
TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**----**	----	----	**29-Jan-2019**	14-Jul-2019	✓
Snap Lock Bag (EA152)							
TP20_1.0 EIL	**16-Jan-2019**	**----**	----	----	**29-Jan-2019**	15-Jul-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Snap Lock Bag: Separate bag received (EA200)								
TP01_0.1 w/w %,	TP19_0.1 w/w %	**15-Jan-2019**	**----**	----	----	**22-Jan-2019**	14-Jul-2019	✓
Snap Lock Bag: Separate bag received (EA200)								
TP21_0.1 w/w %, TP30_0.1 W/W%	TP25_0.1 w/w %,	**16-Jan-2019**	**----**	----	----	**22-Jan-2019**	15-Jul-2019	✓
EA200N: Asbestos Quantification (non-NATA)								
Snap Lock Bag: Separate bag received (EA200N)								
TP01_0.1 w/w %,	TP19_0.1 w/w %	**15-Jan-2019**	**----**	----	----	**22-Jan-2019**	14-Jul-2019	✓
Snap Lock Bag: Separate bag received (EA200N)								
TP21_0.1 w/w %, TP30_0.1 W/W%	TP25_0.1 w/w %,	**16-Jan-2019**	**----**	----	----	**22-Jan-2019**	15-Jul-2019	✓
ED007: Exchangeable Cations								
Soil Glass Jar - Unpreserved (ED007)								
TP02_0.1 EIL,	TP02_0.5 EIL	**15-Jan-2019**	**25-Jan-2019**	12-Feb-2019	✓	**25-Jan-2019**	12-Feb-2019	✓
Soil Glass Jar - Unpreserved (ED007)								
TP20_1.0 EIL		**16-Jan-2019**	**25-Jan-2019**	13-Feb-2019	✓	**25-Jan-2019**	13-Feb-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
TP01_0.1,	TP01_0.5,	**15-Jan-2019**	**22-Jan-2019**	14-Jul-2019	✓	**23-Jan-2019**	14-Jul-2019	✓
TP02_0.1,	TP02_0.1 EIL,							
TP02_0.5 EIL,	TP03_0.1,							
TP04_0.1,	TP04_0.5,							
TP05_0.1,	TP06_0.1,							
TP07_0.1								
Soil Glass Jar - Unpreserved (EG005T)								
TP07_0.5,	TP08_0.1,	**15-Jan-2019**	**23-Jan-2019**	14-Jul-2019	✓	**24-Jan-2019**	14-Jul-2019	✓
TP09_0.1,	TP09_0.5,							
TP10_0.1,	TP11_0.1,							
TP11_0.5,	TP12_0.1,							
TP13_0.1,	TP13_0.5,							
TP14_0.1,	TP14_0.5,							
TP15_0.1,	TP16_0.1,							
TP16_0.5,	TP17_0.1,							
TP18_0.1,	TP18_0.5,							
TP19_0.1,	QC01,							
QC03,	QC05							
Soil Glass Jar - Unpreserved (EG005T)								
TP20_0.1,	TP20_0.5,	**16-Jan-2019**	**23-Jan-2019**	15-Jul-2019	✓	**24-Jan-2019**	15-Jul-2019	✓
TP20_1.0 EIL,	TP21_0.1,							
TP22_0.1,	TP22_0.5,							
TP23_0.1,	TP23_0.5,							
TP24_0.1,	TP25_0.1,							
TP25_0.5,	TP26_0.1,							
TP27_0.1,	TP27_0.5,							
TP28_0.1,	TP29_0.1,							
TP29_0.5,	TP30_0.1							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
TP01_0.1, TP01_0.5, TP02_0.1, TP03_0.1, TP04_0.1, TP04_0.5, TP05_0.1, TP06_0.1, TP07_0.1	**15-Jan-2019**	**22-Jan-2019**	12-Feb-2019	✓	**23-Jan-2019**	12-Feb-2019	✓
Soil Glass Jar - Unpreserved (EG035T)							
TP07_0.5, TP08_0.1, TP09_0.1, TP09_0.5, TP10_0.1, TP11_0.1, TP11_0.5, TP12_0.1, TP13_0.1, TP13_0.5, TP14_0.1, TP14_0.5, TP15_0.1, TP16_0.1, TP16_0.5, TP17_0.1, TP18_0.1, TP18_0.5, TP19_0.1, QC01, QC03, QC05	**15-Jan-2019**	**23-Jan-2019**	12-Feb-2019	✓	**24-Jan-2019**	12-Feb-2019	✓
Soil Glass Jar - Unpreserved (EG035T)							
TP20_0.1, TP20_0.5, TP21_0.1, TP22_0.1, TP22_0.5, TP23_0.1, TP23_0.5, TP24_0.1, TP25_0.1, TP25_0.5, TP26_0.1, TP27_0.1, TP27_0.5, TP28_0.1, TP29_0.1, TP29_0.5, TP30_0.1	**16-Jan-2019**	**23-Jan-2019**	13-Feb-2019	✓	**24-Jan-2019**	13-Feb-2019	✓
EP004: Organic Matter							
Soil Glass Jar - Unpreserved (EP004)							
TP02_0.1 EIL, TP02_0.5 EIL	**15-Jan-2019**	**24-Jan-2019**	12-Feb-2019	✓	**24-Jan-2019**	12-Feb-2019	✓
Soil Glass Jar - Unpreserved (EP004)							
TP20_1.0 EIL	**16-Jan-2019**	**24-Jan-2019**	13-Feb-2019	✓	**24-Jan-2019**	13-Feb-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
TP01_0.1, TP04_0.1, TP07_0.1, TP09_0.1, TP11_0.1, TP13_0.1, TP14_0.1, TP16_0.1, TP18_0.1, QC01, QC03, QC05	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Soil Glass Jar - Unpreserved (EP066)							
TP20_0.1, TP22_0.1, TP23_0.1, TP25_0.1, TP27_0.1, TP29_0.1	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
TP01_0.1, TP01_0.5, TP02_0.1, TP03_0.1, TP04_0.1, TP04_0.5, TP05_0.1, TP06_0.1, TP07_0.1, TP07_0.5, TP08_0.1, TP09_0.1, TP09_0.5, TP10_0.1, TP11_0.1, TP11_0.5, TP12_0.1, TP13_0.1, TP13_0.5, TP14_0.1, TP14_0.5, TP15_0.1, TP16_0.1, TP16_0.5, TP17_0.1, TP18_0.1, TP18_0.5, TP19_0.1, QC01, QC03, QC05	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Soil Glass Jar - Unpreserved (EP068)							
TP20_0.1, TP20_0.5, TP21_0.1, TP22_0.1, TP22_0.5, TP23_0.1, TP23_0.5, TP24_0.1, TP25_0.1, TP25_0.5, TP26_0.1, TP27_0.1, TP27_0.5, TP28_0.1, TP29_0.1, TP29_0.5, TP30_0.1	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
TP01_0.1, TP01_0.5, TP02_0.1, TP03_0.1, TP04_0.1, TP04_0.5, TP05_0.1, TP06_0.1, TP07_0.1, TP07_0.5, TP08_0.1, TP09_0.1, TP09_0.5, TP10_0.1, TP11_0.1, TP11_0.5, TP12_0.1, TP13_0.1, TP13_0.5, TP14_0.1, TP14_0.5, TP15_0.1, TP16_0.1, TP16_0.5, TP17_0.1, TP18_0.1, TP18_0.5, TP19_0.1, QC01, QC03, QC05	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Soil Glass Jar - Unpreserved (EP068)							
TP20_0.1, TP20_0.5, TP21_0.1, TP22_0.1, TP22_0.5, TP23_0.1, TP23_0.5, TP24_0.1, TP25_0.1, TP25_0.5, TP26_0.1, TP27_0.1, TP27_0.5, TP28_0.1, TP29_0.1, TP29_0.5, TP30_0.1	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP01_0.1, TP04_0.1, TP07_0.1, TP09_0.1, TP11_0.1, TP13_0.1, TP14_0.1, TP16_0.1, TP18_0.1, QC01, QC03, QC05	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	02-Mar-2019	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TP20_0.1, TP22_0.1, TP23_0.1, TP25_0.1, TP27_0.1, TP29_0.1	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	02-Mar-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TP01_0.1,	TP04_0.1,	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	02-Mar-2019	✓
TP07_0.1,	TP09_0.1,							
TP11_0.1,	TP13_0.1,							
TP14_0.1,	TP16_0.1,							
TP18_0.1,	QC01,							
QC03,	QC05							
Soil Glass Jar - Unpreserved (EP075(SIM))								
TP20_0.1,	TP22_0.1,	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	02-Mar-2019	✓
TP23_0.1,	TP25_0.1,							
TP27_0.1,	TP29_0.1							
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
TRIP BLANK,	TRIP SPIKE,	**09-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**22-Jan-2019**	23-Jan-2019	✓
TSC								
Soil Glass Jar - Unpreserved (EP080)								
TP01_0.1,	TP04_0.1,	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
TP07_0.1,	TP09_0.1,							
TP11_0.1,	TP13_0.1,							
TP14_0.1,	TP16_0.1,							
TP18_0.1,	QC01,							
QC03,	QC05							
Soil Glass Jar - Unpreserved (EP080)								
TP20_0.1,	TP22_0.1,	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓
TP23_0.1,	TP25_0.1,							
TP27_0.1,	TP29_0.1							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080)								
TRIP BLANK,	TRIP SPIKE,	**09-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**22-Jan-2019**	23-Jan-2019	✓
TSC								
Soil Glass Jar - Unpreserved (EP080)								
TP01_0.1,	TP04_0.1,	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
TP07_0.1,	TP09_0.1,							
TP11_0.1,	TP13_0.1,							
TP14_0.1,	TP16_0.1,							
TP18_0.1,	QC01,							
QC03,	QC05							
Soil Glass Jar - Unpreserved (EP080)								
TP20_0.1,	TP22_0.1,	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓
TP23_0.1,	TP25_0.1,							
TP27_0.1,	TP29_0.1							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
TRIP BLANK, TRIP SPIKE, TSC	**09-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**22-Jan-2019**	23-Jan-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
TP01_0.1, TP04_0.1, TP07_0.1, TP09_0.1, TP11_0.1, TP13_0.1, TP14_0.1, TP16_0.1, TP18_0.1, QC01, QC03, QC05	**15-Jan-2019**	**21-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
TP20_0.1, TP22_0.1, TP23_0.1, TP25_0.1, TP27_0.1, TP29_0.1	**16-Jan-2019**	**21-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
RW01	**15-Jan-2019**	**21-Jan-2019**	14-Jul-2019	✓	**21-Jan-2019**	14-Jul-2019	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
RW02	**16-Jan-2019**	**21-Jan-2019**	15-Jul-2019	✓	**21-Jan-2019**	15-Jul-2019	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T)							
RW01	**15-Jan-2019**	**----**	----	----	**21-Jan-2019**	12-Feb-2019	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T)							
RW02	**16-Jan-2019**	**----**	----	----	**21-Jan-2019**	13-Feb-2019	✓
EP066: Polychlorinated Biphenyls (PCB)							
Amber Glass Bottle - Unpreserved (EP066)							
RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP066)							
RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP068A: Organochlorine Pesticides (OC)							
Amber Glass Bottle - Unpreserved (EP068)							
RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP068)							
RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Amber Glass Bottle - Unpreserved (EP068) RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP068) RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved (EP075(SIM)) RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP075(SIM)) RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP075(SIM)) RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP071) RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW01	**15-Jan-2019**	**22-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW02	**16-Jan-2019**	**22-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) RW01	**15-Jan-2019**	**21-Jan-2019**	22-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber Glass Bottle - Unpreserved (EP071) RW02	**16-Jan-2019**	**21-Jan-2019**	23-Jan-2019	✓	**23-Jan-2019**	02-Mar-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW01	**15-Jan-2019**	**22-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW02	**16-Jan-2019**	**22-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) RW01	**15-Jan-2019**	**22-Jan-2019**	29-Jan-2019	✓	**22-Jan-2019**	29-Jan-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) RW02	**16-Jan-2019**	**22-Jan-2019**	30-Jan-2019	✓	**22-Jan-2019**	30-Jan-2019	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Electrical Conductivity (1:5)	EA010	3	26	**11.54**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	7	66	**10.61**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	2	8	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	5	48	**10.42**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	4	36	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
pH in soil using a 0.01M CaCl2 extract	EA001	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	8	77	**10.39**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	8	80	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Electrical Conductivity (1:5)	EA010	2	26	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	48	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	77	**5.19**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	80	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Electrical Conductivity (1:5)	EA010	2	26	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations	ED007	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Organic Matter	EP004	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	48	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	77	**5.19**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	80	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS) - Continued							
Organic Matter	EP004	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	48	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	77	**5.19**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	80	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	18	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	5	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	2	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	11	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	18	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	0	5	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	0	2	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS) - Continued							
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	11	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001	SOIL	In house: Referenced to Rayment and Lyons (2011) 4B3 (mod.) or 4B4 (mod.) 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM (2013) Schedule B(3)
pH (1:5)	EA002	SOIL	In house: Referenced to Rayment and Lyons 4A1 and APHA 4500H+. pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM (2013) Schedule B(3)
Electrical Conductivity (1:5)	EA010	SOIL	In house: Referenced to Rayment and Lyons 3A1 and APHA 2510. Conductivity is determined on soil samples using a 1:5 soil/water leach. This method is compliant with NEPM (2013) Schedule B(3)
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Particle Size Analysis by Hydrometer	EA150H	SOIL	Particle Size Analysis by Hydrometer according to AS1289.3.6.3 - 2003
Soil Particle Density	EA152	SOIL	Soil Particle Density by AS 1289.3.5.1-2006 : Methods of testing soils for engineering purposes - Soil classification tests - Determination of the soil particle density of a soil - Standard method
Asbestos Identification in Soils	EA200	SOIL	AS 4964 - 2004 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Asbestos Classification and Quantitation per NEPM 2013	* EA200N	SOIL	Asbestos Classification and Quantitation per NEPM 2013 with Confirmation of Identification by AS 4964 - 2004 Gravimetric determination of Asbestos Containing Material, Fibrous Asbestos, Asbestos Fines and sample weight and calculation of percentage concentrations per NEPM protocols. Asbestos (Fines and Fibrous FA+AF) is reported as the equivalent weight in the sample received after accounting for sub-sampling (where applicable for the <7mm and/or <2mm fractions).
Exchangeable Cations	ED007	SOIL	In house: Referenced to Rayment & Lyons (2011) Method 15A1. Cations are exchanged from the sample by contact with Ammonium Chloride. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil. This method is compliant with NEPM (2013) Schedule B(3) (Method 301)
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Organic Matter	EP004	SOIL	In house: Referenced to AS1289.4.1.1 - 1997. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM (2013) Schedule B(3).
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 504)

Analytical Methods	Method	Matrix	Method Descriptions
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 504,505)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270D. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260B. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM amended 2013.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	WATER	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Pesticides by GCMS	EP068	WATER	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
pH in soil using a 0.01M CaCl2 extract	EA001-PR	SOIL	In house: Referenced to Rayment and Higginson 4B1, 10 g of soil is mixed with 50 mL of 0.01M CaCl2 and tumbled end over end for 1 hour. pH is measured from the continuous suspension. This method is compliant with NEPM (2013) Schedule B(3) (Method 103)

Preparation Methods	Method	Matrix	Method Descriptions
Exchangeable Cations Preparation Method	ED007PR	SOIL	In house: Referenced to Rayment & Higginson (1992) method 15A1. A 1M NH4Cl extraction by end over end tumbling at a ratio of 1:20. There is no pretreatment for soluble salts. Extracts can be run by ICP for cations.
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (2013) Schedule B(3) (Method 202)
Organic Matter	EP004-PR	SOIL	In house: Referenced to AS1289.4.1.1 - 1997. Dichromate oxidation method after Walkley and Black. This method is compliant with NEPM (2013) Schedule B(3) (Method 105)
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (2013) Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510B 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (2013) Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

CHAIN OF CUSTODY RECORD

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Brisbane Laboratory
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Perth Laboratory
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08 9251 9600 EnviroSampleWA@eurofins.com

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

Company	EP Risk	Project №	EP1063
Address	3/19 Bolton St, Newcastle	Project Name	Goulburn Contamination Assessment
Contact Name	Nathan McGuire	Project Manager	Nathan McGuire
Phone №	0422 937 410	EDD Format (Excel, EQuIS etc)	Esdat
Special Directions		Sampler(s)	Nathan McGuire
Purchase Order	EP1063	Handed over by	" "
Quote ID №		Email for Invoice	accounts@eprisk.com.au
		Email for Results	nathan.mcguire@eprisk.com.au

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.

Required Turnaround Time
Default will be 5 days if not ticked.

*Surcharge will apply

- [ ] Overnight (reporting by 9am)*
- [ ] Same day*
- [ ] 1 day*
- [ ] 2 days*
- [ ] 3 days*
- [x] 5 days (Standard)*
- [ ] Other

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	TRH, BTEX, PAH, OCP, OPP, PCB, Phenols, 8 metals. HOLD	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL Vial	500mL PFAS PET	Jar (Glass or HDPE)
1	QC02	15/1/19	S	X							X
2	QC04	15/1/19		X							X
3	QC06	15/1/19		X							X
4	QC08	16/1/19		X							X
5	QC10	16/1/19		X							X
6	QC12	16/1/19		X							X
	Total Counts										

Sample Comments / Dangerous Goods Hazard Warning

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal

Eurofins | mgt Laboratory Use Only		Name		Signature		Date	Time		
	Received By	Zoreen	SYD | BNE | MEL | PER | ADL | (NTL) | DRW	Signature		Date 17/1/19	Time 9-30 AM	Temperature	
	Received By	MARK B	SYD | BNE (MEL) | PER | ADL | NTL | DRW	Signature		Date 18/1/19	Time 8:30AM	Report №	636604

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

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

Version No: 4.4 Modified by: Sandra Approved by: Dr. R Symons Approved on: 10 December 2018

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ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**EP Risk Management (NSW)**
Contact name:	Nathan McGuire
Project name:	GOULBURN CONTAMINATION ASSESSMENT
Project ID:	EP1063
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Jan 18, 2019 8:30 AM
Eurofins | mgt reference:	**636604**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Nathan McGuire - nathan.mcguire@eprisk.com.au.

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NATA # 1261
Site # 23736

Company Name: EP Risk Management (NSW)
Address: 109/283 Alfred Street
North Sydney
NSW 2060

Project Name: GOULBURN CONTAMINATION ASSESSMENT
Project ID: EP1063

Order No.: EP1063
Report #: 636604
Phone: 02 99225021
Fax:

Received: Jan 18, 2019 8:30 AM
Due: Jan 25, 2019
Priority: 5 Day
Contact Name: Nathan McGuire

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	QC02	Jan 15, 2019		Soil	M19-Ja14593		X	X	X	X	X	X	X	X	X
2	QC04	Jan 15, 2019		Soil	M19-Ja14594		X	X	X	X	X	X	X	X	X
3	QC06	Jan 15, 2019		Soil	M19-Ja14595		X	X	X	X	X	X	X	X	X
4	QC08	Jan 16, 2019		Soil	M19-Ja14596	X									
5	QC10	Jan 16, 2019		Soil	M19-Ja14597	X									
6	QC12	Jan 16, 2019		Soil	M19-Ja14598	X									
Test Counts						3	3	3	3	3	3	3	3	3	3

EP Risk Management (NSW)
109/283 Alfred Street
North Sydney
NSW 2060

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nathan McGuire**

Report **636604-S**
Project name GOULBURN CONTAMINATION ASSESSMENT
Project ID EP1063
Received Date Jan 18, 2019

Client Sample ID			**QC02**	**QC04**	**QC06**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M19-Ja14593**	**M19-Ja14594**	**M19-Ja14595**
Date Sampled			**Jan 15, 2019**	**Jan 15, 2019**	**Jan 15, 2019**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50
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	%	52	79	68
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
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

Client Sample ID			QC02	QC04	QC06
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M19-Ja14593**	**M19-Ja14594**	**M19-Ja14595**
Date Sampled			**Jan 15, 2019**	**Jan 15, 2019**	**Jan 15, 2019**
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
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	%	78	63	91
p-Terphenyl-d14 (surr.)	1	%	85	108	74
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	69	112	80
Tetrachloro-m-xylene (surr.)	1	%	99	107	75
Organophosphorus Pesticides					
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2

Client Sample ID			QC02	QC04	QC06
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			M19-Ja14593	M19-Ja14594	M19-Ja14595
Date Sampled			Jan 15, 2019	Jan 15, 2019	Jan 15, 2019
Test/Reference	LOR	Unit			
Organophosphorus Pesticides					
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	71	127	87
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	69	112	80
Tetrachloro-m-xylene (surr.)	1	%	99	107	75
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	1	mg/kg	< 1	< 1	< 1
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1

Client Sample ID			QC02	QC04	QC06
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			M19-Ja14593	M19-Ja14594	M19-Ja14595
Date Sampled			Jan 15, 2019	Jan 15, 2019	Jan 15, 2019
Test/Reference	LOR	Unit			
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-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
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
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
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
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	77	46	30
Heavy Metals					
Arsenic	2	mg/kg	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	< 5
Copper	5	mg/kg	< 5	< 5	< 5
Lead	5	mg/kg	5.6	6.3	8.3
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5
Zinc	5	mg/kg	5.5	6.5	< 5
% Moisture	1	%	9.8	6.0	6.2

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

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
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Melbourne	Jan 24, 2019	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Jan 24, 2019	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Jan 24, 2019	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Jan 24, 2019	14 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Melbourne	Jan 19, 2019	14 Day
- Method: LTM-GEN-7080 Moisture			

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Site # 23736

Company Name: EP Risk Management (NSW)
Address: 109/283 Alfred Street
North Sydney
NSW 2060

Project Name: GOULBURN CONTAMINATION ASSESSMENT
Project ID: EP1063

Order No.: EP1063
Report #: 636604
Phone: 02 99225021
Fax:

Received: Jan 18, 2019 8:30 AM
Due: Jan 25, 2019
Priority: 5 Day
Contact Name: Nathan McGuire

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						HOLD	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217															
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	QC02	Jan 15, 2019		Soil	M19-Ja14593		X	X	X	X	X	X	X	X	X
2	QC04	Jan 15, 2019		Soil	M19-Ja14594		X	X	X	X	X	X	X	X	X
3	QC06	Jan 15, 2019		Soil	M19-Ja14595		X	X	X	X	X	X	X	X	X
4	QC08	Jan 16, 2019		Soil	M19-Ja14596	X									
5	QC10	Jan 16, 2019		Soil	M19-Ja14597	X									
6	QC12	Jan 16, 2019		Soil	M19-Ja14598	X									
Test Counts						3	3	3	3	3	3	3	3	3	3

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, April 2011 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. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.2 2018
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.2 where no positive PFAS results have been reported have been reviewed and no data was affected.

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

QC Data General Comments

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

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Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
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							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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-BHC (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	< 1			1	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	
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							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1	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-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
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	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	117			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	92			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	92			70-130	Pass	
m&p-Xylenes	%	92			70-130	Pass	
Xylenes - Total	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	78			70-130	Pass	
TRH C6-C10	%	99			70-130	Pass	
TRH >C10-C16	%	121			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	110			70-130	Pass	
Acenaphthylene	%	99			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	%	98			70-130	Pass	
Benz(a)anthracene	%	96			70-130	Pass	
Benzo(a)pyrene	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	105			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	130			70-130	Pass	
Dibenz(a.h)anthracene	%	90			70-130	Pass	
Fluoranthene	%	85			70-130	Pass	
Fluorene	%	102			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	80			70-130	Pass	
Naphthalene	%	121			70-130	Pass	
Phenanthrene	%	103			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	92			70-130	Pass	
4.4'-DDD	%	71			70-130	Pass	
4.4'-DDE	%	96			70-130	Pass	
4.4'-DDT	%	90			70-130	Pass	
a-BHC	%	91			70-130	Pass	
Aldrin	%	102			70-130	Pass	
b-BHC	%	76			70-130	Pass	
d-BHC	%	83			70-130	Pass	
Dieldrin	%	117			70-130	Pass	
Endosulfan I	%	92			70-130	Pass	
Endosulfan II	%	102			70-130	Pass	
Endosulfan sulphate	%	97			70-130	Pass	
Endrin	%	73			70-130	Pass	
Endrin aldehyde	%	92			70-130	Pass	
Endrin ketone	%	80			70-130	Pass	
g-BHC (Lindane)	%	106			70-130	Pass	
Heptachlor	%	77			70-130	Pass	
Heptachlor epoxide	%	97			70-130	Pass	
Hexachlorobenzene	%	110			70-130	Pass	
Methoxychlor	%	85			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	112			70-130	Pass	
Dimethoate	%	75			70-130	Pass	
Ethion	%	90			70-130	Pass	
Fenitrothion	%	104			70-130	Pass	
Methyl parathion	%	99			70-130	Pass	
Mevinphos	%	72			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	71			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	96			30-130	Pass	
2.4-Dichlorophenol	%	80			30-130	Pass	
2.4.5-Trichlorophenol	%	69			30-130	Pass	
2.4.6-Trichlorophenol	%	65			30-130	Pass	
2.6-Dichlorophenol	%	87			30-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chloro-3-methylphenol	%	84			30-130	Pass	
Pentachlorophenol	%	37			30-130	Pass	
Tetrachlorophenols - Total	%	77			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	52			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	33			30-130	Pass	
2-Methylphenol (o-Cresol)	%	98			30-130	Pass	
2-Nitrophenol	%	81			30-130	Pass	
2.4-Dimethylphenol	%	92			30-130	Pass	
2.4-Dinitrophenol	%	44			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	103			30-130	Pass	
4-Nitrophenol	%	65			30-130	Pass	
Dinoseb	%	73			30-130	Pass	
Phenol	%	97			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	110			80-120	Pass	
Cadmium	%	107			80-120	Pass	
Chromium	%	114			80-120	Pass	
Copper	%	110			80-120	Pass	
Lead	%	115			80-120	Pass	
Mercury	%	114			75-125	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	109			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S19-Ja13813	NCP	%	78			70-130	Pass	
TRH C10-C14	M19-Ja20034	NCP	%	130			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S19-Ja13813	NCP	%	88			70-130	Pass	
Toluene	S19-Ja13813	NCP	%	91			70-130	Pass	
Ethylbenzene	S19-Ja13813	NCP	%	93			70-130	Pass	
m&p-Xylenes	S19-Ja13813	NCP	%	94			70-130	Pass	
o-Xylene	S19-Ja13813	NCP	%	96			70-130	Pass	
Xylenes - Total	S19-Ja13813	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S19-Ja13813	NCP	%	81			70-130	Pass	
TRH C6-C10	S19-Ja13813	NCP	%	81			70-130	Pass	
TRH >C10-C16	M19-Ja20034	NCP	%	125			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M19-Ja14884	NCP	%	100			70-130	Pass	
Acenaphthylene	M19-Ja14884	NCP	%	98			70-130	Pass	
Anthracene	M19-Ja14884	NCP	%	91			70-130	Pass	
Benz(a)anthracene	M19-Ja14884	NCP	%	94			70-130	Pass	
Benzo(a)pyrene	M19-Ja14884	NCP	%	84			70-130	Pass	
Benzo(b&j)fluoranthene	M19-Ja14884	NCP	%	115			70-130	Pass	
Benzo(g.h.i)perylene	M19-Ja14884	NCP	%	82			70-130	Pass	
Benzo(k)fluoranthene	M19-Ja14884	NCP	%	93			70-130	Pass	
Chrysene	M19-Ja14884	NCP	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibenz(a.h)anthracene	M19-Ja14884	NCP	%	91			70-130	Pass	
Fluoranthene	M19-Ja14884	NCP	%	110			70-130	Pass	
Fluorene	M19-Ja14884	NCP	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M19-Ja14884	NCP	%	73			70-130	Pass	
Naphthalene	M19-Ja14884	NCP	%	104			70-130	Pass	
Phenanthrene	M19-Ja14884	NCP	%	105			70-130	Pass	
Pyrene	M19-Ja14884	NCP	%	118			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M19-Ja14779	NCP	%	85			70-130	Pass	
4.4'-DDD	M19-Ja14779	NCP	%	78			70-130	Pass	
4.4'-DDE	M19-Ja14779	NCP	%	73			70-130	Pass	
4.4'-DDT	M19-Ja14779	NCP	%	73			70-130	Pass	
a-BHC	M19-Ja14779	NCP	%	96			70-130	Pass	
Aldrin	M19-Ja14779	NCP	%	85			70-130	Pass	
b-BHC	M19-Ja14779	NCP	%	78			70-130	Pass	
d-BHC	M19-Ja14779	NCP	%	89			70-130	Pass	
Dieldrin	M19-Ja14779	NCP	%	88			70-130	Pass	
Endosulfan I	M19-Ja14779	NCP	%	78			70-130	Pass	
Endosulfan II	M19-Ja14779	NCP	%	102			70-130	Pass	
Endosulfan sulphate	M19-Ja14779	NCP	%	77			70-130	Pass	
Endrin	M19-Ja14779	NCP	%	83			70-130	Pass	
Endrin aldehyde	M19-Ja14779	NCP	%	104			70-130	Pass	
Endrin ketone	M19-Ja14779	NCP	%	97			70-130	Pass	
g-BHC (Lindane)	M19-Ja14779	NCP	%	98			70-130	Pass	
Heptachlor	M19-Ja14779	NCP	%	75			70-130	Pass	
Heptachlor epoxide	M19-Ja14779	NCP	%	105			70-130	Pass	
Hexachlorobenzene	M19-Ja14779	NCP	%	106			70-130	Pass	
Methoxychlor	M19-Ja14779	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S19-Ja06427	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M19-Ja14884	NCP	%	84			30-130	Pass	
2.4-Dichlorophenol	M19-Ja14884	NCP	%	69			30-130	Pass	
2.4.5-Trichlorophenol	M19-Ja14884	NCP	%	64			30-130	Pass	
2.4.6-Trichlorophenol	M19-Ja14884	NCP	%	65			30-130	Pass	
2.6-Dichlorophenol	M19-Ja14884	NCP	%	73			30-130	Pass	
4-Chloro-3-methylphenol	M19-Ja14884	NCP	%	74			30-130	Pass	
Pentachlorophenol	M19-Ja14884	NCP	%	107			30-130	Pass	
Tetrachlorophenols - Total	M19-Ja14884	NCP	%	93			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	M19-Ja14884	NCP	%	89			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M19-Ja14884	NCP	%	126			30-130	Pass	
2-Methylphenol (o-Cresol)	M19-Ja14884	NCP	%	71			30-130	Pass	
2-Nitrophenol	M19-Ja14884	NCP	%	69			30-130	Pass	
2.4-Dimethylphenol	M19-Ja14884	NCP	%	40			30-130	Pass	
2.4-Dinitrophenol	M19-Ja14884	NCP	%	74			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M19-Ja14884	NCP	%	80			30-130	Pass	
4-Nitrophenol	M19-Ja14884	NCP	%	117			30-130	Pass	
Dinoseb	M19-Ja14884	NCP	%	91			30-130	Pass	
Phenol	M19-Ja14884	NCP	%	84			30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M19-Ja20870	NCP	%	128			75-125	Fail	Q08
Cadmium	M19-Ja20870	NCP	%	103			75-125	Pass	
Chromium	M19-Ja20870	NCP	%	124			75-125	Pass	
Copper	M19-Ja20870	NCP	%	112			75-125	Pass	
Lead	M19-Ja20870	NCP	%	116			75-125	Pass	
Mercury	M19-Ja20870	NCP	%	101			70-130	Pass	
Nickel	M19-Ja20870	NCP	%	112			75-125	Pass	
Zinc	M19-Ja20870	NCP	%	109			75-125	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	M19-Ja10775	NCP	%	112			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M19-Ja14378	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M19-Ja14264	NCP	mg/kg	22	< 20	11	30%	Pass	
TRH C15-C28	M19-Ja14264	NCP	mg/kg	610	530	14	30%	Pass	
TRH C29-C36	M19-Ja14264	NCP	mg/kg	390	380	2.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M19-Ja14378	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M19-Ja14378	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M19-Ja14378	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M19-Ja14378	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M19-Ja14378	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M19-Ja14378	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M19-Ja14378	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M19-Ja14378	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M19-Ja14264	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M19-Ja14264	NCP	mg/kg	850	760	11	30%	Pass	
TRH >C34-C40	M19-Ja14264	NCP	mg/kg	220	290	24	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M19-Ja14850	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M19-Ja14850	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	M19-Ja14850	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	M19-Ja14850	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	M19-Ja14850	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Tokuthion	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M19-Ja14850	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M19-Ja14850	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M19-Ja14850	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	M19-Ja14850	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M19-Ja14850	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M19-Ja14850	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M19-Ja14850	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M19-Ja14850	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M19-Ja14850	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S19-Ja13541	NCP	mg/kg	13	11	20	30%	Pass	
Cadmium	S19-Ja13541	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S19-Ja13541	NCP	mg/kg	33	26	23	30%	Pass	
Copper	S19-Ja13541	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S19-Ja13541	NCP	mg/kg	24	20	14	30%	Pass	
Mercury	S19-Ja13541	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S19-Ja13541	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S19-Ja13541	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M19-Ja14550	NCP	%	18	12	34	30%	Fail	Q15

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)



Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

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