Legacy Property

Detailed Site Investigation

21 and 27 Derriwong Road and
614, 618 and 626 Old Northern Road,
Dural, NSW

31 July 2025

60935/146602 (Rev 3)

JBS&G Australia Pty Ltd

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Abbreviations

Term	Definition
ACM	Asbestos Containing Materials
AEC	Areas of Potential Environmental Concern
AHD	Australian Height Datum
ASS	Acid Sulfate Soils
AST	Above ground Storage Tank
AMP	Asbestos Management Plan
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CLM Act	Contaminated Land Management Act 1997
CEC	Cation Exchangeable Capacity
COC	Chain of Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DP	Deposited Plan
DQI	Data Quality Indicators
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EC	Electrical Conductivity
EIL	Ecological Investigation Levels
EPA	NSW Environment Protection Authority
ESLs	Ecological Screening Levels
ha	Hectare
HBMS	Hazardous Building Materials Survey
HILs	Health Investigation Levels
HSLs	Health Screening Levels
JBS&G	JBS&G Australia Pty Ltd
LEP	Local Environmental Plan
LOR	Limit of Reporting
NATA	National Accreditation Testing Authority
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCB	Polychlorinated Biphenyls
PID	Photoionisation Detector
POEO Act	Protection of Environment Operations Act 1997
PFAS	Per- and poly-fluorinated Alkyl Substances
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
VOC	Volatile Organic Compounds

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Legacy Property (Legacy, the client), to conduct a Detailed Site Investigation (DSI) to support a Planning Proposal request by the client to The Hills Shire Council (Council) to rezone land at Old Northern Road and Derriwong Road, Dural. The subject properties are located at 21 and 27 Derriwong Road, and 614, 618 and 626 Old Northern Road, NSW (the site). The site comprises five existing lots, legally identified as Lot 2 DP 567995, Lot X DP 501233, Lot 9 DP 237576, Lot 2 DP 541329 and Lot Y2 DP91653, and occupies an area of approximately 12.879 hectares (ha). The site location and layout are shown in **Figures 1** and **2**, respectively.

The Planning Proposal request seeks to rezone the site from RU6 Rural Transition to R2 Low Density Residential, facilitating the delivery of 110 dwellings and a new local park. The proposal also seeks to amend the maximum height of buildings standard from 10 metres to 9 metres. The Planning Proposal request is accompanied by a site-specific development control plan and offer to enter into a Voluntary Planning Agreement to secure public benefits associated with the proposal.

The indicative subdivision layout submitted with the Planning Proposal request provides a mix of larger residential lots ranging from 600sqm to 3,400sqm. This will contribute additional housing supply, diversity and choice in the local area, and support the viability of the Dural village centre.

A DSI is required to support the redevelopment planning. This DSI report documents the findings of a desktop review and intrusive investigations, and has been developed in general accordance with EPA (1995[1]), NEPC (2013[2]), EPA (2020[3] and 2017[4]) and the Hazards and Resilience SEPP[5] guidelines.

Based on the finding of this investigation, and subject to limitations in **Section 12**, the following conclusions are made:

- Previous and current environmental investigations have not identified gross or widespread contamination that would preclude development of the site for the proposed residential land use;
- Several areas of filling were observed, predominantly in the levelled areas in the eastern portion of 21 Derriwong Road and 618 Old Northern Road, beneath the workshop/shed and in the dam embankment at 21 Derriwong Road, potential filling associated with the former fruit shop at 626 Old Northern Road, and beneath the residence, behind the retaining wall and within the built-up area at 614 Old Northern Road;
- Management of impacted materials will be required at areas identified by previous and current investigations including the following:
    - Elevated concentrations of hydrocarbons were reported for surface soils (HA10) associated with an Aboveground Storage Tank (AST) at 618 Old Northern Road. Preliminary results indicate that the material would be classified as RSW for off-site disposal purposes;
    - ACM fragments were observed during the current investigation on the surface of a small stockpile and in gravel fill in the carpark, both adjacent to the dam (618 Old Northern Road), and a section of ACM pipe present in the southeast corner of the dam;

[1] *Contaminated Sites: Sampling Design Guidelines*. NSW Environment Protection Authority 1995 (EPA 1995)
[2] *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* National Environment Protection Council (NEPC 2013)
[3] *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines.* NSW EPA 2020 (EPA 2020)
[4] *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition).* NSW EPA 2017 (EPA 2017)
[5] State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).

- An ACM fragment was historically observed (ADE 2016a) on the ground surface of fill material utilised to level the ground for the workshop/shed at 21 Derriwong Road;
- In-situ ACM pipe (150 mm diameter) was identified near the dam at 618 Old Northern Road, extending approximately 120 m east from the northern bank of the dam, and a small section was observed west of the chemical storage shed. The pipes were in good condition and at approximately 0.5-0.6 m bgs. Trenches were completed at anticipated locations along the pipeline network until ACM pipe was no longer identified (see **Figure 4**). However, there is potential for sections of the pipeline to have historically been replaced by plastic and PVC pipes. As such, the full extent of the pipe network is unknown, and further ACM pipe maybe present elsewhere on the site.

- Although no asbestos was identified within dam walls during the current investigation, inclusions of brick and ceramics were observed, indicating that the materials are a mixed fill and potential inclusions of ACM may be present;
- Preliminary data for fill material across the site (excluding hydrocarbon concentrations at HA10) indicates that should remaining soils require off-site disposal they would be classified as general solid waste (GSW). Where asbestos impacts are identified, the material would be classified as special (asbestos) waste mixed with GSW;
- All remaining concentrations of chemical contaminants in soil samples were below the laboratory limit of reporting (LOR) and/or the adopted site criteria for residential with accessible soil land use scenarios;
- Analysis of representative surface water samples indicated that the preferred option for dewatering of the dam is to use the water for irrigation of adjacent lands or dust suppression during development works. Water quality results indicate the dam water should not be discharged to stormwater or local waterways.

In the absence of gross or widespread contamination, the requirements of the DUAP/EPA (1998) *Managing Land Contamination: Planning Guidelines* for this type of rezoning are considered to have been satisfied, namely that the rezoning can proceed, “provided that measures are in place to the ensure that the potential for contamination and the suitability of the land for any proposed use are assessed once detailed proposals are made” (s.4.1.2 DUAP/EPA 1998).

It is recommended that Hazardous Building Materials Survey be completed for all buildings at the site such that appropriate controls can be implemented to prevent contamination during future demolition. A Remedial Action Plan (RAP) should also be developed in accordance with the relevant regulatory requirements to address the identified impacts under the proposed land use.

It is further recommended that an Asbestos Management Plan (AMP) is developed for the site to manage potential asbestos risks consistent with Work Health and Safety (WHS) Regulations until such time as the risks are removed.

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Legacy Property (Legacy, the client), to conduct a Detailed Site Investigation (DSI) to support a Planning Proposal request by the client to The Hills Shire Council (Council) to rezone land at Old Northern Road and Derriwong Road, Dural. The subject properties are located at 21 and 27 Derriwong Road, and 614, 618 and 626 Old Northern Road, NSW (the site). The site comprises five existing lots, legally identified as Lot 2 DP 567995, Lot X DP 501233, Lot 9 DP 237576, Lot 2 DP 541329 and Lot Y2 DP91653, and occupies an area of approximately 12.879 hectares (ha). The site location and layout are shown in **Figures 1** and **2**, respectively.

The Planning Proposal request seeks to rezone the site from RU6 Rural Transition to R2 Low Density Residential, facilitating the delivery of 110 dwellings and a new local park. The proposal also seeks to amend the maximum height of buildings standard from 10 metres to 9 metres. The Planning Proposal request is accompanied by a site-specific development control plan and offer to enter into a Voluntary Planning Agreement to secure public benefits associated with the proposal.

The indicative subdivision layout submitted with the Planning Proposal request provides a mix of larger residential lots ranging from 600sqm to 3,400sqm. This will contribute additional housing supply, diversity and choice in the local area, and support the viability of the Dural village centre.

ADE (2015[6], 2016a[7],b[8] and c[9]) previously completed Preliminary Site Investigations (PSIs) for four of the properties (21 and 27 Derriwong Road, and 618 and 626 Old Northern Road) within the site. Based on the results of the investigations, it was concluded that there was potential for contaminants of concern to pose a risk to the proposed future users of the site and that further investigation into the nature and extent of contamination was required. ADE reported that it was likely that any contamination detected during further investigations would be capable of being remediated such that the site could be made suitable for the proposed land use.

This DSI report documents the findings of a desktop review and intrusive investigations, and has been developed in general accordance with EPA (1995[10]), NEPC (2013[11]), EPA (2020[12], and 2017[13]) and the Hazards and Resilience SEPP[14] guidelines.

1.2 Objectives

The objectives of this DSI were to characterise potential contamination at the site, and to draw conclusions regarding the suitability of the site for residential land uses, or, to make recommendations to enable such conclusions to be made.

[6] *Phase 1 Preliminary Site Investigation, 626 Old Northern Road, Dural, NSW*, prepared for Urbis Pty Ltd, by ADE Consulting Group, 30 October 2015 v.1 (ADE 2015)

[7] *Phase 1 Preliminary Site Investigation, 21 Derriwong Road, Dural, NSW*, prepared for Urbis Pty Ltd, by ADE Consulting Group, 6 May 2016 v.2 (ADE 2016a)

[8] *Phase 1 Preliminary Site Investigation, 27 Derriwong Road, Dural, NSW*, prepared for Urbis Pty Ltd, by ADE Consulting Group, 6 May 2016 v.2 (ADE 2016b)

[9] *Phase 1 Preliminary Site Investigation, 618 Old Northern Road, Dural, NSW*, prepared for Urbis Pty Ltd, by ADE Consulting Group, 6 May 2016 v.2 (ADE 2016c)

[10] *Contaminated Sites: Sampling Design Guidelines*. NSW Environment Protection Authority 1995 (EPA 1995)

[11] *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* National Environment Protection Council (NEPC 2013)

[12] *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines.* NSW EPA 2020 (EPA 2020)

[13] *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition).* NSW EPA 2017 (EPA 2017)

[14] State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).

1.3 Scope of Works

The scope of works comprised:

- Review of available historical information (PSIs, aerial photography, EPA databases, etc);
- Development and documentation of a conceptual site model (CSM) based on the available information and identified potential areas of environmental concern (AECs);
- Completion of investigation targeting the identified AECs in May 2021 (four properties) and August 2022 (614 Old Northern Road), including advancement of hand augers and testpits, and sediment and surface water sampling from the onsite dam.
- Limited trench excavation completed in June 2021 to assess the presence and location of a potential asbestos containing material (ACM) irrigation pipe network;
- Analysis of selected soil, sediment and surface water samples at a NATA accredited laboratory for various contaminants of potential concern (COPCs) and comparison of data with the adopted site land use criteria, pursuant to the *National Environmental Protection (Assessment of Site Contamination) Measure (NEPM)* (NEPC 2013[15]);
- Detailed site inspection of 21 and 27 Derriwong Road, and 618 and 626 Old Northern Road in June 2022 to confirm the land use and condition remained consistent to that observed during the intrusive investigation; and
- Preparation of a DSI report in accordance with relevant EPA made or endorsed guidelines.

[15] *National Environment Protection (Assessment of Site Contamination) Measure 1999*, as amended 2013, National Environment Protection Council (NEPC 2013).

2. Site Condition and Surrounding Environment

2.1 Site Identification

The location and site layout are shown in **Figures 1** and **2** respectively. The site details are summarised in **Table 2.1** below.

Table 2.1: Summary of Site Details

Site Legal Identifier	Lot 2 DP567995, Lot X DP501233, Lot 9 DP237576, Lot 2 DP541329 and Lot Y2 DP91653
Site Address	21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road, NSW
Site Area	12.879 ha
Local Government Authority	The Hills Shire Council
Site Geographic Coordinates (Map Grid of Australia (MGA) 56)	E: 316898 N: 6270927
Current Zoning The Hills Local Environmental Plan (LEP) 2019	RU6: Transition (most of site) SP2:infrastructure (eastern length of 626 Old Northern Road)
Previous/Current Land Uses	Rural residential, vacant land (626 Old Northern Road)
Current Land Uses	Rural residential
Proposed Land Uses	Low-density residential housing development

2.2 Site Description

Site inspections were undertaken by JBS&G staff during the intrusive investigation of the four properties on 13 and 14 May 2021, and on 30 June 2022. A site inspection was also undertaken on 22 August 2022 at 614 Old Northern Road. The following summarises the findings of the inspections, with the site features presented on **Figure 2** and photographs taken during the inspections and investigations presented in **Appendix A**.

21 Derriwong Road, Dural (Lot 2 DP567995)

- An asphalt sealed driveway bound the northern length of the western portion of the property. The driveway continued east, however crossed into the northern neighbouring property (within the site boundary).
- Overgrown vegetation was observed in areas of mounding in the southwest (former mulch stockpile area) and northeast (levelled area) of site, with mulch scattered around the areas (**Photographs 1** and **2**).
- A stockpile of bitumen, gravelly clay and mulch was located in the northwest side of the site, adjacent to the driveway (**Photograph 3**).
- A residence and workshop shed were located in the central northern portion of the site. The residence was surrounded by a concrete slab, and an asphalt/gravel driveway/carpark was present between the structures (**Photograph 4**). Potential ACM eaves were noted on the residential structure, in generally good condition.
- The workshop was built on raised fill material, and anthropogenic material was present along the southern boundary with a septic tank adjacent (**Photograph 5**). ADE (2016a) identified an ACM fragment on the ground surface of the northern length of the shed. This was not observed by JBS&G, potentially due to thick ground cover.
- Most of the property was dedicated to a grass paddock for grazing goats (**Photograph 6**).

27 Derriwong Road, Dural (Lot 9 DP237576)

- A residence was located in the southeast portion of the property, with potential ACM eaves (**Photograph 7**).
- A septic tank was present west of the residence, obscured by thick grass cover.

- Most of the site was dedicated to grass paddocks (**Photograph 8**), with an ephemeral drainage path to the west through the centre of the site (leading to O'Hara's Creek further west) as shown on **Figure 2**.

614 Old Northern Road, Dural (Lot Y2 DP91653)

- A concrete driveway led from Old northern Road through a turfed front yard (**Photograph 9**) to the residence, with a gravel parking area on the western side of the residence. A residence (**Photograph 10**) was located in the eastern portion of the property, with potential ACM panels and eaves.
- Corrugated metal sheds and piles of brick and wood were located southwest of the residence (**Photograph 11**).
- A backfilled and turfed swimming pool was noted north of the residence (**Photograph 12**). A septic tank was present west of the residence, with no areas of saturation/overflow noted.
- A north to south orientated stone retaining was observed west of the residence. General household waste (carboard, plastic, fabric, glass, grass clippings, bricks etc) was stored against the wall (**Photograph 13**).
- An overgrown pile of waste was located immediately west of the retaining wall, with a mattress, frame and stone bricks, and charcoal observed at the base. A stone pile was also located in the area (**Photograph 13**).
- The western portion of the property was thickly covered with high vegetation and sporadic piles of stone (**Photographs 14** and **15**).
- The ground level at the western end of the northern boundary was built up to at least 2 m above the neighbouring property (21 Derriwong Road) (**Photograph 16**).
- Most of the property was dedicated to grass or weed covered.

618 Old Northern Road, Dural (Lot X DP501233)

- The northern length and most of the southern length of the property included asphalt sealed driveways.
- The eastern portion of the site included a residence, outhouse and two main sheds (referred to as the north and south sheds). Potential ACM sheeting was noted in the residence eaves, the outhouse and in a small southern section of the southern shed (**Photographs 17** to **20**).
- A raised, levelled area was present immediately west of the southern shed, with a large area of discarded anthropogenic waste (**Photograph 21**). The western length of the raised area was covered with mulch (**Photograph 22**).
- Mulch was also observed along the western boundary of the northern shed.
- Most of the property was dedicated to grass paddocks for grazing goats and sheep (**Photograph 23**).
- A large dam was located in the western portion of the property. The western and southern walls were raised, approximately 5 m high at the highest point (**Photograph 16**). A potential collapsed former shade structure, chemical storage shed and discarded anthropogenic waste were located north of the dam (**Photographs 25** and **26**). A small section of potential ACM containing pipe was observed at the end of a PVC drainage outlet, in the southeastern corner of the dam (**Photograph 27**).

- A stockpile of shaley clay, assumed to have been excavated from the dam edge, was located immediately west of the chemical storage shed (**Photograph 28**). An ACM fragment was observed at this location.
- Anthropogenic waste was located around a tree at the western end of the area (**Photograph 29**). A gravel covered pavement area was present east of the dam (**Photograph 30**) and 2 ACM fragments were observed to be associated with the gravel.
- Staining was observed during the intrusive investigation east of the anthropogenic stockpile (at the southern end of the raised area), at the location of an historic aboveground storage tank (AST) (**Photograph 31**). The area was observed to be covered by thick vegetation in June 2022.
- Septic tank and toilet were located north of the sheds (**Photograph 32**)

626 Old Northern Road, Dural (Lot 2 DP541329)

- A gravel carpark was located on the eastern length of the property with shrubs and overgrown grass and weeds (**Photograph 33**).
- A vacant run-down concrete building was present west of the carpark (**Photograph 34**). Previous investigation indicated this was a former fruit shop. ADE (2015) observed an ACM fragment on the ground surface of the structure, however this was not identified during site inspections completed by JBS&G.
- Most of the site was a grassed paddock, located west of the building and carpark, and sloped downward to the west (**Photograph 35**).
- Anthropogenic material was mounded and buried immediately west of the building (**Photograph 36**).

A review of NearMap imagery from December 2023[16] indicated that visible aspects of the site appear consistent with that observed during the previous site inspections, as described above.

2.3 Surrounding Land Uses

The current land uses of surrounding properties are summarised below:

- North – the land north of site is utilised for commercial purposes, including restaurants/cafes, function centres, a pharmacy, etc. Further north were rural residential and agricultural properties;
- East– Dural Public School was located immediately east of and enveloped by the site. Old Northern Road bound the eastern length of the site and the school. Beyond were rural residential and agricultural properties, and Tunks Creek with residual riparian vegetation;
- South – a rural residential properties, Derriwong Street, and a tributary of O'Haras Creek with residual riparian vegetation. Beyond was medium density residential land; and
- West – Derriwong Road, rural residential land, O'Haras Creek (and tributaries) with residual riparian vegetation.

[16] https://apps.nearmap.com/maps/#/@-33.6860521,151.0258263,18.00z,0d/V/20231209, NearMap Imagery

2.4 Topography

ADE (2015, 2016a, b and c) described the topography of the four properties as sloping downwards to the west.

A review of topographic information obtained from NSW LPI (2019[17]) indicated that the site had a general western slope, ranging from 186 m to 220 m Australian Height Datum (AHD). The highest elevation was located on a plateau at the southwest corner of 614 Old Northern Road, and the lowest point was located at the western point of 618 Old Northern Road. The northern properties (626 Old Northern Road and 27 Derriwong Road) sloped generally downward to the northwest, while the 21 Derriwong Road and 618 Old Northern Road sloped generally southwest and 614 Old Northern Road sloped west.

2.5 Geology and Soils

ADE (2015, 2016a, b and c) reported that the site is underlain by soils of the Wianamatta group Ashfield Shale and Bringelly Shale formations. Ashfield shale is characterised by laminate and dark grey shale and Bringelly shale consists of shale, calcareous claystone, laminate and fine to medium grained lithic-quartz stone.

Reference to the online ESPADE 2.2 tool hosted by the NSW Office of Environment and Heritage (OEH 2019[18]) indicated that most of the site is characterised by the Glenorie Soil Landscape. Soils of this landscape comprise shallow to moderately deep (<100 cm) red podzolic soils on crests, moderately deep (70–150 cm) red and brown podzolic soils on upper slopes, and deep (>200 cm) yellow podzolic soils and gleyed podzolic soils along drainage lines. Limitations of these soils include that they have a high soil erosion hazard, localised impermeable highly plastic soil, and that they can be moderately reactive.

The western portion of 21 Derriwong Road and 618 Old Northern Road and the southwest portion of 614 Old Northern Road are characterised by the Lucas Heights Soil Landscape. Soils of this landscape comprise moderately deep (50–150 cm), hardsetting yellow podzolic soils and yellow soloths, and yellow earths on outer edges. Limitations of these soils include that it is stony soil, has low soil fertility, and has low available water capacity.

2.6 Hydrology

An ephemeral drainage path was present through the general centre of 27 Derriwong Road, leading from the northwest corner of the school to the west, flowing to O'Haras Creek. A dam was also present on 618 Old Northern Road, with an overflow path at the western corner. The path led to a shallow channel along the western length of the property.

With the site largely unsealed, rainfall is expected to infiltrate the clay soils. Surface water runoff generated during heavy or prolonged rain periods is expected to flow to the west, towards the closest tributary of O'Haras Creek. The inferred direction of groundwater is an overall western flow, towards O'Haras Creek, approximately 350 m west of the site.

2.7 Hydrogeology

A search of the WaterNSW (2022[19]) database was undertaken and results are included as **Appendix B**. A total of 18 licensed bores were identified within 1 km of the site, and their relevant information is summarised in **Table 2.2**.

[17] 2m Contours – Sydney NSW, NSW Land and Property Information (NSW LPI 2019)
[18] *ESPADE 2.2*. NSW Office of Environment and Heritage, accessed 22 August 2022, (OEH 2022).
[19] WaterNSW,https://realtimedata.waternsw.com.au/ , accessed 22 August 2022 (WaterNSW 2022)

Table 2.2 Registered Groundwater Bore Details Summary

Bore ID	Distance / Direction from Site	Intended Use	Drilled Depth (m bgs[1])	Standing Water Level (m)	Geological Material (m bgs)
GW105866	onsite	Stock, domestic	-[3]	-[3]	-[3]
GW108938	65 m / west	Domestic	180.0	40.0	-[3]
GW108168	125 m / west	Stock, domestic	237.4	34.0 WBZ[2]: 65.0-66.0, 112.0-113.0, 128.0-130.0, 232.0-236.0	0-0.5: topsoil 0.5-34.5: sandstone 34.5-39.0: shale 39.0-51.0: sandstone with some layers of shale and siltstone
GW105497	150 m west	Stock, domestic	150.0	29.0 WBZ[2]: 62.3-62.4, 69.2-70.0, 126.0-127.3, 136.5-137.8	0-0.3: topsoil 0.3-150: sandstone with some quartz lenses/layers
GW105443	500m / northwest	Stock, domestic	180.5	73.0 WBZ[2]: 71.5-80.5, 115.5-118.5, 123.5-124.5, 154.0-160.5	0-0.2: topsoil 0.2-1.6: clay 1.6-180.5: sandstone with some quartz lenses/layers
GW072412	580 m / north	Domestic	204.5	WBZ[2]: 145.1-145.4, 199.3-199.5	0-0.4: topsoil 0.4-17.0: shale 17.0-204.5: various sandstone and shale layers
GW018964	640 m / west	irrigation	76.2	3.5, 6.0 WBZ[2]: 9.7-10.6, 21.3-27.3, 39.6-40.5	0-0.91: loamy sand 0.91-4.26: boulders 4.26-13.71: sandstone (water supply) 13.71-16.76: shale 16.76-44.19: sandstone (water supply) 44.19-47.24: shale 47.24-76.20: sandstone
GW110568	680 m /southwest	Monitoring Bore	7.0	WBZ[2]: 5.0-6.5	0-2.0: clay 2.0-7.0: shale
GW110567	700 m /southwest	Monitoring Bore	8.0	WBZ[2]: 6.0-8.0	-[3]
GW104365	750 m / southwest	Test Bore	198.0	70.0 WBZ[2]: 53.5-54.0, 123.0-124.5, 152.0-154.0, 191.5-192.0	0-4.0: clay 4.0-48.0: sandstone 48.0-48.5: clay 48.5-57.0: sandstone 57.0-57.5: shale 57.5-59.5: sandstone 59.5-60.0: shale 60.0-198.0: sandstone
GW110309	760 m / southeast	Monitoring Bore	10.0	3.1 WBZ[2]: 5.2-8.5	0-2.9m: clayey sand (fill) 2.9-10m: sandstone
GW110308	760 m / southeast	Monitoring Bore	7.0	2.8 WBZ[2]: 5.0-7.0	0-1.5m: sandy gravel (fill) 1.5-2.2m: clay 2.2-7m: sandstone
GW110310	760 m / southeast	Monitoring Bore	8.5	3.2 WBZ[2]:6.5-8.5	0-2.8m: sand and gravel (fill) 2.8-8.5m: sandstone
GW106600	790 m / northwest	Stock, domestic	180.2	WBZ: 29.5-29.7, 100.3-100.4, 151.2-156.8, 163.3-166.3	0-0.5: topsoil 0.5-34.2: sandstone 34.2-34.5: shale 34.5-180.2: sandstone with some shale and siltstone layers
GW107163	890 m / east	Stock, domestic	204.2	50.8 WBZ[2]: 19.6-19.9, 146.2-147.1	0-0.1: sandy clay 0.1-27.7: sandstone 27.7-29.6: shale 29.6-204.2: sandstone with various layers of shale, siltstone and clay

Bore ID	Distance / Direction from Site	Intended Use	Drilled Depth (m bgs[1])	Standing Water Level (m)	Geological Material (m bgs)
GW108556	920 m / east	Stock, domestic	210.0	80.0 WBZ[2]: 55.0-59.0, 84.0-84.5, 112.0-115.0, 166.0-171.0	0-1.0: clay 1.0-28.0: sandstone 28.0-31.0: sandy clay 31.0-210.0: sandstone with various layers of siltstone
GW105755	930 m / northwest	Stock, domestic	180.5	59.0 WBZ[2]: 61.5-62.5, 108.0-110.5, 145.5-147.5, 152.5-155.5	0-0.2 topsoil 0.2-21.6: sandstone 21.6-28.5: shale 28.5-34.6: siltstone 34.6-48.5: sandstone 48.5-49.5: siltstone 49.5-180.5: sandstone with some quartz lenses/layers

[1] bgs:- below ground surface

[2] WBZ – Water Bearing Zone

[3] No information provided

Based on local topography, groundwater flow is anticipated to be to the west, towards O'Haras Creek and associated tributaries. Groundwater aquifers are at depth (>15m) in bedrock.

Shallow groundwater at the site is anticipated to be found in low lying areas throughout the site. While on top of hills, groundwater is expected to be deeper, with the potential for perched water at the interface of residual soils and bedrock.

2.8 Acid Sulfate Soils

ADE (2015, 2016a, b and c) reported that the site fell within an area of "no known occurrence or low risk" of acid sulphate soils.

A review of the online eSPADE Acid Sulfate Soil (ASS) Risk Maps indicated that there are no risk maps available for the site. Based on the review of geology maps, soil maps, the council section 10.7 certificates, site topography and site observations it is highly unlikely that acid sulfate soils would be present on-site. No further consideration of requirements for the management of acid sulfate soil is warranted.

2.9 Meteorology

A review of long-term average climatic data collected at the nearest Bureau of Meteorology monitoring site Parramatta North (Masons Drive)[20], suggests the site experiences the following meteorological setting:

- Average maximum temperatures range from 17.5°C in July to 28.6°C in January;
- Average minimum temperatures range from 6.3°C in July to 17.7°C in January;
- Annual average rainfall is approximately 968.3 mm, with the average number of days receiving >1 mm falling approximately 90.5 days per year; and
- Monthly rainfall varies from 49.6 mm in September to 128.4 mm in February, with the wettest periods on average experienced from January to March.

[20] http://www.bom.gov.au/climate/averages/tables/cw_066124.shtml, Commonwealth of Australia, 2021 Bureau of Meteorology, Prepared at 25 August 2022.

3. Previous Investigations

ADE was engaged by Urbis to conduct PSIs at 21 Derriwong Road (ADE 2016a), 27 Derriwong Road (ADE 2016b), 618 Old Northern Road (ADE 2016c) and 626 Old Northern Road (ADE 2015). The scope of works at each property included a desktop review of site history and site condition records and a detailed site inspection.

The site inspections were undertaken in July 2015 and comprised a visual assessment of the site. The AECs identified by ADE included the following:

21 Derriwong Road, Dural

- Historical and current agricultural land use;
- A stockpile of ACM pipes in the eastern portion of the site;
- Potential in-situ asbestos pipes used in irrigation lines;
- Storage of agricultural equipment, chemicals and supplies;
- Septic tank;
- Fill materials to make finished site levels;
- Asbestos fragment identified on the surface of fill material beneath the shed; and
- Potential historical AST in the eastern portion of the site, on concrete slab. A potential ACM sheeting was also observed on the slab.

27 Derriwong Road, Dural

- Historical and current agricultural land use; and
- Waste-water treatment tank.

618 Old Northern Road, Dural

- Historical and current agricultural land use;
- Asbestos containing material on the ground surface in various locations;
- AST;
- Stockpiles and fill materials used to establish finished site levels;
- Storage of agricultural equipment, chemicals and supplies; and
- Waste-water treatment tank.

626 Old Northern Road, Dural

- Commercial land use (Fruit shop and use as a storage area for landscaping supplier);
- ACM on the ground surface inside the site structure; and
- Fill materials associated with the carpark/storage area, and stockpiles west of the site structure.

Based on the results of the investigations, it was concluded that there was potential for contaminants of concern to pose a risk to the proposed future users of the site and that further investigation into the nature and extent of contamination was required. ADE reported that it was likely that any contamination detected during further investigations would be capable of being remediated such that the site could be suitable for the proposed land use.

With the exception of 626 Old Northern Road, it was also recommended that based on the age of the structures, and the presence of suspected ACM, a hazardous materials building inspection be conducted for all structures located on the site to enable appropriate management during future development.

4. Site History

4.1 Aerial Photographs

Aerial images between 1930 and 2015 were assessed by ADE (2015, 2016a, b and c) for 21 and 27 Derriwong Road and 618 and 626 Old Northern Road.

Historically the site and surrounding land were largely utilised for orchards and market gardens.

618 Old Northern Road was partially vegetated with stands of trees and orchards until it was cleared between 1956 and 1965. From this time the land was utilised as market gardens, and a dam was also constructed in the present-day location. The dam boundary was reshaped between 1965 and 1975. Structures were constructed at the site between 1947 and 1994.

A review of NearMap imagery for 2016 indicated that the edges of the levelled and raised areas in the eastern portion of 21 Derriwong Road and 618 Old Northern Road (see **Appendix C**) appeared to have been used as storage areas. The materials were no longer visible in the April 2021 image, and the areas had been further built up. Large mulch and wood stockpiles in the western portion of 21 Derriwong Road had also been removed in this time, likely used to build up the levelled areas.

To supplement the ADE assessments historical aerial photographs of 614 Old Northern Road provided by the Land and Property Information Division of the Department of Finances, Services and Innovation or Near-Map Imagery were reviewed for this assessment (**Appendix C**). The aerial photograph review identified the following features in relation to historical use of the site:

1947	The property had been largely cleared and appeared to have formed a larger parcel of land with the northern neighbouring land (present-day 21 Derriwong Road). The property appeared to be sectioned into three areas. An orchard was present in the western end of the property, with some residual bushland along the south-western boundary. A track or channel was visible along the eastern side of the orchard. The general centre appeared to be a grass paddock and potential earthworks/ground flattening had occurred in the east. Old Northern Road had been established along the northeast boundary of the property. The surrounding land was utilised for rural residential and agricultural (orchards/market gardens) purposes, with residual bushland visible to the southwest of the property.
1961	A residence, shed and associated driveway had been constructed in the east of the property, at the former earthworks area. Potential animal shelters were present in the central paddock, as well as an increase in tree cover. The property appeared to have been subdivided into the present-day parcel and the orchard was no longer visible. Structures (residences, sheds and school buildings) had been constructed on surrounding properties, and Derriwong Road had been established along the southwest length of the property. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1947 image.
1965	The animal shelters were no longer visible on the property, and a dam was present at 618 Old Northern Road. Some tree clearing had occurred on land west of the property. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1961 image.
1975	Potential earthworks were visible west of the residence (in the former central paddock), and a potential stockpile was present in the western end of the property. Further tree clearing had occurred on land west of the property. The dam at 618 Old Northern Road had been reshaped. Additional structures were present at the school north of the property. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1965 image.

1982	The trees in the general centre of the property had been largely cleared. Potential animal yards (i.e. dog yards or chicken coops) were visible northwest of the residence. An area west of the residence had been cleared and resurfaced potentially with gravel or asphalt. A structure was present at the southern end of the area. The driveway had been extended from the shed, along the south property boundary to the structure area. Bushland southwest of the property had been cleared, as well as some riparian vegetation to the northeast. Further residential development has occurred southwest of the property. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1975 image.
1994	The residence had been extended and the potential animal yards removed. A pool was visible north of the residence and a retaining wall was visible in the present-day location west of the residence. The resurfaced area and structure west of the residence, and stockpile in the west of the property had also been removed. Most of the grass cover and all trees in the centre and west of the property had been cleared. Small stockpiles were visible in the western end of the property. Further residential development had occurred northwest and north of the property. Residual riparian vegetation northeast of the property had been removed and bushland southwest of the property had been further cleared. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1982 image.
2004	Ground cover had largely spread across the centre and western portion of the property. The stockpiles were no longer visible. Some ground disturbance was visible at the former resurfaced area. Further residential development had occurred northwest of the property and the creek line northeast of the property had been dammed. Several former market gardens in the surrounding land were no longer visible. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 1994 image.
2012	Small areas of rock stockpiles present in the west of the property. The ground cover had extended across the ground disturbance at the former resurfaced area. Further residential development had occurred southwest of the property. The remainder of 614 Old Northern Road and the surrounding land appeared similar to the 2004 image.
2022	Current site conditions are discussed in **Section 2.2**

4.2 Historical Land Title Records

A copy of the historical title's documentation obtained for 614 Old Northern Road is provided in **Appendix D**.

614 Old Northern Road was historically privately owned, including orchardists (1918 to 1954), company directors, a dry cleaner and interior decorator. The land is currently privately owned.

A 1.5 m drainage easement is present along the north-western property boundary, and a 15.24 m wide, north to south orientated transmission line easement is located in the western portion of the property.

ADE (2015, 2016a, b and c) provided the results of historical land title searches for 21 and 27 Derriwong Road and 618 and 626 Old Northern Road. A summary of the results is detailed below:

- The site was listed as crown land from 1823. Some records were missing for each property;
- 21 Derriwong Road – The land was historically privately owned, with a part transfer for a council easement in 1974. The professions of the previous landowners were not documented;
- 27 Derriwong Road – The land was historically privately owned, with a part transfer for a council easement in 1969. The professions of the previous landowners were not documented;

- 618 Old Northern Road - The land was historically privately owned, with a part transfer for a transmission easement in 1964. The professions of the previous landowners were not documented; and
- 626 Old Northern Road - The land was historically privately owned, with some listed landowner/tenant professions including a fruit inspector, orchardist, grower and truck driver. Commercial entities (Kelvin Park Investments Pty and Ben Nomindes Pty Ltd) also owned the land between 1960 and 1972.

4.3 EPA Records

A search of the NSW EPA database was undertaken for the site and immediate surrounding properties. EPA records are provided in **Appendix E**. The search was undertaken through the following public registers:

- NSW EPA *Protection of the Environment Operations Act 1997* (POEO Act) public register of licence, applications and notices (maintained under Section 308 of the POEO Act).
    - No prevention, clean-up or prohibitions notices has been issued under the POEO Act for the site or immediate surrounding land.
- NSW EPA contaminated land public register of record of notices (under Section 58 of the *Contaminated Land Management Act 1997* (CLM Act)).
    - No notices have been issued under the CLM Act for the site;
    - Caltex Dural Service Station located at 917-923 Old Northern Road, approximately 200 m north of site, was listed. However, regulation under the CLM Act is not required;
    - BP Dural Service Station located at 580 Old Northern Road, approximately 700 m south of site was listed. However, regulation under the CLM Act is not required; and
    - Caltex/Woolworths Dural Service Station located at 530/532 Old Northern Road, approximately 560 m southwest of site was listed. However, regulation under the CLM Act is not required.
- NSW contaminated sites notified to the EPA (under Section 60 of the CLM Act).
    - The site or immediate surrounding are not on the list of NSW contaminated sites notified to the EPA.
- Per- and polyfluoroalkyl substances (PFAS) Investigation Program.
    - The site is not listed by EPA on the NSW Government PFAS Investigation program. The closest PFAS investigation area identified by the EPA is Westleigh NSW Rural Fire Service (RFS; 12 Warrigal Drive, Westleigh). Given the RFS Base is 5 km southeast of the site, and several creek systems separate it from the site, it is unlikely PFAS related impacts at the Base pose a risk to the site.

4.4 Australian and NSW Heritage Register

A search of the Australian and NSW Heritage database and the NSW Heritage database was undertaken and records are included in **Appendix F**.

The search did not identify the presence of items of national or state significance at the site or in the immediate surrounding area.

4.5 Council Planning Certificates

Section 149 Planning certificates were obtained by ADE (2015, 2016a, b and c) for 21 and 27 Derriwong Road and 618 and 626 Old Northern Road. Section 10.7 (2) and (5) Planning certificates were obtained for 614 Old Northern Road (Lot Y2 DP91653), from the Hills Shire Council (**Appendix G**). The planning certificates included the following pertinent information regarding the site.

The section regarding the matters prescribed by section 59(2) of the Contaminated Land Management Act 1997 reported that the following information was available to Council:

- The land was not within an investigation area or remediation site;
- The land was not subject to an investigation order or a remediation order;
- The land was not subject to an approved voluntary management proposal;
- The land is not subject to an ongoing maintenance order; and
- The land was not the subject of a site audit statement.

In addition, the land was not restricted by development controls relating to the likelihood of landslip, tidal inundation, subsidence, acid sulfate soils or flooding. The site does not include or comprise critical habitat.

The site has been identified as bushfire prone land and is subject to bushfire related controls. 626 Old Northern Road is affected by environmental planning controls for road widening and realignment.

The 10.7 certificate indicated that Provisions apply to 614 Old Northern Road that control the management of trees and bushland and the land is located in the vicinity of a heritage item or conservation area.

4.6 Dangerous Goods Search

ADE (2015, 2016a, b and c) requested historical records of stored Dangerous Goods held by Workcover NSW (now SafeWork NSW) for each property. No dangerous goods were registered to the site, however an AST was present on 618 Old Northern Road, and has since been removed.

A dangerous goods licence search of the stored chemical information database of SafeWork NSW was not considered necessary for 614 Old Northern Road due to the current and previous land use history.

4.7 Anecdotal Evidence

The former landowner indicated that irrigation pipes are present at the site, potentially leading from the dam, through 27 Derriwong Road and into 626 Old Northern Road. The location of the irrigation trenches and material type (potentially ACM) was unknown.

ADE (2015 and 2016b) reported that anecdotal information provided by a nearby local business owner suggested that 626 Old Northern Road and 27 Derriwong Road were previously used as a peach orchard.
It was reported by the landowner at 614 Old Northern Road that the western portion of the property was used to dispose of offcuts from stonemasonry works.

4.8 Integrity Assessment

The information obtained from the historical review has been found to be in general agreement. It is therefore considered that the information provided in this historical assessment has an acceptable level of accuracy.

Based on the range of sources and the consistency of the historical information, it is considered that the historical assessment has an acceptable level of accuracy with respect to the potentially contaminating activities historically occurring at the site.

5. Conceptual Site Model

5.1 Potential Areas of Environmental Concern

Based on the site history review and observations of site conditions during the detailed site inspection, AECs and associated COPCs at the site have been identified and are presented in **Table 5.1**.

Table 5.1: Areas of Environmental Concern and Associated Contaminants of Potential Concern

Area of Environmental Concern (AEC)	Contaminants of Potential Concern (COPC)
Historical use of the site for rural and agricultural purposes, including former orchards	Heavy metals, OCPs, TRH/BTEX, PCBs, asbestos
Potential for fill during levelling activities in the residential areas	Heavy metals, OCPs, TRH/BTEX, PCBs, asbestos
Dam walls	Heavy metals, TRH, BTEX, PAHs, OCPs, PCBs, asbestos
Potential ACM irrigation pipes	Asbestos
Former and existing structures	Heavy metals, asbestos, OCPs
Maintenance of farm machinery	Heavy metals, TRH/BTEX, PAHs, OCPs, asbestos
AST at 618 Old Northern Road and 21 Derriwong Road	Heavy metals, TRH/BTEX, PAHs
Stockpiles	Heavy metals, TRH, BTEX, PAHs, OCPs, PCBs, asbestos
Potential disposal of liquid waste within septic tanks	Heavy metals, TRH/BTEX
Dam sediments and surface water	Heavy metals, TRH/BTEX, OCPs

5.2 Potentially Contaminated Media, Exposure Pathways and Receptors

Potentially contaminated media that may be present at the site include:

- Surface soil;
- Fill materials;
- Natural soil/bedrock;
- Surface water; and
- Groundwater.

Site historical information identified the potential for fill at the site within dam walls and levelled areas. The source of fill material is unknown and therefore has been identified as a potentially contaminated medium. In addition, surface soils (whether fill material or natural) in some areas of the site are considered to be a potentially contaminated medium based on historical agricultural land use, and the presence of hydrocarbon staining.

Based on the potential leachability of contaminants within fill material/surface soils and the historical use of the site, vertical migration of contamination from the fill materials/surface soils into the underlying natural soils/rock may have occurred. As such, the natural site soils are considered to be a potentially contaminated medium.

Surface water in the onsite dam has been identified as a potentially contaminated medium at the site, given potential for runoff from agricultural areas.

Groundwater at the site is considered unlikely to be a potentially contaminated medium based on the surficial nature of historical potentially contaminating activities, the low permeability of the surface and subsurface soils (clays) (**Section 2.5**), and likely depth to groundwater.

5.3 Potential for Migration

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);

- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The potential contaminants identified as part of the site history review are generally in either a solid form (e.g. heavy metals, asbestos, etc.) and liquid form (e.g. pesticides, fuel, etc.). The site is covered in vegetation (thick grasses) which significantly reduces the potential for windblown contaminants to migrate from the site. There is the potential for migration of contaminants via surface water flow towards dams on the site.

As the site is unpaved, there is potential for vertical contaminant migration from soils to shallow (perched) groundwater, if present, via infiltration. As noted above, the potential for contaminant migration to deeper groundwater is unlikely.

5.4 Potential Exposure Pathways

Potential human receptors of environmental impact include future site users, visitors and construction/maintenance contractors engaged to work at the site who may potentially be exposed to COPCs through inhalation or direct contact with impacted soils. Interaction with potentially impacted groundwater and vapour is not considered to be likely given the above discussion. Exposure to windblown dusts may pose a potential risk to sensitive human receptors, however these are also considered unlikely given the predominantly vegetated site surfaces.

During redevelopment of the site, potential human receptors will include:

- Potential dermal contact with and ingestion of impacted soils as present at shallow depths or accessible by future excavations by site workers, visitor and occupants;
- Potential inhalation within future excavations by site workers, visitor and occupants of COPC vapours migrating upwards and laterally from hydrocarbon storage/handling impact areas;
- Current and future site users and site workers who may potentially be exposed to COPC through direct contact with or ingestion of impacted surface water; and
- Current and future site users and site workers who may potentially inhale asbestos fibres from impacted fill.

The site is currently primarily covered by vegetation, presenting ongoing potential ecological receptors, although no vegetation stress relating to potential contamination from known AECs was observed during site inspection. Flora on site are potential receptors of shallow soil contamination if present.

5.5 Preferential Pathways

For the purpose of this assessment, preferential pathways have been defined as natural and/or man-made pathways that result in the preferential migration of COPC as either solid (sediments, dust, etc), vapours or liquid (surface water).

Man-made preferential pathways are likely present throughout the site, generally associated with areas of previously disturbed natural ground present beneath the existing ground surface and unconsolidated fill materials, such as agricultural drains. Fill materials and disturbed natural soil are anticipated to have a higher permeability than the underlying natural soils and/or bedrock.

6. Sampling Analysis and Quality Plan

6.1 Data Quality Objectives

Data quality objectives (DQOs) are statements that define the confidence required in conclusions drawn for data produced for a project, and which must be set to realistically define and measure the quality of data needed.

DQOs have been developed for this DSI, as discussed in the following sections.

6.1.1 State the Problem

The site is proposed to be developed for low-density residential land use. A DSI is required to sufficiently characterise the site to assess its suitability for the intended land use.

6.1.2 Identify the Decision

The decisions below generally follow the EPA (2017) decision making process for assessing urban redevelopment sites:

- Are there any unacceptable risks to likely onsite receptors?
- Are there any issues relating to the local area background concentrations that exceed appropriate criteria?
- Are there any chemical mixtures?
- Are there any unacceptable aesthetic issues?
- Is there any evidence of, or potential for, migration of contaminants from the site?
- Is a site management strategy required?

6.1.3 Identify Inputs to the Decision

Inputs to the decisions are:

- Environmental data collected by sampling, analysis and site observations made during the current investigation;
- Assessment criteria based on the intended land uses, preliminary design details and project objectives, as defined by assessment criteria nominated in **Section 7**; and
- Confirmation that data generated by sampling and analysis are of an acceptable quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance/quality control (QA/QC) as per the data quality indicators (DQIs) established in **Section 6.1.6**.

6.1.4 Define the Study Boundaries

The study boundary comprises the extent of the assessment area as shown on **Figure 2** and detailed in **Section 2.1**.

The vertical extent of the study was to a maximum of 2.0 m below ground surface (bgs).

6.1.5 Develop a Decision Rule

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

The decision rules adopted to answer the decisions identified in **Section 6** are summarised in **Table 6.1**.

Table 6.1: Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to likely onsite receptors?	Analytical data were compared against EPA endorsed criteria. Statistical analyses of the data in accordance with relevant guidance documents was undertaken, if appropriate, to facilitate the decisions. The following statistical criteria was adopted: Either: the reported concentrations are all below the site criteria; Or: the average[21] 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) of the average concentration for each analyte must be below the adopted site criterion. If the statistical criteria stated above are satisfied, the decision is No. If the statistical criteria are not satisfied, the decision is Yes.
2. Are there any issues relating to the local area background concentrations that exceed appropriate criteria?	If the 95% UCL results exceed published background concentrations, the decision is Yes. Otherwise, the decision is No.
3. Are there any chemical mixtures?	Are there more than one group of contaminants present which increase the risk of harm? If there is, the decision is Yes. Otherwise, the decision is No.
4. Are there any unacceptable aesthetic issues?	If there are any unacceptable aesthetic issues, the decision is Yes. Otherwise, the decision is No.
5. Is there any evidence of, or potential for, migration of contaminants from the site?	Were contaminants present in soil, groundwater and/or surface water at concentrations exceeding the adopted criteria and which might potentially migrate from the site? If yes, the decision is Yes. Otherwise, the decision is No.
6. Is a site management strategy required?	Is the answer to any of the above decisions Yes? If yes, the site is not considered suitable without a site management strategy. If no, the site is not considered suitable.

6.1.6 Specify Limits of Decision Error

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, NEPC (2013), DEC (2007[22]), appropriate indicators of data quality (DQIs used to assess QA/QC) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data will be assessed against pre-determined DQIs for completeness, comparability, representativeness, precision and accuracy.

[21] Statistical analysis will only be completed for samples with similar material types for soil.

[22] *Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination*. NSW Department of Environment and Conservation 2007 (DEC 2007)

The pre-determined Data Quality Indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters), and are shown in **Table 6.2**.

- **Precision** - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** –expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted criteria.

If any of the DQIs are not met, further assessment of the data set is required in order to determine whether the non-conformance has significant effects on the usefulness of the data. Corrective action to address an adverse impact on the reliability of the dataset may include, but is not limited to, the request of further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

Table 6.2: Summary of Quality Assurance / Quality Control Program

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<50% RPD[1], asbestos in agreement
Blind duplicates (inter laboratory)	1 / 20 samples	<50% RPD[1], asbestos in agreement
Laboratory duplicates[4]	1 / 20 samples	<50% RPD[1], asbestos in agreement
Accuracy		
Surrogate spikes[1]	All organic samples	70-130%
Laboratory control samples[1]	1 per lab batch	70-130%
Matrix spikes[1]	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes		-[2]
Samples extracted and analysed within holding times.	-	Soil: organics (14 days), inorganics (6 months)
Laboratory blanks[1]	1 per lab batch	<LOR
Trip spike	1 per sampling event	70-130% recovery
Trip blank	1 per sampling event	<LOR
Rinsate	1 per sampling data where reusable equipment is used	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples[2]
Standard analytical methods used for all analyses	All Samples	All samples[2]
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]
Limits of reporting appropriate and consistent	All Samples	All samples[2]
Completeness		
Sample description and COCs completed and appropriate	All Samples	All samples[2]
Appropriate documentation	All Samples	All samples[2]
Satisfactory frequency and result for QC samples	All QA/QC samples	-[2]
Data from critical samples is considered valid	-	Critical samples valid[2]
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All Samples	All samples

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods will be completed during the DQI compliance assessment.

6.1.7 Optimise the Design for Obtaining Data

Various strategies for developing a statistically based sampling plan are identified in EPA (1995), including judgemental, random, systematic and stratified sampling patterns. Based on a review of historical site uses and identified AECs (**Table 5.1**), a combination of a systematic and targeted sampling design was considered most appropriate for the current investigation to provide sufficient characterisation data. It is noted that at the time of planning and implementation of site investigations documented herein, the EPA (1995) *Sampling Design Guidelines* were in force. EPA (2022) has since been gazetted and replaces EPA (1995), however the sampling approach implemented and documented herein is consistent with the current guidelines.

6.2 Soil Sampling Methodology

Intrusive investigations were undertaken by one of JBS&G's suitably qualified and experienced environmental consultants on 13 and 14 May 2021, 3 June 2021 and 23 August 2022. Systematic inspection followed by sampling was undertaken to obtain general site environmental data across the site, allowing for the assessment of potential contaminants and inspection of fill conditions (e.g.

asbestos, aesthetic impacts). Targeted (judgemental) soil investigation locations were advanced to target identified potentially contaminated areas/media. Soil sample locations are shown on **Figures 3** and **4**.

Samples were collected via a combination of hand augers and test pits. Samples were also collected from the dam sediment utilising a backhoe, and surface water samples were collected directly from the water edge.

Boreholes were manually advanced via the use of hand tools (hand auger/shovel) and samples were collected at regular intervals from the surface soils (<0.1 m) to a maximum depth of 0.5 m bgs. Test pits were advanced utilising a backhoe and soil samples were collected directly from the bucket at regular intervals from the surface soils (<0.1 m), 0.3 m, 0.5 m then at every metre interval to maximum depth of 2.0 m bgs (see **Borelogs**, **Appendix H**).

Selected soil samples were screened for potential volatile organic compounds (VOCs) using a portable photo-ionisation detector (PID). During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination were noted.

Collected samples were immediately transferred to laboratory supplied sample jars and 500 mL zip-lock bags. The sample jars were transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory. Preservation of the primary soil and QA/QC samples obtained during this investigation was completed in accordance with the protocols outlined in NEPC 2013.

6.3 Duplicate and Triplicate Sample Preparation

Soil duplicate and triplicate samples were obtained during sampling using the above sampling methods. The collected samples were divided into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in the appropriate container or sample bag. Each sample was then labelled with a primary, duplicate or triplicate sample identification before being placed in the same chilled esky for laboratory transport.

6.4 Surface Water Sampling Methodology

Surface water grab samples were collected directly into sample containers from the edge of the dam water, where safe to do so.

Collected water samples were immediately filtered (as necessary) and transferred to laboratory supplied sample bottles. The sample containers were transferred to a chilled iced box for sample preservation prior to and during shipment to the testing laboratory. A chain of custody form was completed and forwarded with the samples.

6.5 Decontamination

Prior to the commencement of sampling activities, non-disposable sampling equipment, including shovel/hand auger were cleaned with a water/detergent spray, rinsed with water and then air dried. The equipment was then inspected to ensure that no soil, oil, debris or other contaminants were apparent on the equipment prior to the commencement of works. Sampling equipment was subsequently decontaminated using the above process between each sampling location. Decontamination and calibration certificates for field works are provided in **Appendix I**. New nitrile gloves were utilised for the collection of each soil sample to avoid cross contamination between samples and locations.

6.6 Laboratory Analysis

JBS&G contracted Eurofins|MGT (Eurofins) as the primary laboratory all analyses. The secondary laboratory for the investigation was Envirolab Services Pty Ltd (Envirolab). Both laboratories are National Association of Testing Authorities (NATA) accredited for all analytes. In addition, the

laboratories were required to meet JBS&G's internal QA/QC requirements. Copies of the laboratory reports are provided in **Appendix K.**

In addition to the above analyses, for QA/QC purposes field duplicates and triplicates were analysed at a rate of 1/20 for soil primary samples. Trip spike and trip blank samples accompanied the soil samples for each batch submitted to the laboratory.

7. Assessment Criteria

7.1 Regulatory Guidelines

The assessment of contaminant data for this investigation was undertaken with consideration to aspects of the following guidelines, as relevant:

- *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013),* National Environment Protection Council (NEPC 2013);
- *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme*, 3rd Edition, NSW EPA, 2017 (NSW EPA 2017);
- *Contaminated land guidelines: Consultants reporting on contaminated land*, April 2020 (NSW EPA 2020);
- *Waste Classification Guidelines, Part 1: Classifying Waste*, November 2014, NSW EPA (EPA 2014);
- *NSW EPA Sampling Design Guidelines,* September 1995 (NSW EPA 1995);
- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, 29 August 2018, ANZAST (ANZAST 2018);
- *Australian and New Zealand Environment and Conservation Council (ANZECC) & Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), 2000* (ANZECC/ARMCANZ 2000); and
- *Guidelines for Managing Risks in Recreational Water*, NHMRC, 2008 (NHMRC 2008).

7.2 Soil Assessment Criteria

On the basis that the site is proposed to be developed into residential housing, consistent with a residential with access to soils land use scenario, soil data has been compared against published guidelines made or endorsed by the NSW EPA, as outlined below and shown in **Table A**:

- NEPC (2013) Health Investigation Levels (HILs)/Health Screening Levels (HSLs): Residential with Access to Soils Land Uses (HIL- A);
- Ecological Investigation Levels (EILs), and Ecological Screening Levels (ESLs) including site-specific EILs where applicable, Residential with Access to Soils Land Use (fine grained soil texture), consistent with NEPC (2013). Site specific EILs were calculated using NEPM 2013 Toolbox[23] for the site based on the average of soil properties (%clay: 12.0, pH: 6.4 and CEC: 14 meq/100g), assessed for four samples (HA01_0.0-0.1, HA06_0.0-0.1, 614-TP03_0-0.1 and 614-TP14_0-0.1) consistent with NEPC (2013);
- HSLs for petroleum hydrocarbons considering potential for vapour intrusion, fine grained soil texture as provided in NEPC (2013); and
- Management limits provided in NEPC (2013).

Where there are no NSW EPA endorsed thresholds for individual COPC the laboratory limit of reporting (LOR) was adopted as an initial screening value for the purpose of this assessment.

EPA (2017) and NEPC (2013) require consideration of aesthetic issues for all land uses. These can include staining, odours, visible ACM, substantial anthropogenic materials. Consideration is given herein to NEPC (2013) guidance on aesthetics in the context of the proposed land uses.

[23] Ecological Investigation Levels – Interactive (Excel) Calculation Spreadsheet, ASC NEPM Toolbox, December 2010

7.3 Surface Water Assessment Criteria

Analysed COPC concentrations in surface water samples were subsequently compared against criteria sourced from the following, to assess water quality for future dam dewatering:

- Default Guideline Values (DGVs) from the *Australia and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG 2018), freshwater systems at 95% level of protection;
- DGV from NEPM (2013) for recreational contact. Recreational criteria (taken as 10 x drinking water criteria consistent with NHMRC 2008) will be applied as human contact with surface water may occur during dewatering; and
- Short term irrigation values adopted from *Australia and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC/ARMCANZ 2000).

8. Quality Assurance/Quality Control Assessment

Detailed discussion of the QAQC assessment of the data set is included in **Appendix J**.

The field sampling and handling procedures across the site produced QA/QC results which indicate that data collected are of an acceptable quality for the DSI objectives.

The NATA certified laboratory reports indicate that the project laboratories were achieving levels of performance within their recommended control limits during the period when the samples from this program were analysed.

On the basis of the results of the field and laboratory QA/QC program, the data are of an acceptable quality upon which to draw conclusions regarding the environmental condition of the site.

9. Investigation Results

9.1 Soil Observations

The lithology encountered at the site during the field works is summarised below, and detailed logs are included in **Appendix H**.

Site surfaces were primarily densely grassed paddocks, and some exposed soil patches. Generally, the site was characterised by a brown clay (topsoil) underlain by natural orange/grey/red mottled clay.

Several areas of filling were observed, predominantly in the levelled areas in the eastern portion of 21 Derriwong Road and 618 Old Northern Road, beneath the workshop/shed and in the dam embankment at 21 Derriwong Road, potential filling associated with the former fruit shop at 626 Old Northern Road, and beneath the residence, behind the retaining wall and within the built-up area at 614 Old Northern Road.

Fill was encountered to a maximum depth of 1.4 m bgs at 614 Old Northern Road and was characterised as brown clay with varying sand/silt/gravel components. Anthropogenic inclusions were noted in fill material at most locations including tiles, plastic, brick, wood, glass, tiles, gravels, wood ash, terracotta and metal. Deeper fill was observed near the residence (614-TP02 to 614-TP04), locations associated with the retaining wall (614-TP05 and 614-TP06) and within the built-up area at the northern boundary of the property (614-TP14 and 614-TP15). Water seepage was observed in fill at 0.8 m bgs at 614-TP03. Natural grey clay was encountered from the surface at 614-TP12.

Orange/grey clay was observed in the three sample locations advanced in the dam walls, with inclusions of ceramics and brick (**Photograph 16**, **Appendix A**). No asbestos was observed at the sample locations, however ACM was observed in the southeast corner of the dam joined to a PVC pipe. ACM was also observed within gravel pavement encountered at TP02, and on the surface of the stockpile north of the dam (FRAG01).

In-situ ACM pipe (150 mm diameter) was identified extending approximately 120 m east from the northern bank of the dam (**Photographs 37** to **39**), and a small section was observed west of the chemical storage shed (**Photograph 40**). The pipes were present in good condition, approximately at 0.5-0.6 m bgs. Trenches were completed at anticipated locations along the pipeline network until ACM pipe was no longer identified (see **Figure 4**). However, there is potential for sections of the pipeline to have historically been replaced by plastic and PVC pipes. As such, the full extent of the pipe network is unknown, and further ACM pipe may be present elsewhere on the site.

Due to the presence of overgrown grass and ground cover, direct inspection of ground surfaces across the site was limited to areas where surface soils were exposed. Nonetheless, with the exception of HA10, TP02 and FRAG01 (see **Figure 3**), visual inspection of ground surfaces in proximity to testpit/hand auger locations did not identify indicators of contamination (odours, staining and/or asbestos) and did not identify potentially unacceptable levels of anthropogenic materials within in situ soils (aesthetic impacts).

Staining was observed at the historic AST location (HA10) and a strong hydrocarbon odour was evident. During the June 2022 inspection, grass cover had been established in the area. No staining or odours were observed at the reported historic location of the AST.

Discarded anthropogenic waste was present on surfaces in isolated locations across the site (see **Figure 2**);

9.2 Soil Analytical Results

The soil and sediment analytical results are summarised in **Tables A** to **D**. Sample locations and exceedances of adopted assessment criteria are presented on **Figures 3** to **5**. Detailed laboratory reports and chain of custody documentation are provided in **Appendix I.**

9.2.1 Heavy Metals

Heavy metals concentrations were reported below the adopted human health and ecological criteria, with the exception of copper in the duplicate (QA01) sample for sample location TP01-0.0-0.1. Copper was reported with a concentration of 240 mg/kg, slightly exceeding the adopted ecological criterion of 220 mg/kg. It is noted copper concentrations in the primary (200 mg/kg) and triplicate (140 mg/kg) samples, and the average of the three (193 mg/kg) were below the adopted EIL.

95% UCL statistical analysis was completed for the reported copper concentrations in fill material across the site, and the calculated mean concentration of 66 mg/kg fell below the ecological criterion. The UCL calculation is included in **Appendix L**.

9.2.2 TRH

TRH concentrations were reported below the adopted human health, ecological and management limits, with the exception of the following:

- HA10:
    - TRH C10-C16 at HA10-0.0-0.1 with a concentration of 7,300 mg/kg, exceeding the adopted management limit of 1,000 mg/kg;
    - TRH C16-C34 at HA10-0.0-0.1 with a concentration of 11,000 mg/kg, exceeding the adopted management limit of 3,500 mg/kg and ecological criterion of 1,300 mg/kg; and
    - TRH F2 at HA10-0.0-0.1 and HA10-0.2-0.3 with respective concentrations of 7,299 mg/kg and 490 mg/kg, exceeding the adopted ecological criterion of 120 mg/kg.
- TP21:
    - TRH C16-C34 at TP21-0.0-0.1 with a concentration of 1,400 mg/kg, exceeding the adopted ecological criterion of 1,300 mg/kg; and
    - It is noted that the LOR was raised to <500 mg/kg above the adopted site assessment criterion for TRH F2 at TP21-0.0-0.1.

95% UCL statistical analysis was completed for the reported TRH C16-C34 concentrations excluding (HA10-0.0-0.1) in fill material across the site, and the calculated mean concentration of 372 mg/kg fell below the ecological criterion. The UCL calculation is included in **Appendix L**.

The elevated LOR for TRH F2 at TP21-0.0-0.1 is not considered to represent a risk to ecological receptors, with all plants in the vicinity of TP21 appearing in good condition. Further, the sample was collected from gravel material, unlikely to be used at the site as a growing medium.

9.2.3 BTEX

BTEX concentrations were reported below the adopted human health and ecological criteria.

9.2.4 PAH

BTEX concentrations were reported below the adopted human health and ecological criteria.

9.2.5 OCPs

OCP concentrations were reported below the adopted human health and ecological criteria.

9.2.6 Asbestos

Asbestos fragments were identified at three locations; associated with a small stockpile, gravel materials, and a pipe segment previously fitted to PVC pipe. All fragments were adjacent to the dam at 618 Old Northern Road. Recovered fragments were submitted to the laboratory for asbestos analysis, and were confirmed to be asbestos containing.

All fragments were observed on the ground surface, or within the top 100mm of the soil profile, exceeding the adopted health-based assessment criterion. Asbestos quantification calculations were also completed (**Table B**) and identified one location (FRAG01) with a concentration of asbestos above the adopted health-based criterion of 0.01 %w/w.

No asbestos was detected in the fragment recovered from 614 Old Northern Road (614-FRAG01).

9.2.7 Preliminary Waste Classification

Soil analytical results were compared to EPA (2014) *Waste Classification Guidelines* General Soil Waste (GSW) and Restricted Solid Waste (RSW) criteria, as presented in **Table B**.

Hydrocarbon impacted material in surface soil associated with the former AST (HA10) exceeded GSW contaminant thresholds, however fall below RSW contaminant thresholds. Therefore, preliminary data suggests the surface soil at HA10 would be classified as RSW. Underlying fill from 0.2m met GSW classification criteria.

All other chemical contaminant concentrations were reported below the GSW contaminant thresholds, with the exception of nickel at five locations and lead at one. Representative leachate analysis by toxicity characteristic leaching potential (TCLP) test (**Table E**) was conducted on sample HA10-0.0-0.1 for nickel and 614-TP03_0-0.1 for lead, and the reported concentrations were below the GSW TCLP1 criterion, with the metal concentrations in soil also below the GSW specific contaminant concentration (SCC1) for assessment when combined with TCLP testing. Preliminary results indicate that should remaining soils require off-site disposal they would be classified as GSW.

Where asbestos impacts are identified, the material would be classified as special (asbestos) waste mixed with GSW.

9.3 Surface Water Observations

Surface water was observed to be clear, with low apparent turbidity. Additionally, no sheens or odours were noted.

9.3.1 Surface Water Analytical Results

The surface water analytical results are summarised in **Table F,** with the following comments in regard to the results:

- All metal analytical concentrations were observed to be below the laboratory limit of reporting (LOR) and/or adopted criteria, with the exception of copper which exceeded the DGV for Freshwater (95%) ecosystem;
- All TRH/ BTEX analytical concentrations were observed to be below the LOR and/or adopted criteria; and
- All OCP analytical concentrations were observed to be below the LOR and adopted criteria.

Based on the test results of the water samples obtained from the dam, it is considered that although the water is of generally good quality, the slight exceedance of copper prevents discharge of the water to local waterways. The preferred option for dewatering of the dam is irrigation of adjacent

lands or dust suppression during future development works. Further sampling and analysis would be required to confirm these results prior to dewatering.

10. Site Characterisation

Section 6.1.5 provides decision rules applicable to assess if contamination is present at the site that may be potentially unacceptable for the proposed development from a health or ecological perspective. Discussion of each of these points is provided in the following sections.

10.1 Are there any unacceptable risks to likely onsite receptors?

Soil and Sediments

All concentrations of COPC analysed in soil samples were reported below the adopted health and ecological site assessment criteria, with the exception of the following:

- Elevated concentrations of hydrocarbons were reported for surface soils (HA10) associated with an AST at 618 Old Northern Road;
- ACM fragments were observed on the surface of a small stockpile and in gravel fill in the carpark, both adjacent to the dam (618 Old Northern Road), and a section of ACM pipe was present in the southeast corner of the dam;
- An ACM fragment was historically observed (ADE 2016a) on the ground surface of fill material utilised to level the ground for the workshop/shed at 21 Derriwong Road; and
- In-situ ACM pipes were identified near the dam at 618 Old Northern Road, extending approximately 120 m east from the northern bank of the dam, and a small section observed west of the chemical storage shed. The full extent of the pipe network is unknown, and further ACM pipe maybe present elsewhere on the site.

The identified hydrocarbon and asbestos impacts present a potential risk to onsite receptors warranting management.

Surface Water

It is considered that the elevated heavy metal concentrations within the dam water do not pose a health risk and can likely be irrigated or used for dust suppression, but cannot be discharged where they may enter downstream receiving waters.

10.2 Are there any issues relating to the local area background concentrations that exceed appropriate criteria?

Issues relating to background soil contamination presenting an unacceptable risk to human and ecological receptors at the site were not identified.

10.3 Are there any chemical mixtures?

There were no potential chemical mixtures identified during the investigation that may pose an unacceptable contamination issue with respect to current and permissible land uses.

10.4 Are there any unacceptable aesthetic issues?

No gross anthropogenic material was encountered within fill material across the site, however ACM fragments at the site represent an unacceptable aesthetic issue.

It is assumed that the large stores of general waste near the residence on 618 Old Northern Road and west of the structure on 626 Old Northern Road are to be removed prior to the commencement of development works. Should they remain, they would pose an unacceptable aesthetic issue.

10.5 Is there any evidence of, or potential for, migration of contaminants from the site?

The potential for migration of contaminants from the site is low, based on the following:

- Site investigations did not identify any significant contamination in soil, sediments or surface water;
- Suspected ACM fragments and insitu pipe were identified in sound condition on the ground. However, over time liberation of fibres from ACM could present a contamination issue with potential to migrate via windblown dust; and
- Groundwater was not assessed during the investigation described herein, however, on the basis of historical and current land use and laboratory results for soil/sediment not reporting gross contamination, it is not considered likely that groundwater is significantly impacted. Therefore, groundwater migration is not considered a contamination risk.

10.6 Is a site management strategy required?

A Remedial Action Plan (RAP) should be developed in accordance with the relevant regulatory requirements to manage identified hydrocarbon and asbestos impacts, and render the site suitable for the proposed land use. An Asbestos Management Plan (AMP) is required to manage the potential asbestos risks in accordance with Work Health and Safety (WHS) Regulation requirements.

Given the potential for ACM and other hazardous building materials to have been used within the site structures (residence, sheds etc), it is recommended that a Hazardous Building Materials Survey (HBMS) be undertaken prior to any demolition of existing site structures.

11. Conclusions and Recommendations

11.1 Conclusions

Based on the finding of this investigation, and subject to limitations in **Section 12**, the following conclusions are made:

- Previous and current environmental investigations have not identified gross or widespread contamination that would preclude development of the site for the proposed residential land use;
- Several areas of filling were observed, predominantly in the levelled areas in the eastern portion of 21 Derriwong Road and 618 Old Northern Road, beneath the workshop/shed and in the dam embankment at 21 Derriwong Road, potential filling associated with the former fruit shop at 626 Old Northern Road, and beneath the residence, behind the retaining wall and within the built-up area at 614 Old Northern Road;
- Management of impacted materials will be required at areas identified by previous and current investigations including the following:
    - Elevated concentrations of hydrocarbons were reported for surface soils (HA10) associated with an AST at 618 Old Northern Road. Preliminary results indicate that the material would be classified as RSW for off-site disposal purposes;
    - ACM fragments were observed during the current investigation on the surface of a small stockpile and in gravel fill in the carpark, both adjacent to the dam (618 Old Northern Road), and a section of ACM pipe present in the southeast corner of the dam;
    - An ACM fragment was historically observed (ADE 2016a) on the ground surface of fill material utilised to level the ground for the workshop/shed at 21 Derriwong Road;
    - In-situ ACM pipe (150 mm diameter) was identified near the dam at 618 Old Northern Road, extending approximately 120 m east from the northern bank of the dam, and a small section was observed west of the chemical storage shed. The pipes were in good condition and at approximately 0.5-0.6 m bgs. Trenches were completed at anticipated locations along the pipeline network until ACM pipe was no longer identified (see **Figure 4**). However, there is potential for sections of the pipeline to have historically been replaced by plastic and PVC pipes. As such, the full extent of the pipe network is unknown, and further ACM pipe maybe present elsewhere on the site.
- Although no asbestos was identified within dam walls during the current investigation, inclusions of brick and ceramics were observed, indicating that the materials are a mixed fill and inclusions of ACM may be present;
- Preliminary data for fill material across the site (excluding hydrocarbon concentrations at HA10) indicates that should remaining soils require off-site disposal they would be classified as GSW. Where asbestos impacts are identified, the material would be classified as special (asbestos) waste mixed with GSW;
- All remaining concentrations of chemical contaminants in soil samples were below the LOR and/or the adopted site criteria for residential with accessible soil land use scenarios;

- Analysis of representative surface water samples indicated that the preferred option for dewatering of the dam is to use the water for irrigation of adjacent lands or dust suppression during development works. Water quality results indicate the dam water should not be discharged to stormwater or local waterways.

In the absence of gross or widespread contamination, the requirements of the DUAP/EPA (1998) *Managing Land Contamination: Planning Guidelines* for this type of rezoning are considered to have been satisfied, namely that the rezoning can proceed, "provided that measures are in place to the ensure that the potential for contamination and the suitability of the land for any proposed use are assessed once detailed proposals are made" (s.4.1.2 DUAP/EPA 1998).

11.2 Recommendations

It is recommended that HBMS be completed for all buildings at the site such that appropriate controls can be implemented to prevent contamination during future demolition. A RAP should also be developed in accordance with the relevant regulatory requirements to address the identified impacts under the proposed land use.

It is further recommended that an AMP is developed for the site to manage potential asbestos risks consistent with WHS Regulations until such time as the risks are removed.

12. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

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

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquiries.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: R01 Rev 0	Date 30/08/2022
Drawn By: YY	Checked By: SG

Scale 1:10,000

0 150 300

metres

Coord. Sys. GDA 1994 MGA Zone 56

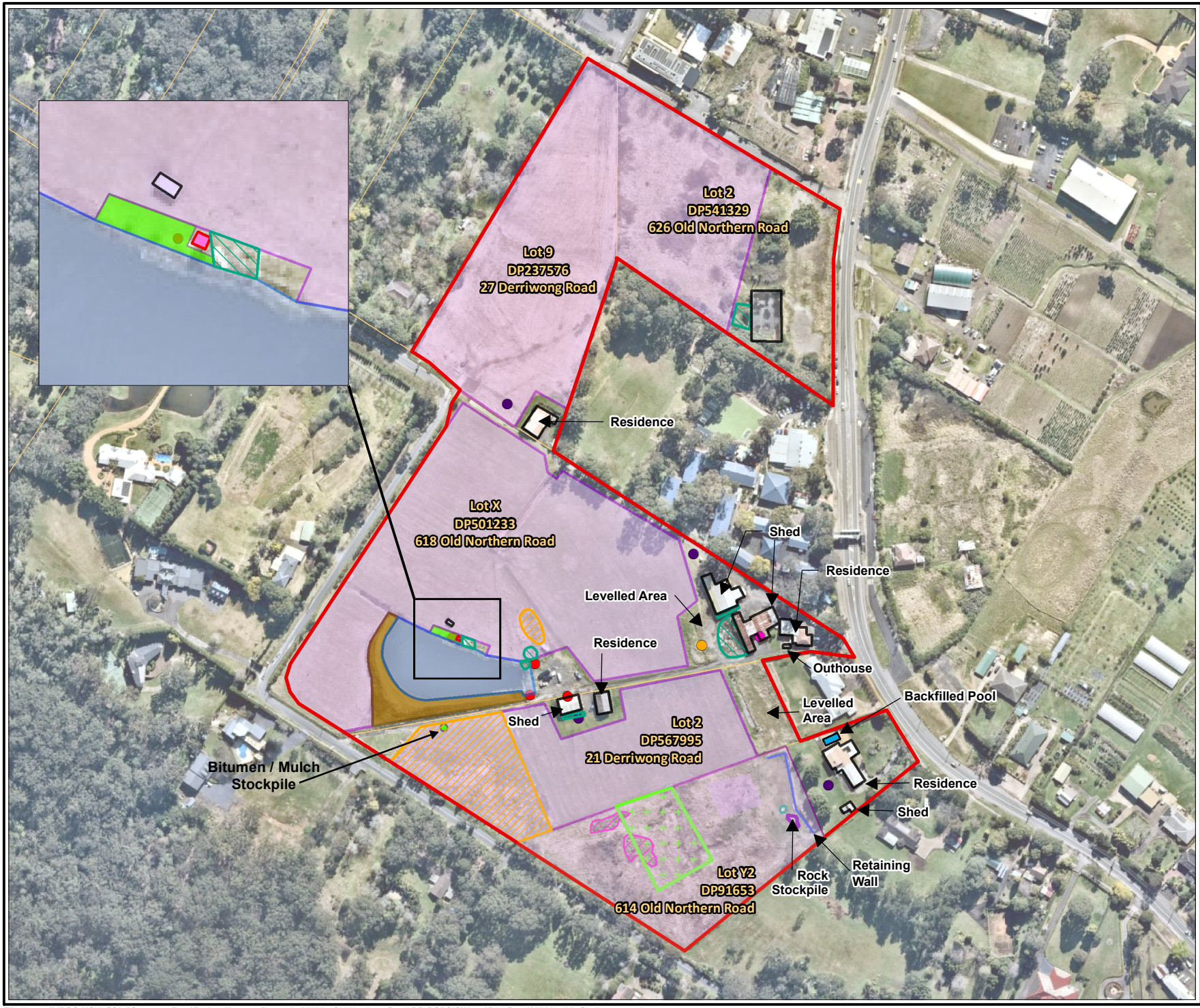
21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road Dural, NSW

SITE LOCATION

FIGURE 1

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\R01 Rev A\60935_01_SiteLocation.mxd

Reference: © OpenStreetMap (and) contributors, CC-BY-SA



Legend

- Approximate Site Boundary
- Cadastre (DFSI, 2021)

Areas of Environmental Concern

- Chemical Storage
- Stockpile
- Agricultural
- Anthropogenic
- Dam Wall
- Dam
- Backfilled Pool
- Retaining Wall
- Rock Stockpile
- Rock Placement Area
- Historical Orchards
- Former Mulch Stockpile Area

Site Features

- Structure
- ACM
- Staining (Former AST)
- Drums
- Septic Tanks

JBS&G

Job No: 60935

Client: Legacy Properties

Version: R01 Rev 0	Date 2/09/2022
Drawn By: YY	Checked By: SG

Scale 1:3,600

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road Dural, NSW

SITE LAYOUT AND AREAS OF ENVIRONMENTAL CONCERN

FIGURE 2

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\R01 Rev A\60935_02_SiteLayout.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 20220824)

Legend

- Approximate Site Boundary

Sample Location

- Potential ACM Fragment
- Test Pit
- Hand Auger
- Sediment
- Sediment / Water

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: R01 Rev 0	Date 1/09/2022
Drawn By: YY	Checked By: SG
Scale 1:3,800	

0 60 120
metres

Coord. Sys. GDA 1994 MGA Zone 56

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road Dural, NSW

SAMPLE LOCATIONS

FIGURE 3

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\R01 Rev A\60935_03_SampleLocations.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 20220824)

Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Pipework

- ACM Pipe
- Non ACM Pipe (approx. direction)
- Trench
- Trench Location

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: R01 Rev 0	Date 1/09/2022
Drawn By: JA	Checked By: SG
Scale 1:850	

0 10 20
metres

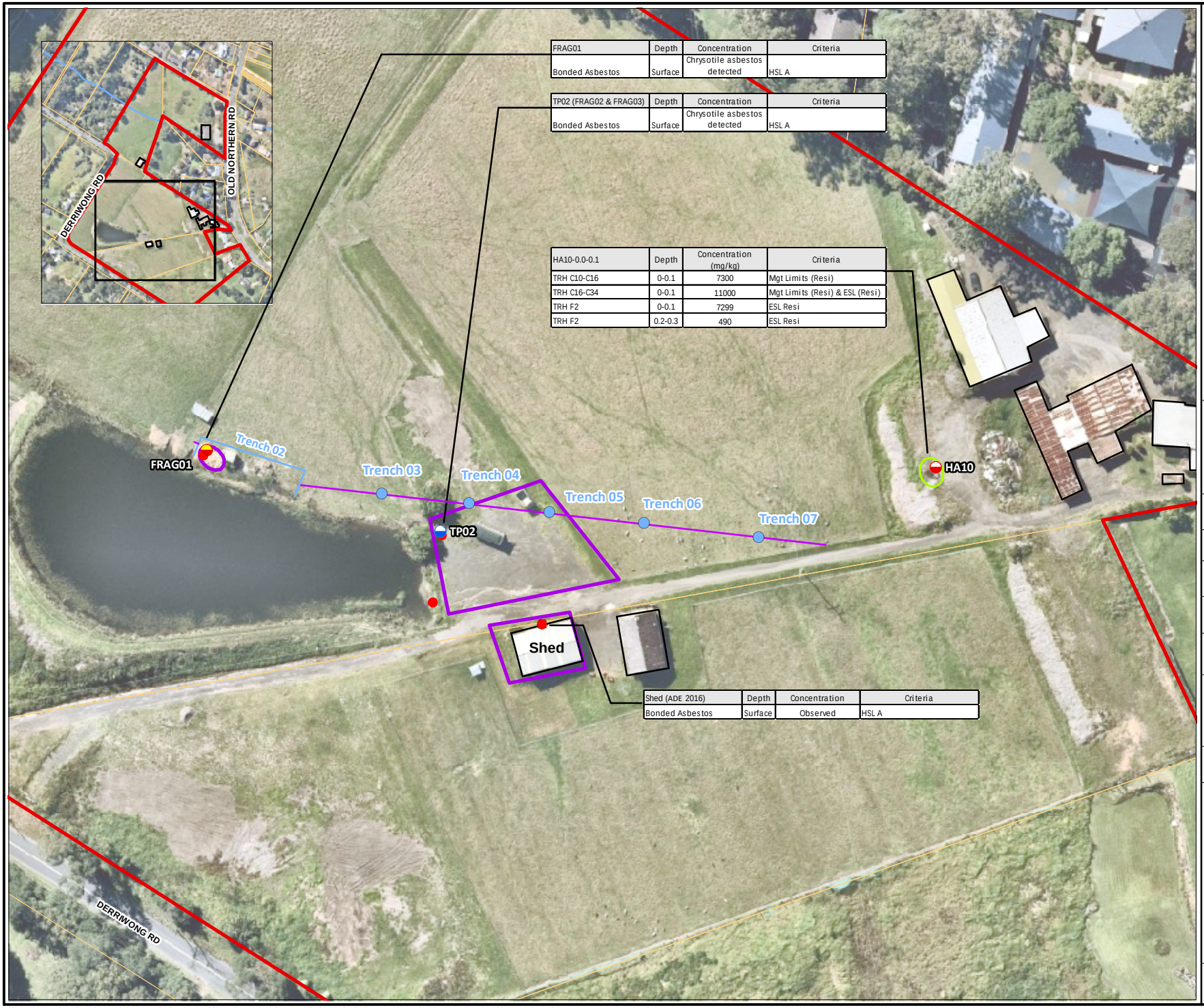
Coord. Sys. GDA 1994 MGA Zone 56

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road, Dural, NSW

IRRIGATION PIPE INVESTIGATION TRENCHES

FIGURE 4

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\L01 Rev 0\60935_05_Trench.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 10/04/2021)



Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)
- Structure

Remedial Extents

- Identified Hydrocarbon Impacted Area Preliminary Assessment
- Identified Asbestos Impacted Area Preliminary Assessment
- ACM Pipe

Sample Location

- Hand Auger
- Surface Soil
- Test Pit
- ACM Observed
- Trench
- Trench Location

JBS&G

Job No: 60935

Client: Legacy Properties

Version: R01 Rev 0	Date 1/09/2022
Drawn By: RF	Checked By: SG

Scale 1:1,250

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

21 and 27 Derriwong Road, and 614, 618 and 626 Old Northern Road, Dural, NSW

EXCEEDANCES

FIGURE 5

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\Figures\Misc\20210528_SiteLayout_Features\60935_01_SiteLayout_Features.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 10/04/2021)

Data Summary Tables

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Metals & Metalloids								TRHs (NEPC 2013)							BTEXN					
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space				100		420	220	1100		210	600													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil														1300	5600		180	120	65	105	125			45
NEPM 2013 Table 1A(1) HILs Res A Soil				100	20	100	6000	300	40	400	7400													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																	50	280	0.7	480	NL			110
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil												800	1000	3500	10000									
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																								
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**																					
HA01-0.0-0.1	795812	13/05/2021	Agriculture	5.2	<0.4	14	130	18	-	5.2	39	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA02-0.0-0.1	795812	13/05/2021	Agriculture	8.5	<0.4	24	93	25	<0.1	8.3	34	-	-	-	-	-	-	-	-	-	-	-	-	-
HA03-0.0-0.1	795812	13/05/2021	Agriculture	7.5	<0.4	36	160	25	-	8	57	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA04-0.0-0.1	795812	13/05/2021	Agriculture	5.7	<0.4	33	170	44	-	6.4	62	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA05-0.0-0.1	795812	13/05/2021	Agriculture	6.7	<0.4	19	39	13	<0.1	<5	26	-	-	-	-	-	-	-	-	-	-	-	-	-
HA06-0.0-0.1	795812	13/05/2021	Agriculture	8.7	<0.4	25	26	30	-	9.1	42	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA07-0.0-0.1	795812	13/05/2021	Agriculture	22	<0.4	42	120	26	-	<5	58	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA08-0.0-0.1	795812	13/05/2021	Agriculture	7.8	<0.4	16	80	22	<0.1	<5	51	-	-	-	-	-	-	-	-	-	-	-	-	-
HA09-0.0-0.1	795812	13/05/2021	Agriculture	6.4	<0.4	12	21	38	<0.1	5.1	60	-	-	-	-	-	-	-	-	-	-	-	-	-
HA10-0.0-0.1	795812	13/05/2021	AST	<2	<0.4	38	48	<5	-	160	130	120	7300	11,000	<500	18,300	120	7298.9	<0.1	<0.1	0.7	0.6	1.3	1.9
HA10-0.2-0.3	795812	13/05/2021	AST	8.6	<0.4	15	24	22	<0.1	6.9	41	<20	490	390	<100	880	<20	490	<0.1	<0.1	<0.1	0.1	<0.2	<0.3
HA11-0.0-0.1	795812	14/05/2021	Agriculture	3.5	<0.4	21	130	13	<0.1	<5	36	-	-	-	-	-	-	-	-	-	-	-	-	-
HA12-0.0-0.1	795812	14/05/2021	Fill	9.6	<0.4	15	26	26	-	<5	23	<20	<50	130	<100	130	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP01-0.0-0.1	795812	14/05/2021	Fill	7.3	0.4	20	200	22	-	9.3	83	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA01	269307	14/05/2021	Fill	7	0.4	16	240	19	<0.1	9	83	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3
QC01	795812	14/05/2021	Fill	10	<0.4	26	140	23	-	7.1	55	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP02-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery/Fill	12	<0.4	22	16	22	<0.1	5.1	33	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG02	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	Fill	5.9	<0.4	23	22	25	<0.1	22	40	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	Septic tanks	6.1	<0.4	31	20	28	-	26	29	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP05-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	<2	<0.4	47	68	5.2	-	170	84	<20	<50	200	<100	200	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP06-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	4.8	<0.4	23	48	24	<0.1	48	88	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	Fill	19	<0.4	19	53	25	-	23	91	<20	<50	190	<100	190	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP08-0.0-0.1	795812	14/05/2021	Fill	6.5	<0.4	11	23	18	<0.1	5.9	33	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	<2	<0.4	47	53	<5	<0.1	200	89	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	Septic tanks	5.4	<0.4	13	63	36	-	<5	39	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP11-0.0-0.1	795812	14/05/2021	Fill	3.5	<0.4	8.3	59	9.1	<0.1	<5	30	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	Fill	6.1	<0.4	24	35	22	<0.1	31	140	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	Fill	7.2	<0.4	11	16	19	-	<5	12	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP14-0.0-0.1	795812	14/05/2021	Fill	11	<0.4	26	14	20	<0.1	10	21	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	5.7	<0.4	16	170	19	-	6.1	68	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA03	269307	14/05/2021		6	<0.4	16	160	17	<0.1	6	43	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021		5	<0.4	15	160	18	<0.1	6.1	48	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16-0.2-0.3	795812	14/05/2021	Fill	13	<0.4	22	16	35	-	8.9	35	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP17-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	7.7	<0.4	15	86	24	-	5.6	38	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP18-0.0-0.1	795812	14/05/2021	Fill	6.6	<0.4	14	39	17	<0.1	<5	34	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	<2	<0.4	30	35	16	<0.1	44	83	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	Fill	6.2	<0.4	15	53	42	-	6.1	150	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA05	269307	14/05/2021		<4	<0.4	7	32	9	<0.1	2	32	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<3
QC05	795812	14/05/2021		5.4	<0.4	12	47	29	-	<5	62	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP20-0.9-1.0	795812	14/05/2021	Fill	7.1	<0.4	7.5	60	19	<0.1	<5	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	<2	<0.4	14	36	19	-	20	31	<20	<500	1400	<1000	1400	<20	<500	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP22-0.0-0.1	795812	14/05/2021	Fill	8	<0.4	16	29	61	<0.1	15	83	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

	PAH																		Polychlorinated Biphenyls							
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Carcinogenic PAHs as B(a)P TEQ	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space															170											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil					0.7																					
NEPM 2013 Table 1A(1) HILs Res A Soil						3												300								1[#7]
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m															5											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																										
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																										

Sample Name	Lab Report Number	Date	Targeted AEC																								
HA01-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA02-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA03-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA04-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA05-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA06-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA07-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA08-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA09-0.0-0.1	795812	13/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA10-0.0-0.1	795812	13/05/2021	AST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	AST	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
HA11-0.0-0.1	795812	14/05/2021	Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HA12-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP01-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA01	269307	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP02-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery/Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
FRAG02	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP08-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP14-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
QA03	269307	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16-0.2-0.3	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP17-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA05	269307	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QC05	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP20-0.9-1.0	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Organochlorine Pesticides																					
				4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space													180												
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																									
NEPM 2013 Table 1A(1) HILs Res A Soil											6	50			240				10			6		300	20	10
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																									
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																									
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**																						
HA01-0.0-0.1	795812	13/05/2021	Agriculture	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA02-0.0-0.1	795812	13/05/2021	Agriculture	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA03-0.0-0.1	795812	13/05/2021	Agriculture	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA04-0.0-0.1	795812	13/05/2021	Agriculture	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA05-0.0-0.1	795812	13/05/2021	Agriculture	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA06-0.0-0.1	795812	13/05/2021	Agriculture	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA07-0.0-0.1	795812	13/05/2021	Agriculture	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA08-0.0-0.1	795812	13/05/2021	Agriculture	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA09-0.0-0.1	795812	13/05/2021	Agriculture	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA10-0.0-0.1	795812	13/05/2021	AST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	AST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA11-0.0-0.1	795812	14/05/2021	Agriculture	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA12-0.0-0.1	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP01-0.0-0.1	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
QA01	269307	14/05/2021	Fill	<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	-	<0.1	<0.1	<0.1	-	<0.1
QC01	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP02-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery/Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
FRAG02	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP08-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP14-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA03	269307	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16-0.2-0.3	795812	14/05/2021	Fill	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP17-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
QA05	269307	14/05/2021		<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	-	<0.1	<0.1	<0.1	-	<0.1
QC05	795812	14/05/2021		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP20-0.9-1.0	795812	14/05/2021	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP21-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Asbestos								
				Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Respirable Fibres - Comment
				g	g	g	% (w/w)	% (w/w)	g	Comment	Comment	Comment	Comment
EQL													
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil													
NEPM 2013 Table 1A(1) HILs Res A Soil													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil													
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil							0.01	0.001					
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**										
HA01-0.0-0.1	795812	13/05/2021	Agriculture	593	0	0	0	0	0	Nil	Nil	Nil	Nil
HA02-0.0-0.1	795812	13/05/2021	Agriculture	553	0	0	0	0	0	Nil	Nil	Nil	Nil
HA03-0.0-0.1	795812	13/05/2021	Agriculture	525	0	0	0	0	0	Nil	Nil	Nil	Nil
HA04-0.0-0.1	795812	13/05/2021	Agriculture	478	0	0	0	0	0	Nil	Nil	Nil	Nil
HA05-0.0-0.1	795812	13/05/2021	Agriculture	623	0	0	0	0	0	Nil	Nil	Nil	Nil
HA06-0.0-0.1	795812	13/05/2021	Agriculture	424	0	0	0	0	0	Nil	Nil	Nil	Nil
HA07-0.0-0.1	795812	13/05/2021	Agriculture	492	0	0	0	0	0	Nil	Nil	Nil	Nil
HA08-0.0-0.1	795812	13/05/2021	Agriculture	566	0	0	0	0	0	Nil	Nil	Nil	Nil
HA09-0.0-0.1	795812	13/05/2021	Agriculture	366	0	0	0	0	0	Nil	Nil	Nil	Nil
HA10-0.0-0.1	795812	13/05/2021	AST	-	-	-	-	-	-	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	AST	-	-	-	-	-	-	-	-	-	-
HA11-0.0-0.1	795812	14/05/2021	Agriculture	546	0	0	0	0	0	Nil	Nil	Nil	Nil
HA12-0.0-0.1	795812	14/05/2021	Fill	421	0	0	0	0	0	Nil	Nil	Nil	Nil
TP01-0.0-0.1	795812	14/05/2021	Fill	689	0	0	0	0	0	Nil	Nil	Nil	Nil
QA01	269307	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-
QC01	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-
TP02-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery/Fill	-	-	-	-	-	-	-	-	-	-
FRAG02	795812	14/05/2021		10	0	0	0	0	0	Chrysotile and amosite asbestos detected	Nil	Nil	Nil
FRAG03	795812	14/05/2021		6	0	0	0	0	0	Chrysotile and amosite asbestos detected	Nil	Nil	Nil
TP03-0.0-0.1	795812	14/05/2021	Fill	768	0	0	0	0	0	Nil	Nil	Nil	Nil
TP04-0.0-0.1	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	Fill	941	0	0	0	0	0	Nil	Nil	Nil	Nil
TP08-0.0-0.1	795812	14/05/2021	Fill	741	0	0	0	0	0	Nil	Nil	Nil	Nil
TP09-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	Septic tanks	-	-	-	-	-	-	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	Fill	450	0	0	0	0	0	Nil	Nil	Nil	Nil
TP13-0.2-0.3	795812	14/05/2021	Fill	782	0	0	0	0	0	Nil	Nil	Nil	Nil
TP14-0.0-0.1	795812	14/05/2021	Fill	713	0	0	0	0	0	Nil	Nil	Nil	Nil
TP15-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
QA03	269307	14/05/2021		-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021		20	0	0	0	0	0	Chrysotile asbestos detected	Nil	Nil	Nil
TP16-0.2-0.3	795812	14/05/2021	Fill	758	0	0	0	0	0	Nil	Nil	Nil	Nil
TP17-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	Fill	552	0	0	0	0	0	Nil	Nil	Nil	-
TP19-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	Fill	652	0	0	0	0	0	Nil	Nil	Nil	-
QA05	269307	14/05/2021		-	-	-	-	-	-	-	-	-	-
QC05	795812	14/05/2021		-	-	-	-	-	-	-	-	-	-
TP20-0.9-1.0	795812	14/05/2021	Fill	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	Maintenance of farm machinery	-	-	-	-	-	-	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	Fill	592	0	0	0	0	0	Nil	Nil	Nil	Nil

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Metals & Metalloids								TRHs (NEPC 2013)							BTEXN					
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space				100		420	220	1100		210	600													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil														1300	5600		180	120	65	105	125			45
NEPM 2013 Table 1A(1) HILs Res A Soil				100	20	100	6000	300	40	400	7400													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																	50	280	0.7	480	NL			110
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil												800	1000	3500	10000									
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																								
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**																					
614 -FRAG01	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	Fill	3.5	0.8	15	15	24	<0.1	6.2	26	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP02_0-0.1	917317	23/08/2022	Fill - pool	9.2	<0.4	18	14	43	<0.1	6.2	55	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022		7.1	<0.4	21	41	120	0.2	8.1	160	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA20220823	303939	23/08/2022	Fill	5	<0.4	16	38	70	0.1	5	110	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1
QC20220823	917317	23/08/2022		8.5	0.7	19	30	62	<0.1	9.1	100	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP03_0.4-0.5	917317	23/08/2022	Fill	6.8	1.6	22	28	25	<0.1	9.3	23	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	Fill	13	<0.4	21	27	22	<0.1	<5	14	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP05_0.4-0.5	917317	23/08/2022	Fill - retaining wall	6.5	<0.4	11	19	20	<0.1	<5	16	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP06_0-0.1	917317	23/08/2022	Fill - retaining wall	6.4	<0.4	11	12	15	<0.1	<5	33	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	Fill	15	<0.4	15	23	19	<0.1	5.5	34	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP08_0-0.1	917317	23/08/2022	Fill - Charring beneath general waste pile	8.4	0.5	23	44	51	<0.1	7.6	250	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	Fill	11	<0.4	17	23	22	<0.1	5.9	33	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP11_0-0.1	917317	23/08/2022	Fill	10	<0.4	13	5.5	31	<0.1	<5	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	Agriculture/Fill	3.6	<0.4	6.8	<5	21	<0.1	<5	<5	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP13_0.2-0.3	917317	23/08/2022	Agriculture/Fill	<2	<0.4	5.9	<5	21	<0.1	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	Fill	8.7	<0.4	20	9.5	24	<0.1	8.3	38	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP14_0.4-0.5	917317	23/08/2022	Fill	11	0.5	30	27	66	<0.1	14	100	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	Fill	9.8	<0.4	22	5.3	24	<0.1	<5	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	Fill	12	<0.4	40	17	32	<0.1	12	31	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	Fill	6.9	<0.4	17	17	23	<0.1	10	25	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3

Data Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				PAH																	Polychlorinated Biphenyls							
				Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Carcinogenic PAHs as B(a)P TEQ	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space																		170											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil								0.7																					
NEPM 2013 Table 1A(1) HILs Res A Soil									3												300								1[#7]
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																		5											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																													
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																													
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**																										
614 -FRAG01	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP02_0-0.1	917317	23/08/2022	Fill - pool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022		<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QA20220823	303939	23/08/2022	Fill	<0.1	<0.1	<0.1	<0.1	<0.05	0.086[#1]	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
QC20220823	917317	23/08/2022		<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP03_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP05_0.4-0.5	917317	23/08/2022	Fill - retaining wall	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP06_0-0.1	917317	23/08/2022	Fill - retaining wall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP08_0-0.1	917317	23/08/2022	Fill - Charring beneath general waste pile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP11_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	Agriculture/Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP13_0.2-0.3	917317	23/08/2022	Agriculture/Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
614-TP14_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Data Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Organochlorine Pesticides																					
				4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space													180												
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																									
NEPM 2013 Table 1A(1) HILs Res A Soil											6	50			240				10			6		300	20	10
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																									
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil																									
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**																						
614 -FRAG01	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP02_0-0.1	917317	23/08/2022	Fill - pool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
QA20220823	303939	23/08/2022	Fill	<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	-	<0.1	<0.1	<0.1	-	<0.1
QC20220823	917317	23/08/2022		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP03_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP05_0.4-0.5	917317	23/08/2022	Fill - retaining wall	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP06_0-0.1	917317	23/08/2022	Fill - retaining wall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP08_0-0.1	917317	23/08/2022	Fill - Charring beneath general waste pile	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.2	1.2	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP11_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	Agriculture/Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP13_0.2-0.3	917317	23/08/2022	Agriculture/Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP14_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05

Data Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table A: Soil Data Summary
Project Number: 60935
Project Name: Dural DD DSI

				Asbestos								
				Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Respirable Fibres - Comment
				g	g	g	% (w/w)	% (w/w)	g	Comment	Comment	Comment	Comment
EQL													
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil													
NEPM 2013 Table 1A(1) HILs Res A Soil													
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil													
NEPM 2013 Table 7 Res A Soil HSL for Asbestos in Soil							0.01	0.001					
Sample Name	**Lab Report Number**	**Date**	**Targeted AEC**										
614 -FRAG01	917317	23/08/2022	Fill	78	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP01_0.2-0.3	917317	23/08/2022	Fill	518	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP02_0-0.1	917317	23/08/2022	Fill - pool	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022	Fill	469	0	0	0	0	0	Nil	Nil	Nil	Nil
QA20220823	303939	23/08/2022		-	-	-	-	-	-	-	-	-	-
QC20220823	917317	23/08/2022		-	-	-	-	-	-	-	-	-	-
614-TP03_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	Fill	528	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP04_0.9-1.0	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP05_0.4-0.5	917317	23/08/2022	Fill - retaining wall	573	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP06_0-0.1	917317	23/08/2022	Fill - retaining wall	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	Fill	593	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP08_0-0.1	917317	23/08/2022	Fill - Charring beneath general waste pile	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	Fill	431	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP09_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP11_0-0.1	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	Agriculture/Fill	657	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP13_0.2-0.3	917317	23/08/2022	Agriculture/Fill	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	Fill	694	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP14_0.4-0.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	Fill	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	Fill	472	0	0	0	0	0	Nil	Nil	Nil	Nil

Data Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table B: Asbestos Quantification Results

Project Name: Dural

Project Number: 60935

HSL A Criterion: **0.01 %w/w**

0 %w/w in top 100mm

Sample ID	% Asbestos content	ACM Weight (kg)	Soil Volume (L)	Soil Density (kg/L)	%w/w ACM
FRAG01	15	0.02	10	1.65	**0.018**
FRAG02	15	0.01	10	1.65	**0.009**
FRAG03	15	0.006	10	1.65	**0.005**

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

			Metals & Metalloids								TPHs (NEPC 1999)					BTEXN					
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	0.1	0.1	0.1	0.1	0.2	0.3
NSW 2014 General Solid Waste CT1 (Without Leachate)			100	20	100		100	4	40		650				10000	10	288	600			1000
NSW 2014 General Solid Waste SCC1 (With leachate)			500	100	1900		1500	50	1050		650				10000	18	518	1080			1800
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)			400	80	400		400	16	160		2600				40000	40	1152	2400			4000
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)			2000	400	7600		6000	200	4200		2600				40000	72	2073	4320			7200
Sample Name	**Lab Report Number**	**Date**																			
HA01-0.0-0.1	795812	13/05/2021	5.2	<0.4	14	130	18	-	5.2	39	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA02-0.0-0.1	795812	13/05/2021	8.5	<0.4	24	93	25	<0.1	8.3	34	-	-	-	-	-	-	-	-	-	-	-
HA03-0.0-0.1	795812	13/05/2021	7.5	<0.4	36	160	25	-	8	57	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA04-0.0-0.1	795812	13/05/2021	5.7	<0.4	33	170	44	-	6.4	62	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA05-0.0-0.1	795812	13/05/2021	6.7	<0.4	19	39	13	<0.1	<5	26	-	-	-	-	-	-	-	-	-	-	-
HA06-0.0-0.1	795812	13/05/2021	8.7	<0.4	25	26	30	-	9.1	42	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA07-0.0-0.1	795812	13/05/2021	22	<0.4	42	120	26	-	<5	58	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
HA08-0.0-0.1	795812	13/05/2021	7.8	<0.4	16	80	22	<0.1	<5	51	-	-	-	-	-	-	-	-	-	-	-
HA09-0.0-0.1	795812	13/05/2021	6.4	<0.4	12	21	38	<0.1	5.1	60	-	-	-	-	-	-	-	-	-	-	-
HA10-0.0-0.1	795812	13/05/2021	<2	<0.4	38	48	<5	-	160	130	30	3900	14,000	<250	17,900	<0.1	<0.1	0.7	0.6	1.3	1.9
HA10-0.2-0.3	795812	13/05/2021	8.6	<0.4	15	24	22	<0.1	6.9	41	<20	170	590	60	820	<0.1	<0.1	<0.1	0.1	<0.2	<0.3
HA11-0.0-0.1	795812	14/05/2021	3.5	<0.4	21	130	13	<0.1	<5	36	-	-	-	-	-	-	-	-	-	-	-
HA12-0.0-0.1	795812	14/05/2021	9.6	<0.4	15	26	26	-	<5	23	<20	<20	64	52	116	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP01-0.0-0.1	795812	14/05/2021	7.3	0.4	20	200	22	-	9.3	83	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA01	269307	14/05/2021	7	0.4	16	240	19	<0.1	9	83	<25	<50	<100	<100	-	<0.2	<0.5	<1	<1	<2	<3
QC01	795812	14/05/2021	10	<0.4	26	140	23	-	7.1	55	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP02-0.0-0.1	795812	14/05/2021	12	<0.4	22	16	22	<0.1	5.1	33	-	-	-	-	-	-	-	-	-	-	-
FRAG02	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	5.9	<0.4	23	22	25	<0.1	22	40	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	6.1	<0.4	31	20	28	-	26	29	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP05-0.0-0.1	795812	14/05/2021	<2	<0.4	47	68	5.2	-	170	84	<20	<20	140	<50	140	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP06-0.0-0.1	795812	14/05/2021	4.8	<0.4	23	48	24	<0.1	48	88	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	19	<0.4	19	53	25	-	23	91	<20	<20	97	<50	97	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP08-0.0-0.1	795812	14/05/2021	6.5	<0.4	11	23	18	<0.1	5.9	33	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	<2	<0.4	47	53	<5	<0.1	200	89	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	5.4	<0.4	13	63	36	-	<5	39	<20	<20	78	<50	78	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP11-0.0-0.1	795812	14/05/2021	3.5	<0.4	8.3	59	9.1	<0.1	<5	30	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	6.1	<0.4	24	35	22	<0.1	31	140	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	7.2	<0.4	11	16	19	-	<5	12	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP14-0.0-0.1	795812	14/05/2021	11	<0.4	26	14	20	<0.1	10	21	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	5.7	<0.4	16	170	19	-	6.1	68	<20	<20	<50	65	65	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA03	269307	14/05/2021	6	<0.4	16	160	17	<0.1	6	43	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021	5	<0.4	15	160	18	<0.1	6.1	48	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	PAH																		PCBs
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Carcinogenic PAHs as B(a)P TEQ	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	PCBs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
NSW 2014 General Solid Waste CT1 (Without Leachate)					0.8														<50
NSW 2014 General Solid Waste SCC1 (With leachate)					10														<50
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)					3.2														<50
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)					23														<50
Sample Name	**Lab Report Number**	**Date**																		
HA01-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
HA02-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
HA03-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
HA04-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
HA05-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
HA06-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
HA07-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
HA08-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
HA09-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
HA10-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
HA11-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
HA12-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP01-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
QA01	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<0.1
QC01	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP02-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
FRAG02	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP08-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP14-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
QA03	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	Organochlorine Pesticides																					
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05
NSW 2014 General Solid Waste CT1 (Without Leachate)																							
NSW 2014 General Solid Waste SCC1 (With leachate)																							
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)																							
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)																							
Sample Name	**Lab Report Number**	**Date**																					
HA01-0.0-0.1	795812	13/05/2021	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA02-0.0-0.1	795812	13/05/2021	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA03-0.0-0.1	795812	13/05/2021	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA04-0.0-0.1	795812	13/05/2021	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA05-0.0-0.1	795812	13/05/2021	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA06-0.0-0.1	795812	13/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA07-0.0-0.1	795812	13/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA08-0.0-0.1	795812	13/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA09-0.0-0.1	795812	13/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA10-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA11-0.0-0.1	795812	14/05/2021	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
HA12-0.0-0.1	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP01-0.0-0.1	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
QA01	269307	14/05/2021	<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	-	<0.1	<0.1	<0.1	-
QC01	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP02-0.0-0.1	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
FRAG02	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP08-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13-0.2-0.3	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP14-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA03	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	Asbestos									
	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Respirable Fibres - Comment
	g	g	g	% (w/w)	% (w/w)	g	Comment	Comment	Comment	Comment
EQL										
NSW 2014 General Solid Waste CT1 (Without Leachate)										
NSW 2014 General Solid Waste SCC1 (With leachate)										
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)										
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)										
Sample Name	**Lab Report Number**	**Date**								
HA01-0.0-0.1	795812	13/05/2021	593	0	0	0	0	0	Nil	Nil	Nil	Nil
HA02-0.0-0.1	795812	13/05/2021	553	0	0	0	0	0	Nil	Nil	Nil	Nil
HA03-0.0-0.1	795812	13/05/2021	525	0	0	0	0	0	Nil	Nil	Nil	Nil
HA04-0.0-0.1	795812	13/05/2021	478	0	0	0	0	0	Nil	Nil	Nil	Nil
HA05-0.0-0.1	795812	13/05/2021	623	0	0	0	0	0	Nil	Nil	Nil	Nil
HA06-0.0-0.1	795812	13/05/2021	424	0	0	0	0	0	Nil	Nil	Nil	Nil
HA07-0.0-0.1	795812	13/05/2021	492	0	0	0	0	0	Nil	Nil	Nil	Nil
HA08-0.0-0.1	795812	13/05/2021	566	0	0	0	0	0	Nil	Nil	Nil	Nil
HA09-0.0-0.1	795812	13/05/2021	366	0	0	0	0	0	Nil	Nil	Nil	Nil
HA10-0.0-0.1	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-
HA10-0.2-0.3	795812	13/05/2021	-	-	-	-	-	-	-	-	-	-
HA11-0.0-0.1	795812	14/05/2021	546	0	0	0	0	0	Nil	Nil	Nil	Nil
HA12-0.0-0.1	795812	14/05/2021	421	0	0	0	0	0	Nil	Nil	Nil	Nil
TP01-0.0-0.1	795812	14/05/2021	689	0	0	0	0	0	Nil	Nil	Nil	Nil
QA01	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-
QC01	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP02-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
FRAG02	795812	14/05/2021	10	0	0	0	0	0	Chrysotile and amosite asbestos detected	Nil	Nil	Nil
FRAG03	795812	14/05/2021	6	0	0	0	0	0	Chrysotile and amosite asbestos detected	Nil	Nil	Nil
TP03-0.0-0.1	795812	14/05/2021	768	0	0	0	0	0	Nil	Nil	Nil	Nil
TP04-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP05-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP06-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP07-0.0-0.1	795812	14/05/2021	941	0	0	0	0	0	Nil	Nil	Nil	Nil
TP08-0.0-0.1	795812	14/05/2021	741	0	0	0	0	0	Nil	Nil	Nil	Nil
TP09-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP10-0.4-0.5	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP11-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP12-0.9-1.0	795812	14/05/2021	450	0	0	0	0	0	Nil	Nil	Nil	Nil
TP13-0.2-0.3	795812	14/05/2021	782	0	0	0	0	0	Nil	Nil	Nil	Nil
TP14-0.0-0.1	795812	14/05/2021	713	0	0	0	0	0	Nil	Nil	Nil	Nil
TP15-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
QA03	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-
QC03	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
FRAG01	795812	14/05/2021	20	0	0	0	0	0	Chrysotile asbestos detected	Nil	Nil	Nil

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

			Metals & Metalloids								TPHs (NEPC 1999)					BTEXN				
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	0.1	0.1	0.1	0.1	0.2	0.3
NSW 2014 General Solid Waste CT1 (Without Leachate)			100	20	100		100	4	40		650				10000	10	288	600			1000
NSW 2014 General Solid Waste SCC1 (With leachate)			500	100	1900		1500	50	1050		650				10000	18	518	1080			1800
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)			400	80	400		400	16	160		2600				40000	40	1152	2400			4000
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)			2000	400	7600		6000	200	4200		2600				40000	72	2073	4320			7200
Sample Name	**Lab Report Number**	**Date**																			
TP16-0.2-0.3	795812	14/05/2021	13	<0.4	22	16	35	-	8.9	35	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP17-0.0-0.1	795812	14/05/2021	7.7	<0.4	15	86	24	-	5.6	38	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP18-0.0-0.1	795812	14/05/2021	6.6	<0.4	14	39	17	<0.1	<5	34	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	<2	<0.4	30	35	16	<0.1	44	83	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	6.2	<0.4	15	53	42	-	6.1	150	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA05	269307	14/05/2021	<4	<0.4	7	32	9	<0.1	2	32	<25	<50	<100	<100	-	<0.2	<0.5	<1	<1	<2	<3
QC05	795812	14/05/2021	5.4	<0.4	12	47	29	-	<5	62	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP20-0.9-1.0	795812	14/05/2021	7.1	<0.4	7.5	60	19	<0.1	<5	7.8	-	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	<2	<0.4	14	36	19	-	20	31	<20	<200	<500	<500	<500	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP22-0.0-0.1	795812	14/05/2021	8	<0.4	16	29	61	<0.1	15	83	-	-	-	-	-	-	-	-	-	-	-
614 -FRAG01	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	3.5	0.8	15	15	24	<0.1	6.2	26	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP02_0-0.1	917317	23/08/2022	9.2	<0.4	18	14	43	<0.1	6.2	55	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022	7.1	<0.4	21	41	120	0.2	8.1	160	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
QA20220823	303939	23/08/2022	5	<0.4	16	38	70	0.1	5	110	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	<2	<1
QC20220823	917317	23/08/2022	8.5	0.7	19	30	62	<0.1	9.1	100	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP03_0.4-0.5	917317	23/08/2022	6.8	1.6	22	28	25	<0.1	9.3	23	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	13	<0.4	21	27	22	<0.1	<5	14	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP05_0.4-0.5	917317	23/08/2022	6.5	<0.4	11	19	20	<0.1	<5	16	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP06_0-0.1	917317	23/08/2022	6.4	<0.4	11	12	15	<0.1	<5	33	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	15	<0.4	15	23	19	<0.1	5.5	34	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP08_0-0.1	917317	23/08/2022	8.4	0.5	23	44	51	<0.1	7.6	250	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	11	<0.4	17	23	22	<0.1	5.9	33	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP11_0-0.1	917317	23/08/2022	10	<0.4	13	5.5	31	<0.1	<5	7.9	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	3.6	<0.4	6.8	<5	21	<0.1	<5	<5	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP13_0.2-0.3	917317	23/08/2022	<2	<0.4	5.9	<5	21	<0.1	<5	<5	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	8.7	<0.4	20	9.5	24	<0.1	8.3	38	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
614-TP14_0.4-0.5	917317	23/08/2022	11	0.5	30	27	66	<0.1	14	100	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	9.8	<0.4	22	5.3	24	<0.1	<5	7.4	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	12	<0.4	40	17	32	<0.1	12	31	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	6.9	<0.4	17	17	23	<0.1	10	25	<20	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3

Data Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	PAH																		PCBs
	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Carcinogenic PAHs as B(a)P TEQ	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)	PCBs (Sum of total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
NSW 2014 General Solid Waste CT1 (Without Leachate)					0.8														<50
NSW 2014 General Solid Waste SCC1 (With leachate)					10														<50
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)					3.2														<50
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)					23														<50
Sample Name	**Lab Report Number**	**Date**																		
TP16-0.2-0.3	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP17-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
QA05	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
QC05	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5
TP20-0.9-1.0	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614 -FRAG01	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP02_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
QA20220823	303939	23/08/2022	<0.1	<0.1	<0.1	<0.1	<0.05	0.086[#1]	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1
QC20220823	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP03_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP05_0.4-0.5	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP06_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP08_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP11_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP13_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
614-TP14_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	<0.5	<0.5	<0.5	<0.5	<0.5	0.605[#1]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1

Data Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	Organochlorine Pesticides																					
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05
NSW 2014 General Solid Waste CT1 (Without Leachate)																							
NSW 2014 General Solid Waste SCC1 (With leachate)																							
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)																							
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)																							
Sample Name	**Lab Report Number**	**Date**																					
TP16-0.2-0.3	795812	14/05/2021	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP17-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
QA05	269307	14/05/2021	<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	<0.1	<0.1	-	<0.1
QC05	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP20-0.9-1.0	795812	14/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
TP21-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614 -FRAG01	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP01_0.2-0.3	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP02_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
QA20220823	303939	23/08/2022	<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	<0.1	<0.1	-	<0.1
QC20220823	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP03_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP04_0.9-1.0	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP05_0.4-0.5	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP06_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP08_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP09_0.4-0.5	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.2	1.2	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP11_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP13_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
614-TP14_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05

Data Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table C: Soil Waste Classification Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	Asbestos									
	Approximate Sample Mass	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Respirable Fibres - Comment
	g	g	g	% (w/w)	% (w/w)	g	Comment	Comment	Comment	Comment
EQL										
NSW 2014 General Solid Waste CT1 (Without Leachate)										
NSW 2014 General Solid Waste SCC1 (With leachate)										
NSW 2014 Restricted Solid Waste CT2 (Without Leachate)										
NSW 2014 Restricted Solid Waste SCC2 (With Leachate)										

Sample Name	Lab Report Number	Date										
TP16-0.2-0.3	795812	14/05/2021	758	0	0	0	0	0	Nil	Nil	Nil	Nil
TP17-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP18-0.0-0.1	795812	14/05/2021	552	0	0	0	0	0	Nil	Nil	Nil	-
TP19-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP20-0.4-0.5	795812	14/05/2021	652	0	0	0	0	0	Nil	Nil	Nil	-
QA05	269307	14/05/2021	-	-	-	-	-	-	-	-	-	-
QC05	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP20-0.9-1.0	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP21-0.0-0.1	795812	14/05/2021	-	-	-	-	-	-	-	-	-	-
TP22-0.0-0.1	795812	14/05/2021	592	0	0	0	0	0	Nil	Nil	Nil	Nil
614 -FRAG01	917317	23/08/2022	78	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP01_0.2-0.3	917317	23/08/2022	518	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP02_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP03_0-0.1	917317	23/08/2022	469	0	0	0	0	0	Nil	Nil	Nil	Nil
QA20220823	303939	23/08/2022	-	-	-	-	-	-	-	-	-	-
QC20220823	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP03_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP04_0-0.1	917317	23/08/2022	528	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP04_0.9-1.0	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP05_0.4-0.5	917317	23/08/2022	573	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP06_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP07_0-0.1	917317	23/08/2022	593	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP08_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP09_0-0.1	917317	23/08/2022	431	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP09_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP11_0-0.1	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP12_0-0.1	917317	23/08/2022	657	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP13_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP14_0-0.1	917317	23/08/2022	694	0	0	0	0	0	Nil	Nil	Nil	Nil
614-TP14_0.4-0.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP14_1.4-1.5	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP15_0.2-0.3	917317	23/08/2022	-	-	-	-	-	-	-	-	-	-
614-TP15_0.9-1.0	917317	23/08/2022	472	0	0	0	0	0	Nil	Nil	Nil	Nil

Data Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5

Table D: Sediment Data Summary

Project Number: 60935

Project Name: Dural DD DSI

	Metals & Metalloids								TRHs (NEPC 2013)							BTEXN						
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	0.4	5	5	5	0.1	5	5	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
ANZG (2018) - Sediment Quality DGV	20	1.5	80	65	50	0.15	21	200	280				280									
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space	100		420	220	1100		210	600														170
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil											1300	5600		180	120	65	105	125			45	
NEPM 2013 Table 1A(1) HILs Res A Soil	100	20	100	6000	300	40	400	7400														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m														50	280	0.7	480	NL			110	5
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil									800	1000	3500	10000										
Sample ID	**Date**	**Lab Report Number**																				
SED01	14/05/2021	795812	11	<0.4	24	16	23	<0.1	<5	17	-	-	-	-	-	-	-	-	-	-	-	-	-
SED02	14/05/2021	795812	9.7	<0.4	20	10	15	-	<5	11	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SED03	14/05/2021	795812	12	<0.4	13	9.1	15	<0.1	<5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table D: Sediment Data Summary
Project Number: 60935
Project Name: Dural DD DSI

	Organochlorine Pesticides																							
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.1	0.05
ANZG (2018) - Sediment Quality DGV	0.0014				0.0009		0.0028		0.0045	0.0012						0.0027							
NEPM 2013 Site Specific EIL - Urban Residential and Public Open Space										180													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Fine Soil																							
NEPM 2013 Table 1A(1) HILs Res A Soil								6	50			240				10			6		300	20	10
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Clay 0-1m																							
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Fine Soil																							
Sample ID	**Date**	**Lab Report Number**																						
SED01	14/05/2021	795812	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
SED02	14/05/2021	795812	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05
SED03	14/05/2021	795812	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.1	<0.05

Table E: Leachate Data Summary
Project Number: 60935
Project Name: Dural DD DSI

	Metals	
	Nickel	Lead
	mg/L	mg/L
EQL	0.01	0.01
NSW EPA 2014 General Solid Waste (TCLP1)	2	5

Sample Name	Date	Lab Report Number		
HA10 0-0.1	14/05/2021	797801	0.23	-
614-TP03_0-0.1	23/08/2022	919122	-	<0.01

Table F: Surface Water Data Summary
Project Number: 60935
Project Name: Dural

	Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.003	0.01
ANZECC 2000 Irrigation Short Term Trigger Values	2	0.05	1	5	5	0.002	2	5																			
Recreational Water (ADWG 2018 x10)	0.1	0.02		20	0.1	0.01	0.2						0.9					0.9		0.9	0.01	3	8			6	
ANZG (2018) Freshwater 95% toxicant DGVs	0.013	0.0002	0.001	0.0014	0.0034	0.0006	0.011	0.008													0.95			0.35			0.016
Sample ID	**Date**	**Lab Report Number**																									
W01	14/05/2021	795812	0.004	<0.0002	<0.001	0.005	<0.001	<0.0001	<0.001	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.01

Table F: Surface Water Data Summary
Project Number: 60935
Project Name: Dural

	Organochlorine Pesticides																						Chlorinated Benzenes
	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene	Hexachlorobenzene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.002	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.001	0.0001
ANZECC 2000 Irrigation Short Term Trigger Values																							
Recreational Water (ADWG 2018 x10)								0.003	0.02	0.09									0.003				
ANZG (2018) Freshwater 95% toxicant DGVs					0.0002				0.00008	0.00001						0.00002			0.00009			0.0002	
Sample ID **Date** **Lab Report Number**																							
W01 14/05/2021 795812	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.001	<0.0001

Appendix A Photographic Log

Photograph 1 – Overgrown vegetation on top of mounding in the southwest with scattered mulch (21 Derriwong Road)

Photograph 2 – Overgrown vegetation on top of mounding in the northeast with scattered mulch (21 Derriwong Road)

Photograph 3 – Stockpile of bitumen, gravelly clay and mulch southwest of the site (21 Derriwong Road)

Photograph 4 – Residence with workshop (21 Derriwong Road). It is noted that an ACM fragment was historically observed on the fill material beneath the shed

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 5 – Southern side of workshop with build up of fill and anthropogenic material. Septic tank next to workshop (21 Derriwong Road)

Photograph 6 – Grass paddock, facing southeast (21 Derriwong Road)

Photograph 7 – Residence at 27 Derriwong Road

Photograph 8 – Grass paddock, facing north (27 Derriwong Road)

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

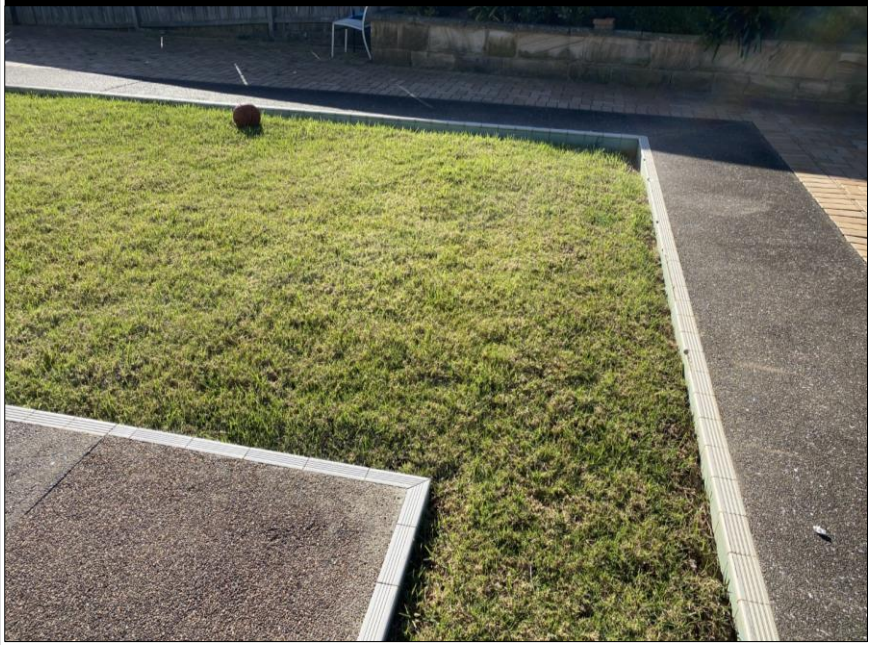
APPENDIX A

Photograph 9 – Concrete driveway and front yard in western end of 614 Old Northern Road (facing northeast)

Photograph 10 – Residence at 614 Old Northern Road, facing southeast

Photograph 11 – Sheds, and brick and wood piled in eastern end of 614 Old Northern Road, facing southeast

Photograph 12 – Backfilled and turfed swimming pool north of the residence, facing north



JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 2/09/2022
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

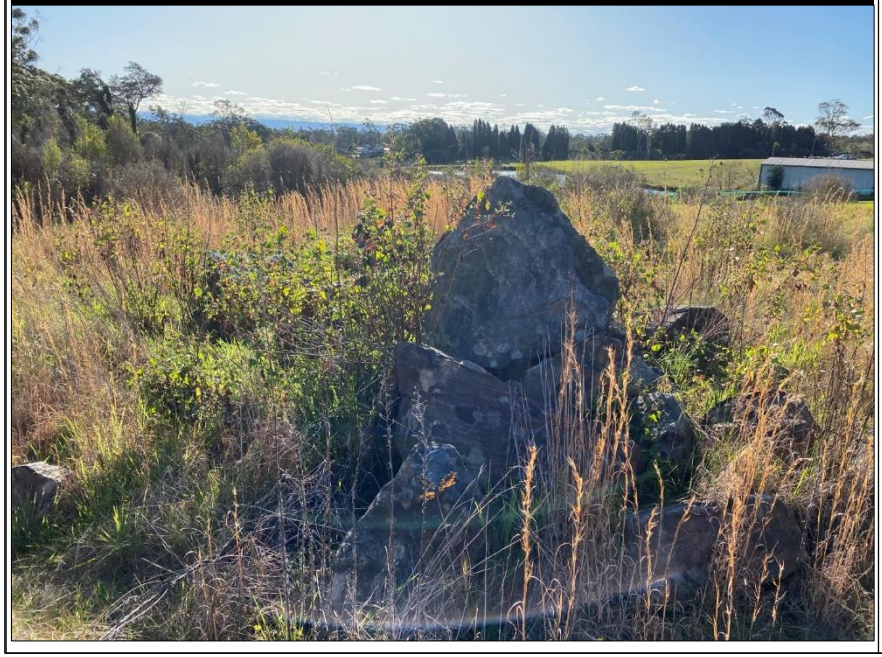
21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 13 – Piled stone (blue) and general waste (red), retaining wall (right) and general waste, facing north (614 Old Northern Road)

Photograph 14 – The western end of 614 Old Northern Road, facing west

Photograph 15 – Stone pile in western portion of 614 Old Northern Road, facing north



Photograph 16 – Elevated ground level at the northwest end of 614 Old Northern Road, Dural, facing northwest

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 2/09/2022
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 17 – Residence potentially containing ACM (618 Old Northern Road)

Photograph 18 – Residence and outhouse potentially constructed of ACM (618 Old Northern Road)

Photograph 19 – Portion of southern shed potentially constructed with ACM sheeting (618 Old Northern Road)

Photograph 20 – Northern shed (618 Old Northern Road)

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 21 – Discarded anthropogenic material (618 Old Northern Road)

Photograph 22 – Mulch stockpiling west of the northern shed (618 Old Northern Road)

Photograph 23 – Grass paddocks (618 Old Northern Road)

Photograph 24 – Dam raised southern wall (618 Old Northern Road)

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 25 – Shade structure (618 Old Northern Road)

Photograph 26 – Chemical storage shed (618 Old Northern Road)

Photograph 27 – Potential ACM containing pipe located southeast of dam (618 Old Northern Road)

Photograph 28 – Stockpile of dam material, ACM fragment observed (618 Old Northern Road)

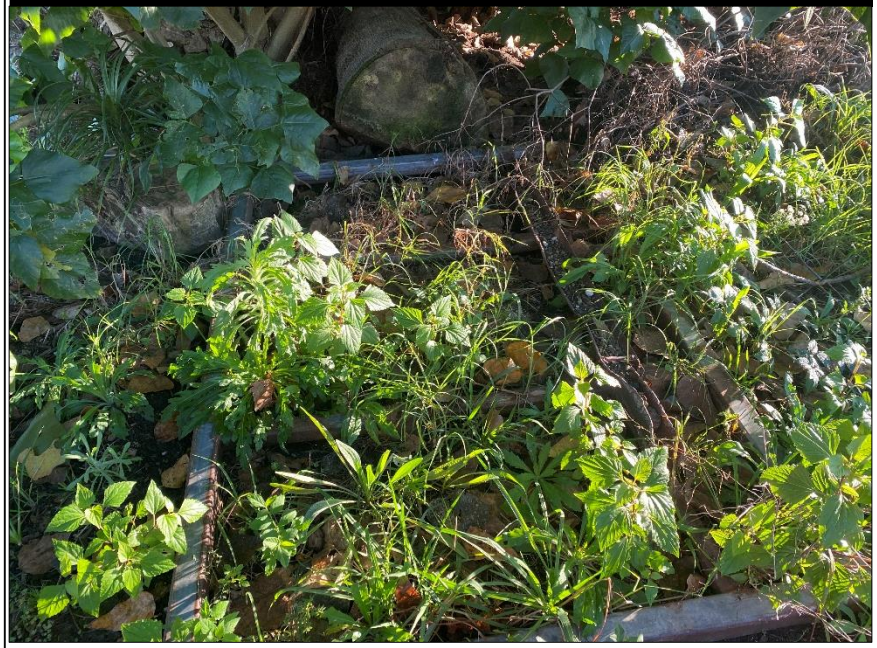
JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 29 – Anthropogenic material adjacent to pavement area (618 Old Northern Road)



Photograph 30 – Gravel surfaced area (618 Old Northern Road)

Photograph 31 – Staining where historic AST was located (618 Old Northern Road)

Photograph 32 – Septic Tank and toilet located north of the sheds (618 Old Northern Road)

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 33 – Gravel carpark with overgrown grass and shrubs (626 Old Northern Road)

Photograph 34 – Vacant run-down concrete building (626 Old Northern Road)

Photograph 35 – Grass paddock (626 Old Northern Road)

Photograph 36 – Anthropogenic material buried west of building (626 Old Northern Road)

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Photograph 37 – ACM pipe present in eastern end of Trench02, facing south-west (618 Old Northern Road)

Photograph 38 – Locations of Trench05 and Trench06, facing south (618 Old Northern Road)

Photograph 39 – Eastern point of identified ACM pipe (Trench07), facing east (618 Old Northern Road)

Photograph 40 – ACM pipe in western end of Trench02, facing south-east (618 Old Northern Road)

JBS&G

Job No: 60935

Client: Legacy

Version: Rev A | Date: 31/05/2021

Drawn By: AS | Checked By: SG

Not to Scale

Coord. Sys n/a

21 and 27 Derriwong Road and 614, 618 and 626 Old Northern Road,
Dural, NSW

APPENDIX A

Appendix B Registered Groundwater Wells

WaterNSW
Work Summary

GW018964

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): IRRIGATION

Work Type: Bore open thru rock
Work Status:
Construct.Method: Cable Tool
Owner Type: Private

Commenced Date:
Completion Date: 01/03/1961
Final Depth: 76.20 m
Drilled Depth: 76.20 m

Contractor Name: (None)
Driller:
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description: invalid code
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	141
Licensed:			

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9130-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6270902.000
Easting: 316162.000
Latitude: 33°41'09.3"S
Longitude: 151°01'00.2"E

GS Map: -
MGA Zone: 56
Coordinate Source: GD.,PR. MAP

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	Threaded Steel	0.00	40.30	152			
1	1	Opening	Slots	9.10	10.60	152		1	
1	1	Opening	Slots	22.80	25.80	152		2	

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
9.70	10.60	0.90	Consolidated	3.50		0.06			
21.30	27.30	6.00	Consolidated	3.50		3.03			
39.60	40.50	0.90	Consolidated	6.00		0.63			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.91	0.91	Loam Sandy	Loam	
0.91	4.26	3.35	Boulders	Boulders	
4.26	13.71	9.45	Sandstone Water Supply	Sandstone	

13.71	16.76	3.05	Shale	Shale	
16.76	44.19	27.43	Sandstone Water Supply	Sandstone	
44.19	47.24	3.05	Shale	Shale	
47.24	76.20	28.96	Sandstone	Sandstone	

Remarks

19/02/1975: SITED KENTHURST RD. KENTHURST.

***** End of GW018964 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW072412

Licence: 10WA108332
Licence Status: CURRENT

Authorised Purpose(s): DOMESTIC
Intended Purpose(s): DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 21/11/1994
Final Depth: 204.50 m
Drilled Depth: 204.50 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Richard Auld
Assistant Driller:

Property: N/A NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s): 0.500

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	1//228920
Licensed:	CUMBERLAND	NELSON	Whole Lot 1//228920

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6271722.000
Easting: 316803.000
Latitude: 33°40'43.1"S
Longitude: 151°01'25.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	0.80	210			Rotary Air
1		Hole	Hole	0.80	5.40	210			Rotary Air
1		Hole	Hole	5.40	204.50	158			Rotary Air
1	1	Casing	Steel	-0.50	5.50	168	163		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
145.10	145.40	0.30	Unknown			0.20	150.50		
199.30	199.50	0.20	Unknown			0.30	204.50		300.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.40	0.40	TOP SOIL	Topsoil	
0.40	1.80	1.40	FRACTURED SHALE	Shale	
1.80	17.00	15.20	SHALE	Shale	

17.00	48.30	31.30	L/GREY MED GRAIN SANDSTONE	Sandstone	
48.30	49.70	1.40	SHALE	Shale	
49.70	55.80	6.10	L/GREY MED GRAIN S/STONE CLAY MATRIX	Sandstone	
55.80	56.70	0.90	SHALE	Shale	
56.70	60.10	3.40	GREY MED GRAIN S/STONE	Sandstone	
60.10	61.30	1.20	SHALE	Shale	
61.30	102.20	40.90	LIGHT GREY MED GRAIN S/STONE	Sandstone	
102.20	108.40	6.20	L/GREY M/GRAIN S/STONE CLAY MATRIX	Sandstone	
108.40	130.60	22.20	L/GREY MED GRAIN S/STONE	Sandstone	
130.60	138.30	7.70	SHALE	Shale	
138.30	141.80	3.50	L/GREY M/GRAIN S/STONE SLIGHT QUARTZ MATRIX	Sandstone	
141.80	145.10	3.30	L/GREY MED GRAIN SANDSTONE	Quartz	
145.10	145.50	0.40	QUARTZ/SHALE CROSS BED	Quartz	
145.50	165.50	20.00	L/GREY MED GRAIN SANDSTONE	Sandstone	
165.50	167.80	2.30	L/GREY M/GRAIN S/STONE QUARTZ MATRIX	Sandstone	
167.80	179.90	12.10	L/GREY MED GRAIN SANDSTONE	Sandstone	
179.90	192.10	12.20	GREY MED GRAIN SANDSTONE	Sandstone	
192.10	201.50	9.40	L/GREY M/GRAIN S/STONE (FRACTURING)	Sandstone	
201.50	204.50	3.00	GREY MED GRAIN SANDSTONE	Sandstone	

Remarks

10/10/2011: Adjusted Inside, Outside Diameter and Thickness due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.
10/01/2013: Nat Carling, 10-Jan-2013; Added rock type codes to driller's log & added missing information (based on existing data).

***** End of GW072412 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW104365

Licence:
Licence Status:

Authorised Purpose(s):
Intended Purpose(s): TEST BORE

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Rotary
Owner Type: Private

Commenced Date:
Completion Date: 17/07/2002
Final Depth: 198.00 m
Drilled Depth: 198.00 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: William Crump
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 70.000
Salinity Description:
Yield (L/s): 1.500

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	CASTLE HI	LT 1 DP 195838
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270398.000
Easting: 316103.000
Latitude: 33°41'25.7"S
Longitude: 151°00'57.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: Map Interpre

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.00	210			Rotary Air
1		Hole	Hole	4.00	5.50	210			Down Hole Hammer
1		Hole	Hole	5.50	198.00	157			Down Hole Hammer
1	1	Casing	Pvc Class 9	-0.50	50.50	140	130		Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.50	5.50	168	158		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
53.50	54.00	0.50	Unknown			0.50	60.00		1260.00
123.00	124.50	1.50	Unknown			0.10	126.00		1070.00
152.00	154.00	2.00	Unknown			0.10	156.00		1070.00
191.50	192.00	0.50	Unknown	70.00		1.50	198.00		1060.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	4.00	4.00	BROWN CLAY	Clay	
4.00	48.00	44.00	SANDSTONE GREY	Sandstone	
48.00	48.50	0.50	CLAY GREY	Clay	
48.50	53.50	5.00	SANDSTONE GREY	Sandstone	
53.50	54.00	0.50	SANDSTONE FRACTURED	Sandstone	
54.00	57.00	3.00	SANDSTONE GREY	Sandstone	
57.00	57.50	0.50	SHALE HARD	Shale	
57.50	59.50	2.00	SANDSTONE GREY	Sandstone	
59.50	60.00	0.50	SHALE HARD	Shale	
60.00	116.50	56.50	SANDSTONE GREY	Sandstone	
116.50	118.00	1.50	SANDSTONE DARK GREY	Sandstone	
118.00	124.50	6.50	SANDSTONE QUARTZ	Sandstone	
124.50	152.00	27.50	SANDSTONE GREY	Sandstone	
152.00	154.00	2.00	SANDSTONE QUARTZ	Sandstone	
154.00	172.00	18.00	SANDSTONE GREY	Sandstone	
172.00	174.00	2.00	SANDSTONE QUARTZ	Sandstone	
174.00	191.50	17.50	SANDSTONE GREY	Sandstone	
191.50	192.00	0.50	SANDSTONE FRACTURED	Sandstone	
192.00	198.00	6.00	SANDSTONE GREY	Sandstone	

***** End of GW104365 *****

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WaterNSW
Work Summary

GW105443

Licence: 10WA108607 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status:
Construct.Method: Rotary Air
Owner Type:

Commenced Date:
Completion Date: 31/10/2003
Final Depth: 180.50 m
Drilled Depth: 180.50 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Damian Paranihi
Assistant Driller:

Property: PANETTA / VUMBACA 3 Jane Pl DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 73.000
Salinity Description:
Yield (L/s): 0.150

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	13 260906
Licensed:	CUMBERLAND	NELSON	Whole Lot 13//260906

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6271461.000
Easting: 316504.000
Latitude: 33°40'51.4"S
Longitude: 151°01'13.9"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.60	205			Down Hole Hammer
1		Hole	Hole	5.60	120.50	159			Down Hole Hammer
1		Hole	Hole	120.50	180.50	154			Down Hole Hammer
1	1	Casing	Steel	-0.40	5.60	168	158		Driven into Hole
1	1	Casing	Pvc Class 9	0.40	77.60	140			Suspended in Clamps, Screwed and Glued

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
71.50	80.50	9.00	Unknown			0.20	84.50		846.00
115.50	118.50	3.00	Unknown			0.20	120.50		740.00
123.50	124.50	1.00	Unknown			0.10	126.50		1220.00
154.00	160.50	6.50	Unknown	73.00		0.15	162.50		1150.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	0.20	0.20	TOPSOIL	Topsoil	
0.20	1.60	1.40	CLAY	Clay	
1.60	35.50	33.90	SANDSTONE GREY/BROWN/ M.G	Sandstone	
35.50	45.60	10.10	SANDSTONE GREY/D/GREY/SILTSTONE	Sandstone	
45.60	71.50	25.90	SANDSTONE GREY	Sandstone	
71.50	72.80	1.30	FRACTURED SANDSTONE GREY W.0.1	Invalid Code	
72.80	84.50	11.70	SANDSTONE GREY W 0.1	Sandstone	
84.50	115.50	31.00	SANDSTONE GREY /LT GREY	Sandstone	
115.50	132.00	16.50	SANDSTONE GREY/QUARTZ W 0.3	Sandstone	
132.00	154.50	22.50	SANDSTONE GREY/LT GREY	Sandstone	
154.50	156.00	1.50	QUARTZ W 0.1	Quartz Porphyry	
156.00	160.00	4.00	SANDSTONE LT GREY/QUARTZ W O.05	Sandstone	
160.00	164.50	4.50	SANDSTONE GREY	Sandstone	
164.50	167.50	3.00	QUARTZ	Invalid Code	
167.50	180.50	13.00	SANDSTONE GREY/LT GREY	Sandstone	

***** End of GW105443 *****

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WaterNSW
Work Summary

GW105497

Licence: 10WA108616 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status:
Construct.Method: Rotary Air
Owner Type:

Commenced Date:
Completion Date: 12/11/2003
Final Depth: 150.00 m
Drilled Depth: 150.00 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Damian Paranihi
Assistant Driller:

Property: MASTA P/L 30 Derriwong Rd DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 29.000
Salinity Description:
Yield (L/s): 0.300

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	2 623323
Licensed:	CUMBERLAND	NELSON	Whole Lot 2//623323

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9130-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6270813.000
Easting: 316632.000
Latitude: 33°41'12.5"S
Longitude: 151°01'18.3"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.60	205			Down Hole Hammer
1		Hole	Hole	5.60	90.00	159			Down Hole Hammer
1		Hole	Hole	90.00	150.00	156			Down Hole Hammer
1	1	Casing	Steel	-0.40	5.60	168	158		Driven into Hole
1	1	Casing	Pvc Class 9	0.40	35.60	140			Suspended in Clamps, Screwed and Glued

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
62.30	62.40	0.10	Unknown			0.25	66.00		830.00
69.20	70.00	0.80	Unknown			0.10	72.00		869.00
126.00	127.30	1.30	Unknown			0.45	132.00		780.00
136.50	137.80	1.30	Unknown	29.00		0.30	138.00		998.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	0.30	0.30	TOPSOIL	Topsoil	
0.30	32.50	32.20	SANDSTONE BROWN/GREY MG	Sandstone	
32.50	32.70	0.20	F. SANDSTONE GREY AND SILTSTONE	Sandstone	
32.70	62.30	29.60	SANDSTONE GREY	Sandstone	
62.30	62.40	0.10	W. O.25 SANDSTONE L/GREY	Sandstone	
62.40	69.20	6.80	SANDSTONE GREY M/G	Sandstone	
69.20	70.00	0.80	SANDSTONE GREY	Sandstone	
70.00	126.00	56.00	SANDSTONE GREY L/GREY	Sandstone	
126.00	127.30	1.30	SANDSTONE L/GREY AND QUARTZ	Sandstone	
127.30	136.50	9.20	SANDSTONE L/GREY	Sandstone	
136.50	137.80	1.30	W,QUARRTZ	Quartz	
137.80	150.00	12.20	SANDSTONE L/GREY	Sandstone	

Remarks

10/11/2010: Karla Abbs 10-Nov-2010; Removed invalid codes and updated drillers log

***** End of GW105497 *****

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WaterNSW
Work Summary

GW105755

Licence: 10WA108626 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Down Hole Hamm
Owner Type: Private

Commenced Date:
Completion Date: 14/01/2004
Final Depth: 180.50 m
Drilled Depth: 180.50 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Damian Paranihi
Assistant Driller:

Property: GIALOURIS 10 Davey Rd DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 59.000
Salinity Description:
Yield (L/s): 1.300

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	24//261377
Licensed:	CUMBERLAND	NELSON	Whole Lot 24//261377

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9130-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: (Unknown)
Northing: 6271813.000
Easting: 316310.000
Latitude: 33°40'39.8"S
Longitude: 151°01'06.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.60	205			Down Hole Hammer
1		Hole	Hole	5.60	120.50	162			Down Hole Hammer
1		Hole	Hole	120.50	180.50	158			Down Hole Hammer
1		Annulus	Concrete	0.00	5.70	162	158		
1	1	Casing	Pvc Class 9	-0.30	35.70	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.30	5.70	158	148		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
61.50	62.50	1.00	Unknown			0.50		00:25:00	2150.00
108.00	110.50	2.50	Unknown			0.50		00:25:00	2230.00
145.50	147.50	2.00	Unknown			0.10		00:25:00	1350.00
152.50	155.50	3.00	Unknown	59.00		0.50		00:50:00	1040.00

Drillers Log

From	To	Thickness	Drillers Description	Geological Material	Comments

(m)	(m)	(m)			
0.00	0.20	0.20	topsoil	Topsoil	
0.20	21.60	21.40	sandstone, grey brown	Sandstone	
21.60	28.50	6.90	shale	Shale	
28.50	34.60	6.10	siltstone	Siltstone	
34.60	48.50	13.90	sandstone, grey	Sandstone	
48.50	49.50	1.00	siltstone	Siltstone	
49.50	61.50	12.00	sandstone, grey & siltstone bands	Sandstone	
61.50	62.50	1.00	sandstone, grey	Sandstone	
62.50	108.00	45.50	sandstone, grey	Sandstone	
108.00	110.50	2.50	sandstone, light grey & quartz	Sandstone	
110.50	115.00	4.50	sandstone, grey	Sandstone	
115.00	116.50	1.50	quartz	Quartz	
116.50	142.50	26.00	sandstone, grey & quartz	Sandstone	
142.50	168.50	26.00	sandstone, grey light grey	Sandstone	
168.50	170.70	2.20	sandstone, grey - brown	Sandstone	
170.70	180.50	9.80	sandstone, grey	Sandstone	

Remarks

12/11/2009: updated from original form A

***** End of GW105755 *****

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WaterNSW
Work Summary

GW105866

Licence: 10WA108704 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s):

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:**
Completion Date: 05/05/2005 **Drilled Depth:**

Contractor Name: (None)
Driller:
Assistant Driller:

Property: DURAL LAND HOLDINGS PTY LTD 618 Old Northern Road DURAL 2158 NSW **Standing Water Level (m):**
GWMA: - **Salinity Description:**
GW Zone: - **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	X 501233
Licensed:	CUMBERLAND	NELSON	Whole Lot X//501233

Region: 10 - Sydney South Coast **CMA Map:** 9130-4S
River Basin: 212 - HAWKESBURY RIVER **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6270712.000 **Latitude:** 33°41'15.9"S
Elevation Source: (Unknown) **Easting:** 316825.000 **Longitude:** 151°01'25.8"E

GS Map: - **MGA Zone:** 56 **Coordinate Source:** Unknown

***** End of GW105866 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW106600

Licence: 10WA108820 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Down Hole Hamm
Owner Type: Private

Commenced Date:
Completion Date: 14/10/2004
Final Depth: 180.20 m
Drilled Depth: 180.20 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Colin Leslie Barden
Assistant Driller:

Property: BAXTER 1 Jane Pl DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s): 1.200

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	8//259843
Licensed:	CUMBERLAND	NELSON	Whole Lot 8//259843

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9130-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6271623.000
Easting: 316336.000
Latitude: 33°40'46.0"S
Longitude: 151°01'07.4"E

GS Map: -
MGA Zone: 56
Coordinate Source: GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	5.60	204			Down Hole Hammer
1		Hole	Hole	5.60	138.20	164			Down Hole Hammer
1		Hole	Hole	138.20	180.20	168			Down Hole Hammer
1		Annulus	Concrete	4.00	5.70	164	140		
1	1	Casing	Pvc Class 9	-0.30	65.70	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.30	5.70	164	154		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
29.50	29.70	0.20	Unknown			0.15		00:25:00	645.00
100.30	100.40	0.10	Unknown			0.15		00:25:00	980.00
151.20	156.80	5.60	Unknown			0.25		00:25:00	880.00
163.30	166.30	3.00	Unknown			0.07		00:50:00	714.00

Drillers Log

From	To	Thickness	Drillers Description	Geological Material	Comments

(m)	(m)	(m)			
0.00	0.50	0.50	topsoil, light brown sandy	Topsoil	
0.50	29.50	29.00	sandstone, grey brown	Sandstone	
29.50	29.70	0.20	sandstone, grey coarse grained	Sandstone	
29.70	34.20	4.50	sandstone, dark grey	Sandstone	
34.20	34.50	0.30	shale, dark grey	Shale	
34.50	35.20	0.70	sandstone, grey	Sandstone	
35.20	39.20	4.00	shale, dark grey medium grained	Shale	
39.20	52.30	13.10	sandstone, light grey	Sandstone	
52.30	52.60	0.30	shale, grey	Shale	
52.60	61.20	8.60	sandstone, grey	Sandstone	
61.20	61.50	0.30	shale, light grey	Shale	
61.50	100.30	38.80	sandstone, light grey brown	Sandstone	
100.30	100.40	0.10	sandstone, dark brown fractured	Sandstone	
100.40	113.60	13.20	sandstone, grey	Sandstone	
113.60	113.90	0.30	siltstone, dark grey	Siltstone	
113.90	133.70	19.80	sandstone, light grey	Sandstone	
133.70	133.80	0.10	sandstone, light grey fractured	Sandstone	
133.80	151.20	17.40	sandstone, light grey	Sandstone	
151.20	156.80	5.60	sandstone, light grety quartz	Sandstone	
156.80	163.30	6.50	sandstone, light grey	Sandstone	
163.30	166.30	3.00	sandstone, brown coarse grained	Sandstone	
166.30	180.20	13.90	sandstone, light grey	Sandstone	

Remarks

19/01/2010: updated from original form A

***** End of GW106600 *****

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WaterNSW
Work Summary

GW107163

Licence: 10WA108957 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Down Hole Hamm
Owner Type: Private

Commenced Date:
Completion Date: 28/06/2005
Final Depth: 204.20 m
Drilled Depth: 204.20 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Colin Leslie Barden
Assistant Driller:

Property: ROBINSON 20 Cotswold Rd DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 50.800
Salinity Description:
Yield (L/s): 0.400

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NORTH COL	1 785760
Licensed:	CUMBERLAND	NORTH COLAH	Whole Lot 1//785760

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6271273.000
Easting: 318009.000
Latitude: 33°40'58.4"S
Longitude: 151°02'12.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.60	202			Down Hole Hammer
1		Hole	Hole	2.60	120.20	162			Down Hole Hammer
1		Hole	Hole	120.20	204.20	160			Down Hole Hammer
1		Annulus	Concrete	0.00	2.60	202			
1	1	Casing	Pvc Class 9	-0.40	71.60	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.40	2.60	168	158		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
19.60	19.90	0.30	Unknown			0.15		00:25:00	440.00
146.20	147.10	0.90	Unknown	50.80		0.25		00:50:00	1800.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.10	0.10	clay, light brown shandy	Clay	

0.10	19.60	19.50	sandstone, grey, brown pink	Sandstone	
19.60	19.90	0.30	sandstone, brown weathered	Sandstone	
19.90	27.70	7.80	sandstone, grey pink	Sandstone	
27.70	29.60	1.90	shale, grey	Shale	
29.60	37.40	7.80	sandstone, grey	Sandstone	
37.40	40.30	2.90	shale, grey	Shale	
40.30	65.70	25.40	sandstone, grey	Sandstone	
65.70	65.90	0.20	shale, dark grey	Shale	
65.90	67.70	1.80	sandstone, grey	Sandstone	
67.70	69.30	1.60	shale, grey	Shale	
69.30	93.40	24.10	sandstone, grey	Sandstone	
93.40	98.20	4.80	sandstone, grey	Sandstone	
98.20	99.10	0.90	sitlstone, dark grey	Silcrete	
99.10	111.30	12.20	sandstone, light grey	Sandstone	
111.30	111.60	0.30	shale, grey and quartz soft	Shale	
111.60	121.80	10.20	siltstone, dark grey	Siltstone	
121.80	146.20	24.40	sandstone, light grey	Sandstone	
146.20	147.10	0.90	sandstone, light grey quartz	Sandstone	
147.10	165.90	18.80	sandstone, grey	Sandstone	
165.90	166.10	0.20	clay, green sand	Clay	
166.10	204.20	38.10	sandstone, light grey, brown plus dakr grey siltstone bands	Sandstone	

Remarks

28/06/2005: Form A Remarks:
fine grained white sand entering bore from 165.9 - 166.1
22/03/2010: updated from original form A

***** End of GW107163 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW108168

Licence: 10WA109075
Licence Status: CURRENT

Authorised Purpose(s): DOMESTIC,STOCK
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Down Hole Hamm
Owner Type: Private

Commenced Date:
Completion Date: 20/06/2006
Final Depth: 237.40 m
Drilled Depth: 237.40 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Colin Leslie Barden
Assistant Driller:

Property: CALLUS 34 Derriwong Rd DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 34.000
Salinity Description:
Yield (L/s): 0.700

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	101 818569
Licensed:	CUMBERLAND	NELSON	Whole Lot 101//818569

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270954.000
Easting: 316741.000
Latitude: 33°41'08.0"S
Longitude: 151°01'22.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.50	203			Down Hole Hammer
1		Hole	Hole	2.50	120.00	165			Down Hole Hammer
1		Hole	Hole	120.00	237.40	160			Down Hole Hammer
1		Annulus	Concrete	0.00	2.50	203			
1	1	Casing	Pvc Class 9	-0.50	59.50	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.50	2.50	168	158		Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
65.00	66.00	1.00	Unknown			0.30		00:25:00	1570.00
112.00	113.00	1.00	Unknown			0.08		00:25:00	1450.00
128.00	130.00	2.00	Unknown			0.27		00:25:00	3300.00
232.00	236.00	4.00	Unknown	34.00		0.05		00:05:00	1900.00

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.50	0.50	topsoil	Topsoil	
0.50	34.50	34.00	sandstone, grey weathered	Sandstone	
34.50	39.00	4.50	shale	Shale	
39.00	51.00	12.00	sandstone, grey	Sandstone	
51.00	51.50	0.50	shale	Shale	
51.50	65.00	13.50	sandstone, grey	Sandstone	
65.00	66.00	1.00	sandstone, grey quartz	Sandstone	
66.00	112.00	46.00	sandstone, grey	Sandstone	
112.00	113.00	1.00	sandstone, grey quartz	Sandstone	
113.00	115.00	2.00	siltstone	Siltstone	
115.00	128.00	13.00	sandstone, grey	Sandstone	
128.00	130.00	2.00	sandstone, grey quartz	Sandstone	
130.00	150.00	20.00	sandstone, grey	Sandstone	
150.00	158.50	8.50	siltstone	Siltstone	
158.50	204.00	45.50	sandstone, grey	Sandstone	
204.00	207.00	3.00	sandstone, light brown	Sandstone	
207.00	232.00	25.00	sandstone, grey	Sandstone	
232.00	236.00	4.00	sandstone, grey quartz	Sandstone	
236.00	237.40	1.40	sandstone, grey	Sandstone	

Remarks

20/06/2006: Form A Remarks:
air lift test at 150m when completed was producing a surface flow rate of 0.6 LPS and TDS of 1650mg/l
03/05/2010: updated from original form A

***** End of GW108168 *****

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WaterNSW
Work Summary

GW108556

Licence: 10WA109166 **Licence Status:** CURRENT

Authorised Purpose(s): DOMESTIC,STOCK
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method: Down Hole Hamm
Owner Type: Private

Commenced Date:
Completion Date: 13/02/2007
Final Depth: 210.00 m
Drilled Depth: 210.00 m

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Colin Leslie Barden
Assistant Driller:

Property: GILES 23 Vineys Lane DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 80.000
Salinity Description:
Yield (L/s): 0.550

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	SOUTH COL	2//220577
Licensed:	CUMBERLAND	SOUTH COLAH	Whole Lot 2//220577

Region: 10 - Sydney South Coast
River Basin: 212 - HAWKESBURY RIVER
Area/District:
CMA Map: 9130-4S
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270677.000
Easting: 318052.000
Latitude: 33°41'17.8"S
Longitude: 151°02'13.4"E

GS Map: -
MGA Zone: 56
Coordinate Source: GIS - Geogra

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	2.60	203			Down Hole Hammer
1		Hole	Hole	2.60	108.00	164			Down Hole Hammer
1		Hole	Hole	108.00	210.00	156			Down Hole Hammer
1		Annulus	Concrete	0.00	2.60	203	168		
1	1	Casing	Pvc Class 9	-0.40	35.60	140			Suspended in Clamps, Screwed and Glued
1	1	Casing	Steel	-0.40	2.60	168	158		Suspended in Clamps, Driven into Hole

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
55.00	59.00	4.00	Unknown			0.07		00:25:00	325.00
84.00	84.50	0.50	Unknown			0.10		00:25:00	535.00
112.00	115.00	3.00	Unknown			0.08		00:25:00	500.00
166.00	171.00	5.00	Unknown	80.00		0.30		00:25:00	725.00

Drillers Log

From	To	Thickness	Drillers Description	Geological Material	Comments

(m)	(m)	(m)			
0.00	1.00	1.00	Clay	Clay	
1.00	28.00	27.00	Sandstone, yellow	Sandstone	
28.00	31.00	3.00	Sandy Clay	Sandy Clay	
31.00	52.00	21.00	Sandstone, grey	Sandstone	
52.00	55.00	3.00	Siltstone	Siltstone	
55.00	59.00	4.00	Sandstone Quartz, water bearing	Sandstone	
59.00	83.00	24.00	Sandstone, grey	Sandstone	
83.00	84.00	1.00	Sandstone Quartz	Sandstone	
84.00	84.50	0.50	Sandstone, grey, fractured, water bearing	Sandstone	
84.50	112.00	27.50	Sandstone, grey	Sandstone	
112.00	115.00	3.00	Sandstone Quartz, water bearing	Siltstone	
115.00	116.00	1.00	Siltstone	Unknown	
116.00	118.00	2.00	Sandstone Quartz	Sandstone	
118.00	128.00	10.00	Sandstone, grey	Sandstone	
128.00	137.00	9.00	Sandstone Quartz	Sandstone	
137.00	140.00	3.00	Sandstone, grey	Sandstone	
140.00	147.00	7.00	Sandstone Quartz	Sandstone	
147.00	157.00	10.00	Sandstone, grey	Sandstone	
157.00	162.00	5.00	Sandstone Quartz	Sandstone	
162.00	166.00	4.00	Sandstone, grey	Sandstone	
166.00	171.00	5.00	Sandstone Quartz, water bearing	Sandstone	
171.00	187.00	16.00	Sandstone, grey	Sandstone	
187.00	190.00	3.00	Sandstone Quartz	Sandstone	
190.00	203.00	13.00	Sandstone, grey	Sandstone	
203.00	207.00	4.00	Sandstone Quartz	Sandstone	
207.00	210.00	3.00	Sandstone, grey	Sandstone	

Remarks

13/02/2007: Form A Remarks:
air lift at completion at 160m flow of 0.5lps
02/03/2010: updated from original form A

***** End of GW108556 *****

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WaterNSW
Work Summary

GW108938

Licence: 10WA109211
Licence Status: CURRENT

Authorised Purpose(s): DOMESTIC
Intended Purpose(s): DOMESTIC

Work Type: Bore
Work Status:
Construct.Method:
Owner Type: Private

Commenced Date:
Completion Date: 19/06/2008
Final Depth: 180.00 m
Drilled Depth:

Contractor Name: INTERTEC DRILLING SERVICES
Driller: Paul Sheehy
Assistant Driller:

Property: BREITENBERGER 32 Derriwong Road Round Corner DURAL 2158 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 40.000
Salinity Description:
Yield (L/s): 0.200

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	NELSON	102//818569
Licensed:	CUMBERLAND	NELSON	Whole Lot 102//818569

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270860.000
Easting: 316755.000
Latitude: 33°41'11.1"S
Longitude: 151°01'23.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

***** End of GW108938 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW110308

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 22/06/2009
Final Depth: 7.00 m
Drilled Depth: 7.00 m

Contractor Name: Macquarie Drilling
Driller: Douglas Stephen Miller
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 2.800
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	SOUTH COL	11//825077
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6269988.000
Easting: 317544.000
Latitude: 33°41'39.8"S
Longitude: 151°01'53.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.20	150			Rotary Air
1		Hole	Hole	1.20	7.00	125			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded
1	1	Casing		0.00	3.00	65			
1	1	Casing		3.00	7.00	65			Seated on Bottom
1	1	Opening	Screen	3.00	7.00	65		0	PVC Class 18, Screwed, A: 0.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
5.00	7.00	2.00	Unknown	2.80					

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.50	1.50	FILL,GREY AND BROWN SANDY GRAVEL AND SANDSTONE	Fill	

1.50	2.20	0.70	CLAY,SANDY,BROWN AND GREY	Clay	
2.20	7.00	4.80	SANDSTONE,BROWN,FINE TO MED GRAINED	Sandstone	

***** End of GW110308 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW110309

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 22/05/2009
Final Depth: 10.00 m
Drilled Depth: 10.00 m

Contractor Name: Macquarie Drilling
Driller: Douglas Stephen Miller
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 3.100
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	SOUTH COLAH	11//825077
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6269974.000
Easting: 317530.000
Latitude: 33°41'40.3"S
Longitude: 151°01'52.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.20	50			Rotary Air
1		Hole	Hole	1.20	3.20	50			Auger - Solid Flight
1		Hole	Hole	3.20	10.00	50			Down Hole Hammer
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded
1	1	Casing		0.00	4.00	50			
1	1	Casing		4.00	10.00	50			Seated on Bottom, Screwed
1	1	Opening	Screen	4.00	10.00	50		0	PVC Class 18, Screwed, A: 0.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
5.20	8.50	3.30	Unknown	3.10					

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.90	2.90	FILL,GREY AND BROWN CLAYEY SAND	Fill	

			AND SANDSTONE FRAGS.		
2.90	10.00	7.10	SANDSTONE GREY,FINE TO MED. GRAINED	Sandstone	

***** End of GW110309 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW110310

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Rotary Air
Owner Type: Private

Commenced Date:
Completion Date: 22/05/2009
Final Depth: 8.50 m
Drilled Depth: 8.50 m

Contractor Name: Macquarie Drilling
Driller: Douglas Stephen Miller
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 3.200
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	SOUTH COL	11//825077
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6269975.000
Easting: 317540.000
Latitude: 33°41'40.3"S
Longitude: 151°01'53.0"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.20	150			Rotary Air
1		Hole	Hole	1.20	3.10	125			Auger - Solid Flight
1		Hole	Hole	3.10	8.50	100			Down Hole Hammer
1		Annulus	Waterworn/Rounded	0.00	0.00				Graded, Q:6500.000m3
1	1	Casing		0.00	2.50	65			
1	1	Casing		2.50	8.50	65			Seated on Bottom, Screwed
1	1	Opening	Screen	2.50	8.50	65		0	PVC Class 18, Screwed, A: 0.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
6.50	8.50	2.00	Unknown	3.20					

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.80	2.80	FILL, BROWN AND GREY,SAND AND	Fill	

			GRAVEL		
2.80	8.50	5.70	SANDSTONE RED BROWN,FINE TO MED GRAINED AND WEATHERED	Sandstone	

***** End of GW110310 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW110567

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Auger - Solid
Owner Type: Private

Commenced Date:
Completion Date: 01/09/2009
Final Depth: 8.00 m
Drilled Depth: 8.00 m

Contractor Name: Numac Drilling Services Pty Ltd
Driller: Jason Denis Boyd
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	CASTLE HI	1//1116029
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270066.000
Easting: 316487.000
Latitude: 33°41'36.7"S
Longitude: 151°01'12.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	8.00	150			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	3.50	8.00				Ungraded
1	1	Casing	P.V.C.	0.00	4.00	60			Seated on Bottom, Screwed
1	1	Opening	Screen	4.00	8.00	60		0	PVC, Screwed, A: 0.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
6.00	8.00	2.00	Unknown						

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.00	2.00	CLAY	Clay	
2.00	8.00	6.00	SHALE GREY	Shale	

***** End of GW110567 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

WaterNSW
Work Summary

GW110568

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Well
Work Status:
Construct.Method: Auger - Solid
Owner Type: Private

Commenced Date:
Completion Date: 01/09/2009
Final Depth: 6.50 m
Drilled Depth: 7.00 m

Contractor Name: Numac Drilling Services Pty Ltd
Driller: Jason Denis Boyd
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	CASTLE HI	1//1116029
Licensed:			

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6270087.000
Easting: 316504.000
Latitude: 33°41'36.0"S
Longitude: 151°01'12.8"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.50	150			Auger - Solid Flight
1		Annulus	Waterworn/Rounded	3.00	3.50				Ungraded
1	1	Casing	P.V.C.	0.00	3.50	60			Seated on Bottom, Screwed
1	1	Opening	Screen	3.50	6.50	60		0	PVC, Screwed, A: 0.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
5.00	6.50	1.50	Unknown						

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.00	2.00	CLAY	Clay	
2.00	7.00	5.00	SHALE GREY	Shale	

***** End of GW110568 *****

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Appendix C Aerial and NearMap Imagery

18 JULY 2016 NEARMAP IMAGERY: EASTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

10 APRIL 2021 NEARMAP IMAGERY: EASTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

17 FEBRUARY 2022 NEARMAP IMAGERY: EASTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

4 JUNE 2022 NEARMAP IMAGERY: EASTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 31/05/2021
Drawn By: AS	Checked By: SG
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 618 and 626 Old Northern Road, Dural, NSW

Appendix C

18 JULY 2016 NEARMAP IMAGERY: WESTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

10 APRIL 2021 NEARMAP IMAGERY: WESTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

17 FEBRUARY 2022 NEARMAP IMAGERY: WESTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

4 JUNE 2022 NEARMAP IMAGERY: WESTERN PORTION OF 21 DERRIWONG STREET AND 618 OLD NORTHERN ROAD

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 5/07/2022
Drawn By: SG	Checked By: SM
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 618 and 626 Old Northern Road, Dural, NSW

Appendix C

18 JULY 2016 NEARMAP IMAGERY: 626 OLD NORTHERN ROAD AND 27 DERRIWONG STREET

10 APRIL 2021 NEARMAP IMAGERY: 626 OLD NORTHERN ROAD AND 27 DERRIWONG STREET

17 FEBRUARY 2022 NEARMAP IMAGERY: 626 OLD NORTHERN ROAD AND 27 DERRIWONG STREET

4 JUNE 2022 NEARMAP IMAGERY: 626 OLD NORTHERN ROAD AND 27 DERRIWONG STREET

JBS&G

Job No: 60935	
Client: Legacy	
Version: Rev A	Date: 5/07/2022
Drawn By: SG	Checked By: SM
Not to Scale	
Coord. Sys n/a	

21 and 27 Derriwong Road and 618 and 626 Old Northern Road, Dural, NSW

Appendix C

Legend

Approximate Site Boundary

JBS&G

Job No: 60935

Client: Legacy Properties

Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG

Scale 1:4,000

0 60 120

metres

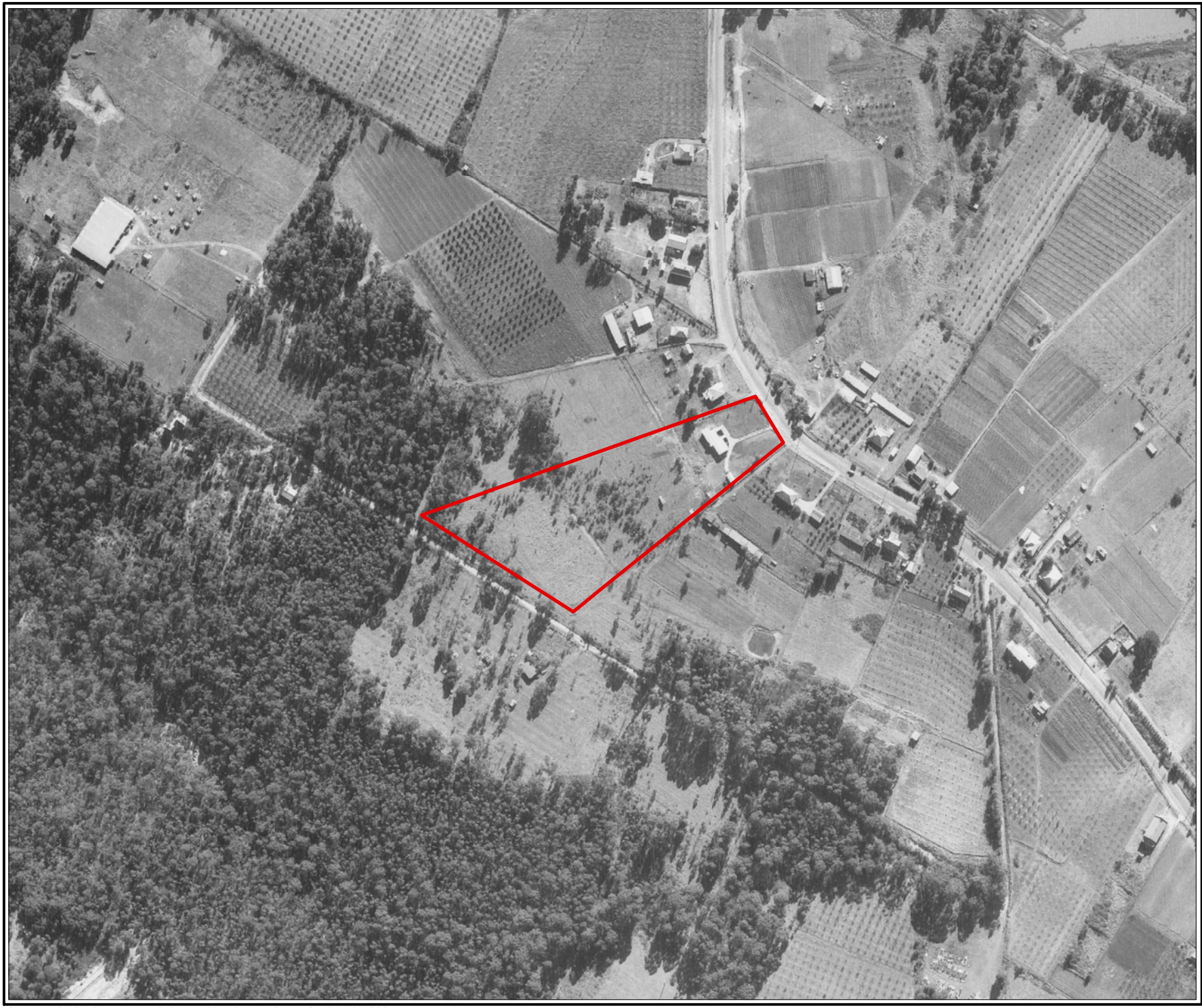
Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1947

AERIAL 1947

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1947.mxd
Reference: NSW Government | Copyright © Spatial Services 2022



Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1961

AERIAL 1961

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1961.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935

Client: Legacy Properties

Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG

Scale 1:4,000

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1965

AERIAL 1965

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1965.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1975

AERIAL 1975

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1975.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1982

AERIAL 1982

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1982.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 1/09/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 1994

AERIAL 1994

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_1994.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2004

AERIAL 2004

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_2004.mxd
Reference: NSW Government | Copyright © Spatial Services 2022

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2012

AERIAL 2012

File Name: N:\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_2012.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 20121121)

Legend

Approximate Site Boundary

JBS&G

Job No: 60935	
Client: Legacy Properties	
Version: Aerial	Date 30/08/2022
Drawn By: YY	Checked By: SG
Scale 1:4,000	

0 60 120

metres

Coord. Sys. GDA 1994 MGA Zone 56

614 Old Northern Road
Dural, NSW

HISTORICAL AERIAL PHOTOGRAPH - 2022

AERIAL 2022

File Name: \\JBSG-NSW-FS01\Company Data\Projects\Legacy Properties\60935 Old Northern Road DD DSI\GIS\Maps\Aerials\60935_2022.mxd
Reference: Nearmap - www.nearmap.com.au (Capture Date: 20220824)

Appendix D Historical Land Title Records

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

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

Summary of Owners Report

NSW LRS **Sydney**

Address: 614 Old Northern Road, Dural

Description: - Lot Y2 D.P. 91653

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	As regards the part numbered (1) on the attached Cadastral Records Enquiry Report	
29.10.1918 (1918 to 1954)	Ernest William Cusbert (Orchardist)	Book 1142 No. 683
	As regards the part numbered (2) on the attached Cadastral Records Enquiry Report	
26.05.1920 (1920 to 1929)	Howard Robert Cusbert (Orchardist)	Book 1187 No. 895
27.07.1929 (1929 to 1954)	Ernest William Cusbert (Orchardist)	Book 1569 No. 829
	Continued as regards the whole of the subject land	
23.12.1954 (1954 to 1957)	Norman Oswald Hudson (Company Director)	Book 2318 No. 662
01.02.1957 (1957 to 1959)	Wesley David Girvan (Company Director)	Book 2405 No. 277
20.05.1959 (1959 to1970)	Robert Hillary Bruce (Company Director) Ruth Isabel Bruce (Married Woman)	Book 2484 No. 572 Now Volume 8311 Folio 222
01.10.1970 (1970 to 1977)	Phillip John Vercoe (Dry Cleaner) Noelene Frances Vercoe (Married Woman)	Volume 8311 Folio 222
06.07.1977 (1977 to 1984)	Kenneth Charles Gazzard (Interior Decorator)) Helen Anne Gazzard (Married Woman)	Volume 8311 Folio 222
13.06.1984 (1984 to 1995)	James Terrance Burgess Wendy Christine Burgess	Volume 8311 Folio 222 Now Y2/91653
09.11.1995 (1995 to date)	# Joseph Moussa # Josephine Moussa	Y2/91653

# Denotes Current Registered Proprietors

Leases: - NIL

Easement: -

- 06.07.1977 (Q 53682 & D.P. 450525) Easement for Transmission Line 15.24 metres wide.
- 22.08.2006 (AC 530267) Easement for Drainage 1.5 metres wide.

Yours Sincerely
Mark Groll
29 August 2022

Cadastral Records Enquiry Report : Lot Y2 DP 91653

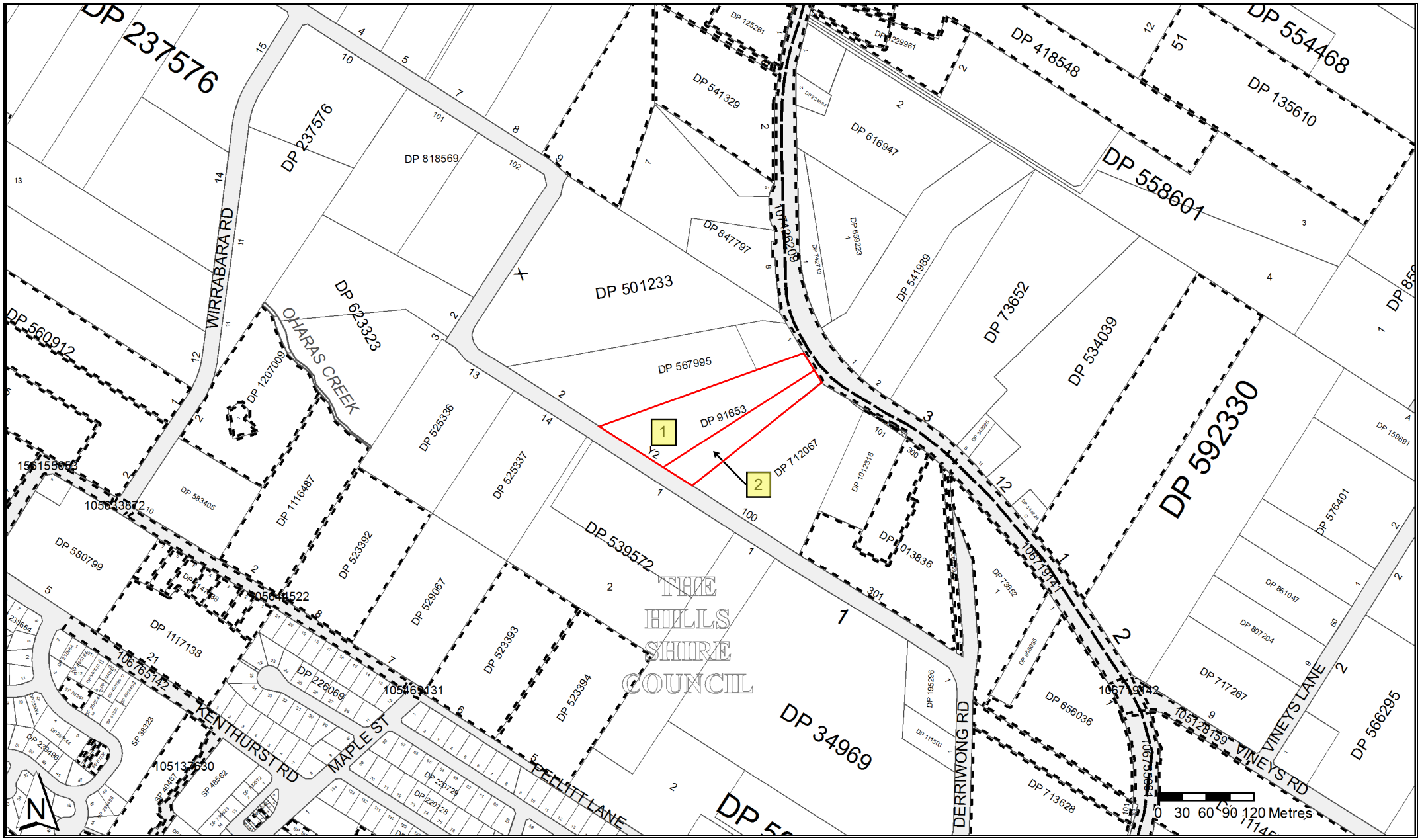
Ref : 614 Old Northern Road

Locality : DURAL

Parish : NELSON

LGA : THE HILLS SHIRE

County : CUMBERLAND



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

Req:R372773 /Doc:DP 0091653 P /Rev:06-Mar-2019 /NSW LRS /Prt:29-Aug-2022 11:11 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:614 Old Northern Road

DP 91653

C

6

Plan Form No. 5 (for Appns. etc.)

(20928)

Municipality of
Shire of Baulkham Hills
at Dural

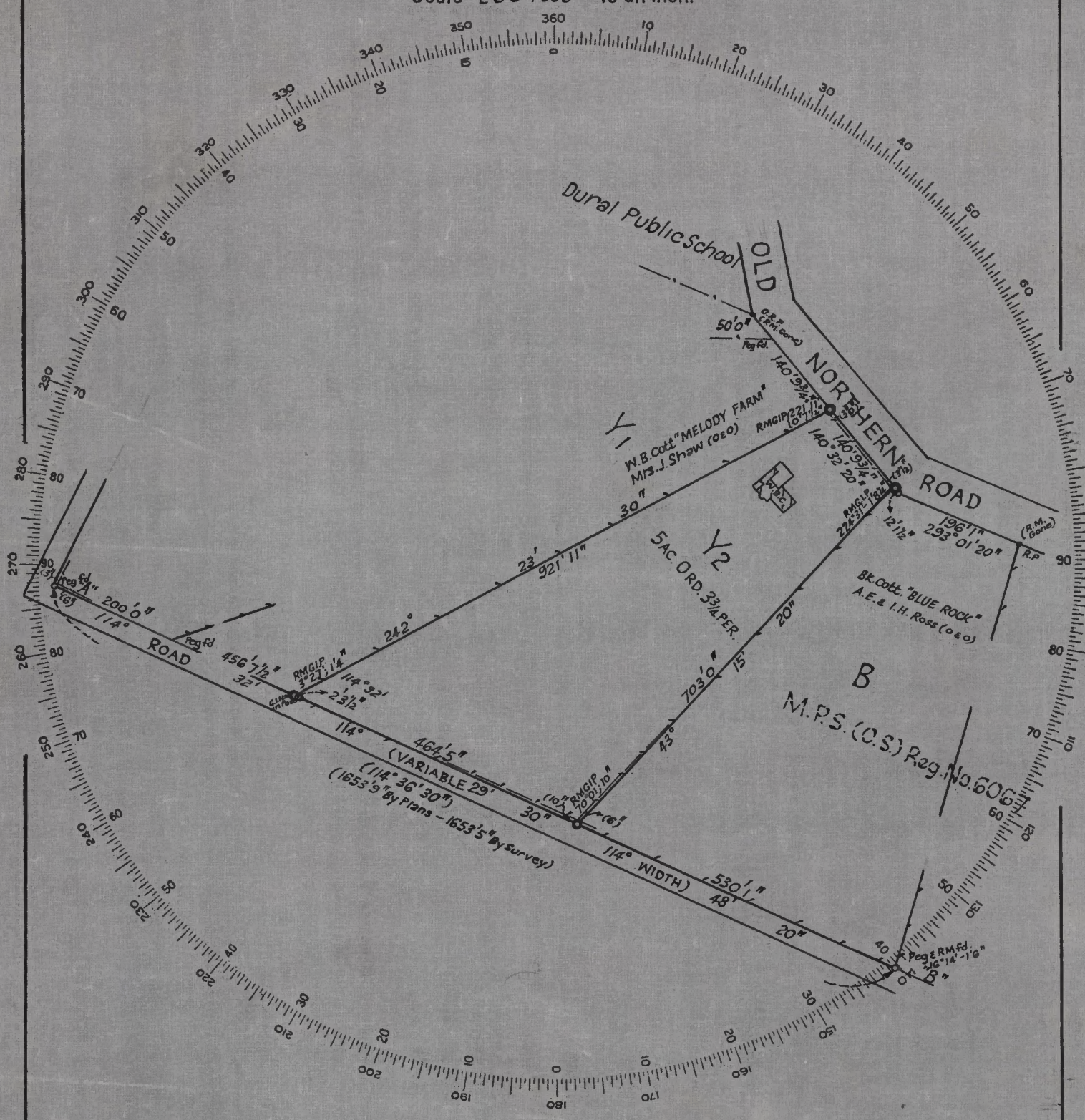
P.A. 41653
Ph

PLAN

of Lot Y2. in Misc. Plan of Subn (O.S.) Reg. No. 10427

Parish of Nelson County of Cumberland

Scale 200 Feet to an Inch.



I, Walter Ross Hardy

of 92 Pitt St., Sydney

a surveyor registered under the Surveyors Act, 1929-1946, hereby certify that the survey represented in this plan is accurate and has been made * (1) by me (2) ~~under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on † 11th January 1960

(Signature) Ross Hardy

Surveyor registered under the Surveyors Act, 1929-46.

Azimuth "A"–"B"

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

† Insert date of survey.

Req:R372772 /Doc:DL Q053682 /Rev:20-Oct-1997 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:1 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:614 Old Northern Road

RP 13A

P1388

'77 12 50

NEW SOUTH WALES SOUTH WALES 3750

Q053682

OFFICE USE ONLY

A E

$36

MEMORANDUM OF TRANSFER

REAL PROPERTY ACT STAMP DUTY

This form is for use where the short form of transfer is unsuitable.

Typewriting and handwriting should be clear, legible and in permanent black non-copying ink. No alterations should be made by erasure; the words rejected must be ruled through and verified by signature or initials in the margin.

(a) Full name, address and occupation of transferor.

(a) PHILLIP JOHN VERCOE of Mortlake, Dry Cleaner and NOELENE FRANCES VERCOE his wife

hereinafter referred to as the TRANSFEROR

(b) If a less estate strike out in fee simple and add appropriate estate.

being registered proprietor of an estate in fee simple(b)

in the land hereinafter described, subject to the following encumbrances and interests

(c) A short note will suffice. If an encumbrance is not yet registered particulars sufficient for identification must be furnished.

(c) Mortgage N63431 to ~~Timlon~~ Limlaw Nominees Pty. Ltd.

in consideration of THREE THOUSAND DOLLARS ($ 3,000.00)

(d) Insert appropriate words. If desired, this space may be used in the case of a transfer by direction.

(the receipt whereof is hereby acknowledged), paid to the transferor by(d) THE PROSPECT COUNTY COUNCIL and grants hereby transfers to

(e) Full name, address and occupation of transferee. If more than one transferee state whether joint tenants or tenants in common. Unless otherwise stated tenants in common will be presumed to hold in equal shares.

(e) THE PROSPECT COUNTY COUNCIL of 10 Smith Street, Parramatta

hereinafter referred to as the TRANSFEREE

out of all such Estate and Interest

an estate in ~~fee simple~~(b)

in the land described in the following schedule

(f) Insert lot and plan number, section &c. See also sections 327 and 327AA Local Government Act, 1919.

Reference to title		Whole or Part	Description of land if part only(f)	County	Parish
Volume	Folio				
8311	222	WHOLE	Being that area of land shown as "Proposed Easement for Transmission Line 15.24 Wide" on the plan annexed hereto marked with the letter "A" and being part of Lot Y2 in Deposited Plan 91653 (hereinafter called "the servient tenement".)	CUMBERLAND	NELSON

PLAN REFILED AS D.P 450525

K 1169 BT 4974

RULE UP ALL BLANKS

Req:R372772 /Doc:DL Q053682 /Rev:20-Oct-1997 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:2 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:614 Old Northern Road

(b)

(a) Here insert any easement restrictive covenants exceptions intended to Included. Easemen restrictive covena comply with section 88 the Conveyancing Act, 19 If the space provided insufficient, additional shee of the same size and quali of paper as this form shou be used. A binding marg of 1½ inches and oth margins of not less tha ½ inch should be preserve Each additional sheet mu be signed by the parties an the attesting witnesses.

full and free right leave liberty and licence for the Transferee and its successors to erect construct place repair renew maintain use and remove electricity transmission mains wires cables towers poles and ancillary works on the surface, undersurface, or subsoil of the servient tenement for the transmission of electricity and for purposes incidental thereto through and/or in and/or over and/or along the servient tenement and to cause or permit electricity to flow or be transmitted through and along the said transmission mains wires and cables and to cut or trim or lop trees, branches and other growths or foliage and to remove any other obstructions of any kind whatsoever which now or at any time hereafter may overhang encroach or be in or on the servient tenement and which may or may be likely to interfere with any right leave liberty or licence granted hereunder and for any of the purposes aforesaid for the Transferee and every person authorised by it to enter into and upon the servient tenement or any part thereof at all reasonable times and to remain there for any reasonable time with surveyors workmen vehicles things or persons and to bring and place and leave thereon or remove therefrom all necessary materials machinery implements and things provided that the Transferee and the persons authorised by it will take all reasonable precautions to ensure as little disturbance as possible to the surface of the servient tenement and will restore that surface as nearly as practicable to its original condition AND the Transferor hereby covenants with the Transferee THAT the Transferor will not erect or permit to be erected any building or other erection of any kind or description on over or under the servient tenement or alter the surface level thereof or carry out any form of construction affecting the surface, undersurface or subsoil thereof without the Transferee's permission in writing being first had and obtained PROVIDED that anything permitted by the Transferee under the foregoing covenant shall be executed in all respects in accordance with the reasonable requirements of the Transferee and to the reasonable satisfaction of the Engineer of the Transferee for the time being.

Req:R372772 /Doc:DL Q053682 /Rev:20-Oct-1997 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:3 of 4
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Dated at SYDNEY this 11TH day of NOVEMBER 1976

(b) Signed in my presence by the transferor who is personally known to me

John Knox
Signature of witness

JOHN KNOX
Name of witness (BLOCK LETTERS)

CHARTERED ACCOUNTANT
Qualification of witness

(i)

Transferor ATTORNEY FOR PHILLIP J. VERCOE & NOELENE F. VERCOE

SIGNED for and on behalf of)
)
THE PROSPECT COUNTY COUNCIL:)

(b) Signed ~~in my presence by the transferee who is personally known to me~~

Signature of witness

Name of witness (BLOCK LETTERS)

Address of witness

(i) Accepted and certified correct for the purposes of the Real Property Act, 1900.

Solicitor for *Transferee*

LIMLAW NOMINEES PTY. LIMITED as Mortgagee under Registered Mortgage No. N63431 hereby consents to the registration of the within instrument and has affixed its Common Seal by the authority of the Board in the presence of :

Director

Director

LIMLAW NOMINEES PTY. LIMITED Common Seal

of of execution ally be required acknowledged f the following being a party to to whom the known:

executed in New Wales — bank barrister, clerk of sessions, con- officer in the e Force of the ommonwealth of Australia, sioner for taking ts, headmaster of a judge, justice of the magistrate, mayor or hief officer of any government con- n, medical prac- er, member of liament of the Commonwealth or of a State, ber of the police e of the Commonwealth or of a State or a Territory, minister of religion, notary public, postmaster, solicitor, town or shire clerk or other executive officer administering local government;

Where executed in any part the Commonwealth of alia or its Territories in any part of the British Commonwealth— of the persons referred ve, and in addition, an olian or British r Officer exercising tions in the part, ernor, Government dent, Chief Secretary or Registrar of Titles of the part;

ere executed in foreign ntry—an Australian or Consular Officer ising his functions in country, commissioned er in the Defence Force he Commonwealth of alia, commissioner for affidavits, judge, of the peace, rate, mayor or other officer of any local ment corporation, in charge of a police notary public, town g clerk or other ive officer administering local government.

t attestation clause necessary.

Real Property ires that this signed by the where his be obtained and delay, or con- ins his own name, be typewritten below his hat of his ess, falsely or ntifying is liable s provided by

essed by any son not being lling.

Req:R372772 /Doc:DL Q053682 /Rev:20-Oct-1997 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:4 of 4
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Q 053682

DEPARTMENTAL USE ONLY

TRANSFER and grant of proposed east. for transmission line

Checked

Passed

Signed

REGISTERED

6-7-1977

Registrar General

With consent of mtgee in mtge. No. N63431

TO BE COMPLETED BY LODGING PARTY

Lodged by D.O. Maclaurin & Co,

Address: 23H Merrylands Rd, Merrylands.

Phone No.: 682-3777.

Documents lodged herewith

1. CA Image

2.

3.

4.

5.

Received Documents

Receiving Clerk

AUTHORITY FOR USE OF INSTRUMENT OF TITLE(l)

Authority is hereby given for the use of

(Insert reference to certificates, grants or dealings) lodged

in connection with (Insert number of plan or dealing) for the

registration of this dealing and for delivery to

(BLOCK LETTERS)

Signature

Name (BLOCK LETTERS)

(l) Unless the instrument of title has been lodged by the person lodging the dealing, or its use has been authorised previously, the authority must be furnished by the person otherwise entitled to delivery of the certificate of title, grant &c.

MEMORANDUM AS TO NON-REVOCATION OF POWER OF ATTORNEY

(To be signed at the time of executing the within dealing)

The undersigned states that he has no notice of the revocation of the Power of Attorney registered No. 93 BK 3257 Miscellaneous Register under the authority of which he has just executed the within dealing.

Signed at Sydney

the 11TH day of NOVEMBER 1976.

Signature of attorney

Signature of witness

CERTIFICATE OF J.P., &c., TAKING DECLARATION OF ATTESTING WITNESS (m)

I certify that

the attesting witness to this dealing, appeared before me at

the day of 19

and declared that he personally knew

the person signing the same, and whose signature thereto he has attested, and that the name purporting to be such signature of the said

is his own handwriting and that he was of sound mind and freely and voluntarily signed the same.

Signature

Name (BLOCK LETTERS)

Qualification

(m) Not required where dealing attested in accordance with note (h); in other cases to be signed by one of the persons referred to in note (h).

ST 437-1 X 1165 D. WEST, GOVERNMENT PRINTER, 1974

InfoTrack

PLAN FORM 2 "A" — Plan Drawing only to appear in this space — OFFICE USE ONLY

D.P450525

This is the annexure marked "A" referred to in Memorandum of Transfer of even date herewith made between PHILLIP JOHN VERCOE & NOELENE FRANCES VERCOE and THE PROSPECT COUNTY COUNCIL. DATED 11th day of November 1976.

K R SHIRLAW - ATTORNEY FOR PHILLIP JOHN VERCOE AND NOELENE FRANCES VERCOE

Solicitor for the Transferee.

THE COMMON SEAL of LIMLAW NOMINEES PTY. LIMITED was hereunto duly affixed in the presence of :

Director

Director

LIMLAW NOMINEES PTY. LIMITED Common Seal

Council's Certificate

I hereby certify that

*the requirements of the Local Government Act 1919 have been complied with in respect of the registration of this plan and

*the requirements of section 24F of the Metropolitan Water Sewerage and Drainage Act 1924 as amended/Hunter District Water Board (Constitution) Act 1938 as amended have been complied with by the Metropolitan Water Sewerage and Drainage Board/Hunter District Water Board in relation to the proposed road(s) set out hereon.

Solicitor's Ref No

Date

Council Clerk

*The part of road to be dedicated where the applicant is only the owner of the adjoining land is new road or where the land is to be subdivided adjoins both the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

*Delete if inapplicable.

M M

2

D P 567995

Y2

D P 91653

D P 550256

C.T. VOL. 8311 FOL. 222

PROPOSED TRANSMISSION LINE EASEMENT 15.24 WIDE

DERRIWONG LANE

30° 117.55 23° 15.42 14° 30° 11 10° 102.345 108.07 15° 17.25 22°30' 11.94 141.555 29° 29°

LODGE WITH DEALING

Table of mm

Q53682

D.P. 450525

PLAN OF PROPOSED EASEMENT FOR TRANSMISSION LINE 15.24 WIDE WITHIN LOT Y2 D.P 91653

Reduction Ratio 1 800 m

Area/Shire City BAULKHAM HILLS

Locality DURAL

Parish NELSON

County CUMBERLAND

I HUGH CAMPBELL McCUBBEN of 7 BEVANS RD, GALSTON a surveyor registered under the Surveyors Act 1929 as amended hereby certify that (*delete whichever is inapplicable) * the survey represented by this plan was made by me or under my supervision and is accurate and the survey was completed on 3-2-1976 / * the survey represented by this plan was compiled from D.P 91653 and is accurate and complies with the requirements of the Surveyors Act 1929 as amended.

Signature

Surveyor registered under the Surveyors Act 1929 as amended

Datum Line of Azimuth

*Strike out inapplicable clauses

Parish for use only where a statement is required to be inserted to dedicate public roads or to create public reserves drainage reserves easements or restrictions as to user

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

FILE No. 69/C1/20

SURVEYOR'S REFERENCE RP 1370

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

I, Bruce Richard Davies, Under Secretary for Lands and Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this day.

1st December, 1983

Req:R373459 /Doc:DP 0450525 P /Rev:30-Dec-1992 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:57 /Seq:1 of 1
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Req:R372771 /Doc:DL AC530267 /Rev:23-Aug-2006 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:1 of 2
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Form: 01TG
Licence: 01-05-042
Licensee: Peter Dawson & Associates

TRANSFER GRANTING EASEMENT

AC530267X

New South Wales
Real Property Act 1900

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required 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.

(A) TORRENS TITLE	Servient Tenement (land burdened)	Dominant Tenement (land benefited)
	Y2/91653	1/567995

(B) LODGED BY	Delivery Box	Name, Address or DX and Telephone	CODE
	629W	123828D Galilee Solicitors Reference: 384/20	TG

(C) TRANSFEROR: Joseph MOUSSA and Josephine MOUSSA

(D) The transferor acknowledges receipt of the consideration of $20,000.00 and transfers and grants

(E) DESCRIPTION OF EASEMENT: Drainage easement shown as 'Proposed Easement for Drainage 1.5wide' on the plan annexed hereto and marked "A"

out of the servient tenement and appurtenant to the dominant tenement.

(F) Encumbrances (if applicable):

(G) TRANSFEREE: Maria Chris GIALOURIS

DATE 19/7/06

(H) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness: ARobledo
Name of witness: ANNE ROBLEDO
Address of witness:
Shop6 The Village Green
22 Kenthurst Rd
ROUND CORNER NSW 2158

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor: J. MOUSSA J. Moussa

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

Signature:
Signatory's name: Ian Abelitis
Signatory's capacity: Solicitor for the Transferee

SM99 ✓ CT prod by IW - Peter Dawson + Assoc. 19/7/06
DX 29907
MT DRUITT

All handwriting must be in block capitals.

Req:R372771 /Doc:DL AC530267 /Rev:23-Aug-2006 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:11 /Seq:2 of 2
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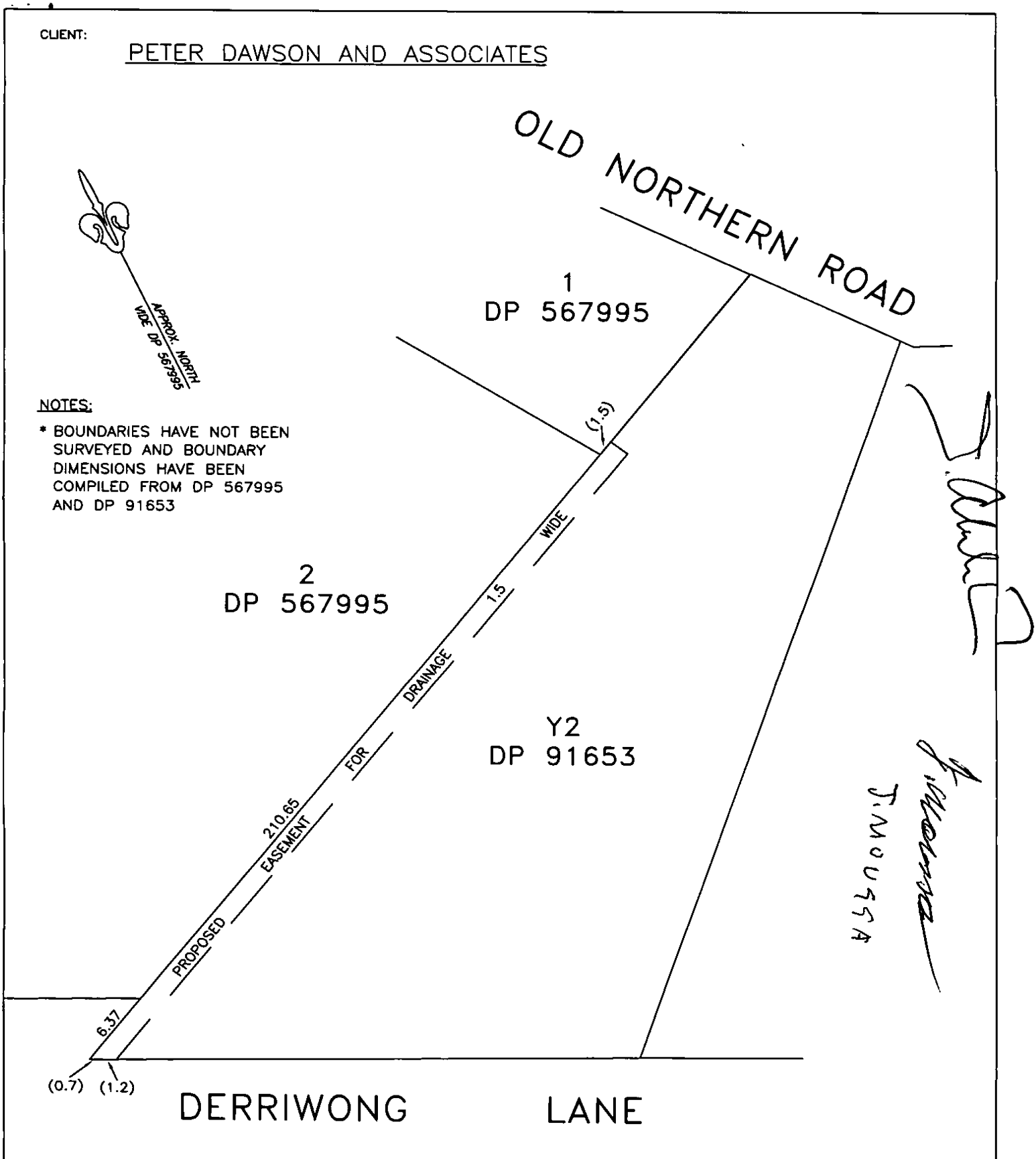
CLIENT:

PETER DAWSON AND ASSOCIATES



PLAN SHOWING PROPOSED EASEMENT OVER LOT Y2 DP 91653 OLD NORTHERN ROAD DURAL	DATE: 18 MAY 2006	REFERENCE: 200542	PREPARED BY QASCO (N.S.W.) PTY LTD CONSULTING SURVEYORS 12/9 SEVEN HILLS ROAD BAULKHAM HILLS (PH) 02 8852 7000 (FAX) 02 8852 7090
	A4 SHEET 1 OF 1	NOT TO SCALE	

LAND REGISTRY SERVICES Historical Search

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
29/8/2022 11:10AM

FOLIO: Y2/91653

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 8311 FOL 222

Recorded	Number	Type of Instrument	C.T. Issue
31/8/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
11/10/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
12/11/1991	E52390	DISCHARGE OF MORTGAGE	
12/11/1991	E52391	DISCHARGE OF MORTGAGE	
12/11/1991	E52392	MORTGAGE	EDITION 1
9/11/1995	O673400	DISCHARGE OF MORTGAGE	
9/11/1995	O673401	TRANSFER	
9/11/1995	O673402	MORTGAGE	EDITION 2
6/11/1998	5379420	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	EDITION 3
2/6/1999	5870412	DISCHARGE OF MORTGAGE	EDITION 4
22/8/2006	AC530267	TRANSFER GRANTING EASEMENT	EDITION 5

*** END OF SEARCH ***

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Received: 29/08/2022 11:10:26

Req:R372764 /Doc:DL 0673401 /Rev:25-Feb-2010 /NSW LRS /Pgs:ALL /Prt:29-Aug-2022 11:10 /Seq:1 of 1
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97-01T

Licence Number
10V/0096/95

TRANSFER

Real Property Act 1900

0
673401 W

(1)

Office of S... ...

N.S.W. STAMP DUTY
250795 0724 04 20099138O/03 $2.00

(A) **LAND TRANSFERRED**

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

FOLIO IDENTIFIER Y2/91653

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
37	Westpac REFERENCE (max. 15 characters): Z73322103 P2

(C) **TRANSFEROR** JAMES TERRANCE BURGESS and WENDY CHRISTINE BURGESS

(D) acknowledges receipt of the consideration of $605,000.00

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

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

(F) **TRANSFEREE**

T TS (s713 LGA) TW (Sheriff)	JOSEPH MOUSSA and JOSEPHINE MOUSSA

(G) **TENANCY:** JOINT TENANTS

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. **DATE** 28/9/95

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

m m Rhodale J.P.
Signature of Witness

MARILYN MARY REKDALE
Name of Witness (BLOCK LETTERS)

17 SCHOOL RD EALSTON.
Address of Witness

Signature of Transferor

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

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

Solicitor for ~~XXXXXXXX~~ Transferee S
STEPHEN FONG

0295LTO

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

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

LAND REGISTRY SERVICES

Title Search

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: Y2/91653

SEARCH DATE	TIME	EDITION NO	DATE
29/8/2022	11:10 AM	5	22/8/2006

LAND

LOT Y2 IN DEPOSITED PLAN 91653
AT DURAL
LOCAL GOVERNMENT AREA THE HILLS SHIRE
PARISH OF NELSON COUNTY OF CUMBERLAND
TITLE DIAGRAM DP91653

FIRST SCHEDULE

JOSEPH MOUSSA
JOSEPHINE MOUSSA
AS JOINT TENANTS (T O673401)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 Q53682 EASEMENT FOR TRANSMISSION LINE AFFECTING THAT PART OF THE LAND WITHIN DESCRIBED SHOWN AS 15.24M WIDE IN DP450525
3 AC530267 EASEMENT FOR DRAINAGE 1.5 METRE(S) WIDE AFFECTING THE PART SHOWN AS "PROPOSED EASEMENT FOR DRAINAGE 1.5 WIDE" IN PLAN WITH AC530267

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* 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. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Received: 29/08/2022 11:10:10

Appendix E EPA Records

Search results

Your search for: **General Search** with the following criteria

Suburb - Dural

returned 3 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
1559634	PET RESORTS OF AUSTRALIA PTY LIMITED	425 Galston Road , DURAL, NSW 2158	s.91 Clean Up Notice	Issued	22 Dec 2017
11358	TRANSGRID	1103 Old Northern Road, DURAL, NSW 2158	POEO licence	No longer in force	28 Mar 2001
1034948	TRANSGRID	1103 Old Northern Road, DURAL, NSW 2158	s.58 Licence Variation	Issued	27 Feb 2004

01 September 2022

Search results

Your search for:Suburb: DURAL

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

1 September 2022

For business and industry
For local government

Contact us

131 555 (tel:131555)

Online (https://yoursay.epa.nsw.gov.au/epa-website-feedback)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Accessibility (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index)
Disclaimer (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/disclaimer)
Privacy (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/privacy)
Copyright (https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/copyright)

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(https://au.l environmer protection- auth rity- (https:// ps://twitter.

Background

A strategy to systematically prioritise, assess and respond to notifications under Section 60 of the ***Contaminated Land Management Act 1997*** (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under ***Government Information (Public Access) Act 2009***.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

After receiving a report, the first step is to confirm that the report does not relate to a pollution incident. The Protection of the Environment Operations Act 1997 (POEO Act) deals with pollution incidents, waste stockpiling or dumping. The EPA also has an incident management process to manage significant incidents (https://www.epa.nsw.gov.au/reporting-and-incidents/incident-management).

In many cases, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any significant risks for the community or environment. Such sites may still need to be cleaned up, but this can be done in conjunction with any subsequent building or redevelopment of the land. These sites do not require intervention under the CLM Act, and are dealt with through the planning and development consent process. In these cases, the EPA informs the local council or other planning authority, so that the information can be recorded and considered at the appropriate time (https://www.epa.nsw.gov.au/your-environment/contaminated-land/managing-contaminated-land/role-of-planning-authorities).

Where indications are that the contamination could cause actual harm to the environment or an unacceptable offsite impact (i.e. the land is 'significantly contaminated'), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site. If the reported contamination could present an immediate or long-term threat to human health NSW Health will be consulted. SafeWork NSW and Water NSW can also be consulted if there appear to be occupational health and safety risks or an impact on groundwater quality.

As such, the sites notified to the EPA and presented in the list of contaminated sites notified to the EPA are at various stages of the assessment and remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The list provides an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the person who notified the site.

The following questions and answers may assist those interested in this issue.

Frequently asked questions

Why does my land appear on the list of notified sites?

Your land may appear on the list because:

- the site owner and/or the polluter has notified the EPA under section 60 of the CLM Act
- the EPA has been notified via other means and is satisfied that the site is or was contaminated.

If a site is on the list, it does not necessarily mean the contamination is significant enough to regulate under the CLM Act.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that EPA is aware of. If a site is not on the list, it does not necessarily mean the site is not contaminated.

The EPA relies on responsible parties and the public to notify contaminated sites.

How are notified contaminated sites managed by the EPA?

There are different ways the EPA can manage notified contaminated sites. Options include:

• regulation under the CLM Act, POEO Act, or both
• notifying the relevant planning authority for management under the planning and development process
• managing the site under the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.

There are specific cases where contamination is managed under a tailored program operated by another agency (for example, the Resources & Geoscience's Legacy Mines Program).

What should I do if I am a potential buyer of a site that appears on the list?

You should seek advice from the seller to understand the contamination issue. You may need to seek independent contamination or legal advice.

The information provided in the list is indicative only and a starting point for your own assessment. Land contamination from past site uses is common, mainly in urban environments. If the site is properly remediated or managed, it may not affect the intended future use of the site.

Who can I contact if I need more information about a site?

You can contact the Environment Line at any time by calling 131 555 or by emailing info@environment.nsw.gov.au.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

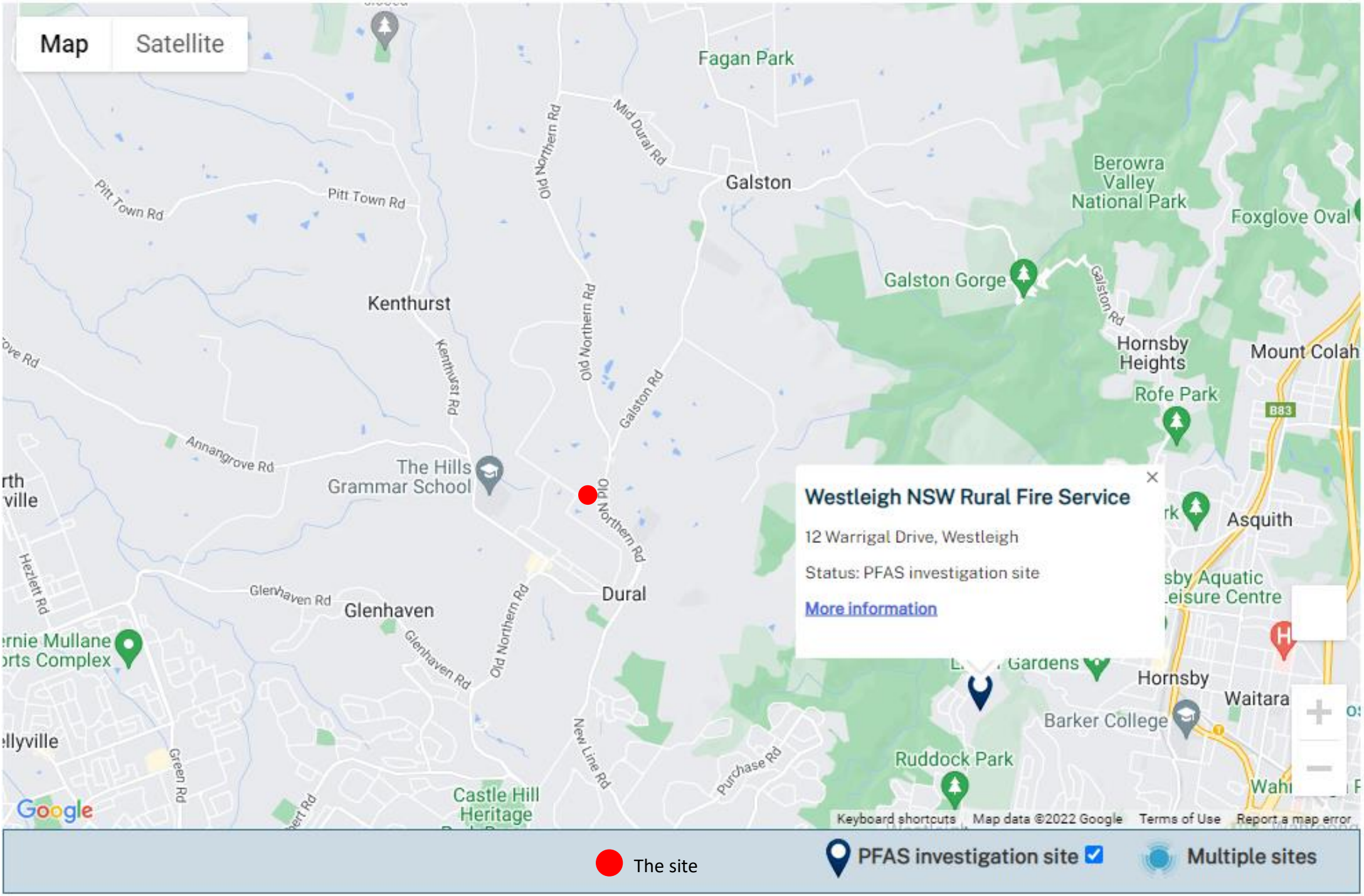
1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
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*.
Under Preliminary Investigation Order	The EPA has issued a Preliminary Investigation Order under s10 of the *Contaminated Land Management Act 1997*, to obtain additional information needed to complete the assessment.
Regulation under 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.

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.
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.
Contamination currently regulated under POEO Act	Contamination is currently regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA as the appropriate regulatory authority reasonably suspects that a pollution incident is occurring/ has occurred and that it requires regulation under the POEO Act. The EPA may use environment protection notices, such as clean up notices, to require clean up action to be taken. Such regulatory notices are available on the POEO public register.
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 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.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
DUNMORE	Equestrian Centre	71 Fig Hill LANE	Unclassified	Regulation under CLM Act not required	-34.62313393	150.8421544
DURAL	Caltex Dural Service Station	917-923 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.68312075	151.0287519
DURAL	BP Dural Service Station	580 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69569985	151.0283357
DURAL	Caltex Service Station	530 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
DURAL	Woolworths Service Station	532 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
DURAL	21 John Radley Avenue, Dural	21 John Radley AVENUE	Landfill	Under assessment	-33.71718718	151.0331317
DURI	Duri Store	13 Railway AVENUE	Service Station	Contamination currently regulated under CLM Act	-31.21710021	150.8183675
EAGLE VALE	BP Service Station	Corner Eagle Vale Drive and Gould ROAD	Service Station	Regulation under CLM Act not required	-34.03128043	150.816363
EARLWOOD	RTA Land	3 Jackson PLACE	Unclassified	Contamination currently regulated under CLM Act	-33.92724512	151.1433382
EARLWOOD	Wolli Creek Aqueduct	Unwin STREET	Unclassified	Regulation under CLM Act not required	-33.92788788	151.1480807
EARLWOOD	2, 4 & 6 Unwin Street Earlwood	2, 4 & 6 Unwin STREET	Landfill	Regulation under CLM Act not required	-33.92683761	151.149505
EAST BALLINA	Caltex East Ballina Service Station	34 Links AVENUE	Service Station	Regulation under CLM Act not required	-28.85009113	153.5829246
EAST GOSFORD	Presbyterian Aged Care Facility	8-18 Enid CRESCENT	Landfill	Regulation under CLM Act not required	-33.4376675	151.3577947
EAST GOSFORD	Mobil Service Station	44 Victoria STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.43804781	151.353303
EAST GOSFORD	Hylton Moore Park	Althrop STREET	Landfill	Contamination currently regulated under CLM Act	-33.4352203	151.3601193


Map
Satellite
Fagan Park
Mid Dural Rd
Old Northern Rd
Galston
Berowra Valley National Park
Foxglove Oval
Pitt Town Rd
Galston Gorge
Galston Rd
Kenthurst
Hornsby Heights
Mount Colah
Rofe Park
B83
Annangrove Rd
The Hills Grammar School
Dural
Asquith
Westleigh NSW Rural Fire Service
12 Warrigal Drive, Westleigh
Status: PFAS investigation site
More information
Hezlett Rd
Glenhaven Rd
Glenhaven
Hornsby
Waitara
Barker College
Ruddock Park
Castle Hill Heritage
New Line Rd
Purchase Rd
Green Rd
Google
Keyboard shortcuts
Map data ©2022 Google
Terms of Use
Report a map error
The site
PFAS investigation site
Multiple sites

Appendix F Heritage Records

Search Results

4 results found.

Galston Gorge Road Bridge Galston Rd	Galston, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Glenroy 756 Old Northern Rd	Middle Dural, NSW, Australia	(Rejected Place) Register of the National Estate (Non-statutory archive)
St Judes Anglican Church 965 Old Northern Rd	Dural, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
The Pines - House, Outbuildings and Pine Trees 656 Old Northern Rd	Dural, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Thu Jul 21 11:55:13 2022

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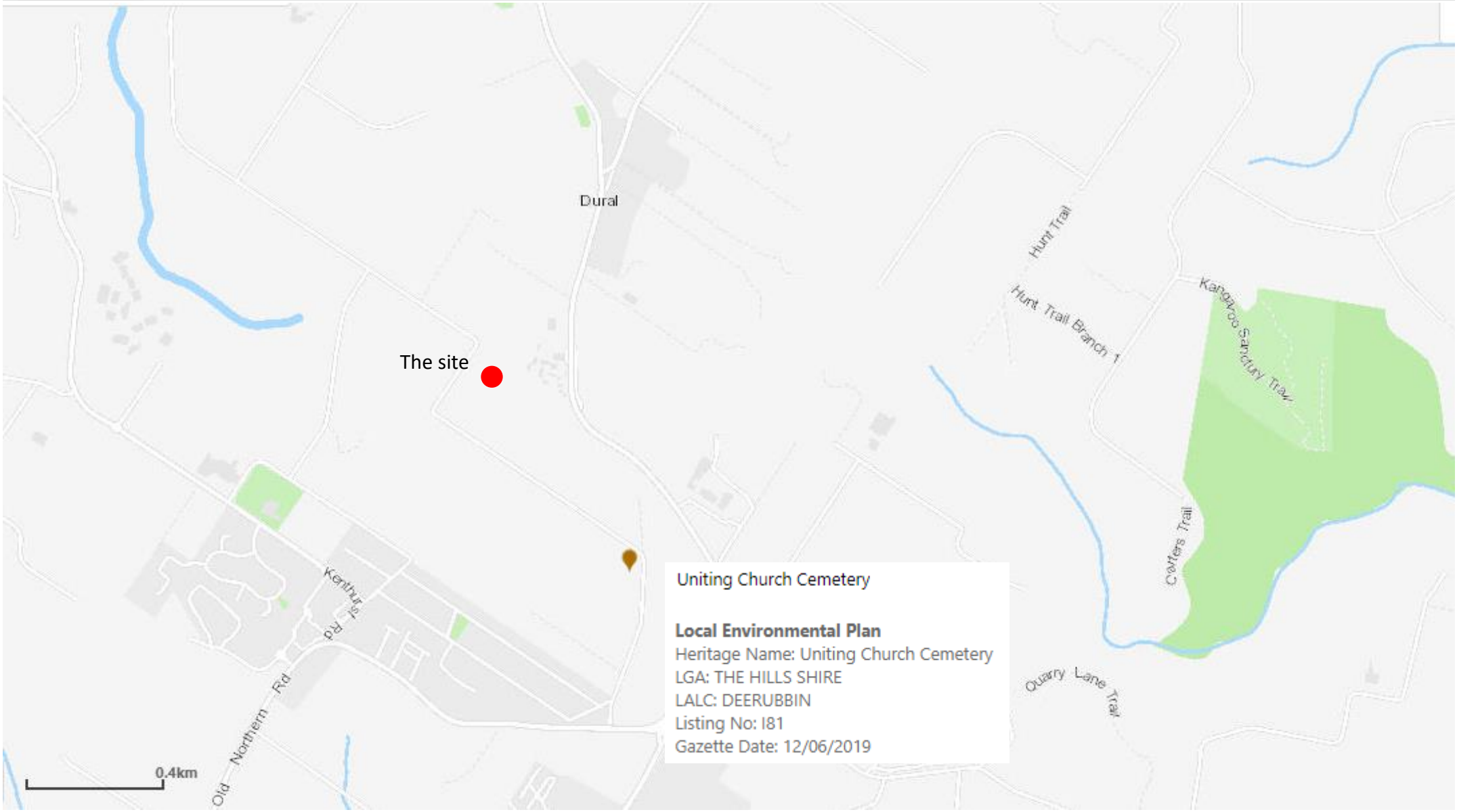
State Heritage Inventory



Appendix G Section 10.7 Planning Certificate

THE HILLS SHIRE COUNCIL
3 Columbia Court, Norwest NSW 2153
PO Box 7064, Norwest 2153
ABN 25 034 494 656 | DX 9966 Norwest

PLANNING CERTIFICATE UNDER SECTION 10.7 (2) & (5)

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AS AMENDED.

Certificate Number:	**73384**
Reference:	60935:223116
Issue Date:	29 August 2022
Receipt No:	6952953
Fee Paid:	$ 156.00

ADDRESS:	614 Old Northern Road, DURAL NSW 2158
DESCRIPTION:	Lot Y2 DP 91653

The land is zoned:
Zone RU6 Transition

The following prescribed matters apply to the land to which this certificate relates:

The Environmental Planning and Assessment Amendment Act 1997 commenced operation on 1 July 1998. As a consequence of this Act, the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment Regulation 2000.

PLEASE NOTE: THIS CERTIFICATE IS AUTOMATICALLY GENERATED. IT MAY CONTAIN EXCESSIVE SPACES AND/OR BLANK PAGES.

THIS CERTIFICATE IS DIRECTED TO THE FOLLOWING MATTERS PRESCRIBED UNDER SECTION 10.7 (2) OF THE ABOVE ACT.

1. Names of relevant planning instruments and DCPs

(1) The name of each environmental planning instrument that applies to the carrying out of development on the land.

(A) **Local Environmental Plans**

The Hills Local Environmental Plan 2019, as amended, applies to all land in the Shire unless otherwise stated in this certificate.

State Environmental Planning Policies

SEPP (Biodiversity and Conservation) 2021 – including but not limited to
Chapter 2 Vegetation in non rural areas
Chapter 6 Bushland in urban areas
Chapter 7 Canal estate development
Chapter 9 Hawkesbury – Nepean River

SEPP (Resilience and Hazards) 2021 – including but not limited to

Chapter 3 Hazardous and offensive development
Chapter 4 Remediation of land

SEPP (Industry and Employment) 2021 – Including but not limited to
Chapter 3 Advertising and signage

SEPP No.65 - Design Quality Of Residential Apartment Development

SEPP (Building Sustainability Index: Basix) 2004

SEPP (Precincts-Central River City) 2021 – Including but not limited to
Chapter 2 State significant precincts

SEPP (Resources and Energy) 2021 – including but not limited to
Chapter 2 Mining, petroleum production and extractive industries
Chapter 3 Extractive industries in Sydney area

SEPP (Transport and Infrastructure) 2021 – including but not limited to
Chapter 2 Infrastructure
Chapter 3 Educational establishments and childcare

SEPP (Exempt and Complying Development Codes) 2008

SEPP (Planning Systems) 2021 – including but not limited to
Chapter 2 State and regional development
Chapter 4 Concurrences and consents

SEPP (Primary Production) 2021 – including but not limited to
Chapter 2 Primary production and rural development

SEPP (Housing) 2021

(2) The name of each **proposed environmental planning instrument** that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Secretary has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

(A) **Proposed Local Environmental Plans**

No Proposed Local Environmental Plans apply to this land.

(B) **Proposed State Environmental Planning Policies**

Draft State Environmental Planning Policy (Environment)
Draft Remediation of Land State Environmental Planning Policy
Draft State Environmental Planning Policy (Short-term Rental Accommodation) 2019
Draft Activation Precincts State Environmental Planning Policy
Draft Housing Diversity State Environmental Planning Policy
Draft Design and Place State Environmental Planning Policy

(3) The name of each development control plan that applies to the carrying out of development on the land.

The Hills Development Control Plan 2012

(4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument.

2. Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP).

(A) The Hills Local Environmental Plan 2019 applies to the land unless otherwise stated in this certificate and identifies the land to be:

Zone RU6 Transition

(B) The purposes for which the instrument provides that development may be carried out within the zone without development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Exempt Development

(C) The purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions

regarding Complying Development

(D) The purposes for which the instrument provides that development is prohibited in the zone:

Refer Attachment 2(B)

(E) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed?

The Hills Local Environmental Plan 2019?

YES

Clause 4.2A of The Hills Local Environmental Plan 2019 provides minimum land dimensions for the erection of a dwelling house on the following zones:

RU1 Primary Production, RU2 Rural Landscape, RU6 Transition, E3 Environmental Management and E4 Environmental Living.

Note: As of 1 December 2021, a reference to an Environment Protection zone E1, E2, E3 or E4 in a document should be taken to be a reference to a Conservation zone C1, C2, C3 or C4. For further information please see Standard Instrument (Local Environmental Plans) Amendment (Land Use Zones) Order 2021 (nsw.gov.au).

Any other Planning Proposal?

NO

(F) Whether the land includes or comprises critical habitat?

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

(G) Whether the land is in a conservation area (however described)?

The Hills Local Environmental Plan 2019?

NO

Any Other Planning Proposal?

NO

(H) Whether an item of environmental heritage (however described) is situated on the land?

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

2A. Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Note: As of 1st March 2022, State Environmental Planning Policy (Sydney Region Growth Centres) 2006 as it applies to The Hills Shire LGA was replaced by State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres. A reference to State Environmental Planning Policy (Sydney Region Growth Centres) 2006 in this document should be taken to be reference to State Environmental Planning Policy (Precincts - Central River City) 2021, Chapter 3 Sydney Region Growth Centres.

To the extent that the land is within any zone (however described) under:

(a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the 2006 SEPP), or*

(b) a Precinct Plan (within the meaning of the 2006 SEPP), or

(c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the ACT.

(A) State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan) applies to the land unless otherwise stated in this certificate and identifies the land to be:

State Environmental Planning Policy (Precincts-Central River City) Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan) does not apply.

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres 2006 (Appendix 10 The Hills Growth Centre Precincts Plan) applies to the land unless otherwise stated in this certificate and identifies the land to be:

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 10 The Hills Growth Centre Precincts Plan) does not apply.

Note: This precinct plan applies to land within the Box Hill Precinct or Box Hill Industrial Precinct.

(B) The purposes for which the instrument provides that development may be carried out within the zone without development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Exempt Development.

(C) The purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Complying Development

(D) The purposes for which the instrument provides that development is prohibited in the zone:

Refer Attachment 2(B)

(E) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed?

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan)?

NO

Any amendments to the relevant planning instrument (Appendix 5 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 10 The Hills Growth Centre Precincts Plan)?

NO

Any amendments to the relevant planning instrument (Appendix 10 The Hills Growth Centre Precincts Plan)?

NO

(F) Whether the land includes or comprises critical habitat?

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 10 The Hills Growth Centre Precincts Plan)?

NO

(G) Whether the land is in a conservation area (however described)?

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 10 The Hills Growth Centre Precincts Plan)?

NO

(H) Whether an item of environmental heritage (however described) is situated on the land?

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 5 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 10 The Hills Growth Centre Precincts Plan)?

NO

3. Complying Development

(1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

Housing Code, Rural Housing Code, Low Rise Housing Diversity Code and Greenfield Housing Code
Complying Development under the Housing Code, Rural Housing Code, Low Rise Housing Diversity Code and Greenfield Housing Code **may be** carried out on the land.

Housing Alterations Code and General Development Code
Complying Development under the Housing Alterations Code and General Development Code **may be** carried out on the land.

Industrial and Business Buildings Code
Complying Development under the Industrial and Business Buildings Code **may be** carried out on the land.

Industrial and Business Alterations, Container Recycling Facilities, Subdivision, Demolition and Fire Safety Codes
Complying Development under the Industrial and Business Alterations, Container Recycling Facilities, Subdivision, Demolition and Fire Safety Codes **may be** carried out on the land.

Note: Where reference is made to an applicable map, this information can be sourced from the following websites:

The Hills Local Environmental Plan 2019 - www.thehills.nsw.gov.au
State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres (Appendix 2 North Kellyville Precinct) or (Appendix 11 The Hills Growth Centre Precincts Plan) – In force legislation - NSW legislation

4, 4A **(Repealed)**

4B. **Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works**

Whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

NO

Note. "Existing coastal protection works" are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the *Local Government Act 1993*.

5. **Mine subsidence**

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Coal Mine Subsidence Compensation Act 2017*?

NO

6. **Road widening and road realignment**

Whether or not the land is affected by any road widening or road realignment under -

(A) Division 2 of Part 3 of the *Roads Act 1993*; or

NO

(B) any environmental planning instrument; or

NO

(C) any resolution of council?

a) The Hills Development Control Plan 2012?

NO

b) Any other resolution of council?

NO

7. Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

(a) adopted by council, or

(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding)?

Council's policies on hazard risk restrictions are as follows:

(i) Landslip

a) By The Hills Local Environmental Plan 2019 zoning?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

b) By The Hills Local Environmental Plan 2019 local provision?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

c) By The Hills Development Control Plan 2012 provision?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

(ii) Bushfire

YES

Please note this is a statement of policy only and NOT a statement on whether or not the property is affected by bushfire. That question is answered in Section 11 of this certificate.

The NSW Rural Fire Service Guidelines entitled 'Planning for Bushfire Protection 2018'. Development subject to bushfire risk will be required to address the requirements in these guidelines and can be downloaded off the RFS web site www.rfs.nsw.gov.au

The Development Control Plan may also contain provisions for development on Bushfire Prone Land and Bushfire Hazard Management. Refer Part 1(3) of this certificate for the applicable Development Control Plan.

(iii) Tidal inundation

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by tidal inundation.

(iv) Subsidence

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by subsidence.

(v) Acid sulphate soils

NO

(vi) Land contamination

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by contamination or potential contamination.

(vii) Any other risk

NO

7A. Flood related development controls

(1) If the land or part of the land is within the flood planning area and subject to flood related development controls.

NO

(2) If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.

UNKNOWN

Please contact Council's Waterways team on 9843 0555 for information on the flood planning area and probable maximum flood.

(3) In this clause—
***flood planning area* has the same meaning as in the Floodplain Development Manual.**
***Floodplain Development Manual* means the *Floodplain Development Manual* (ISBN 0 7347 5476 0) published by the NSW Government in April 2005.**
***probable maximum flood* has the same meaning as in the Floodplain Development Manual.**

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

State Environmental Planning Policy?

NO

Proposed State Environmental Planning Policy?

NO

9. Contributions plans

The name of each contributions plan applying to the land:

THE HILLS SECTION 7.12

9A. Biodiversity Certified Land

Whether the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*?

NO

Note: Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

10. Biodiversity stewardship sites

Whether the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage)?

NO

Note: Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

10A. Native vegetation clearing set asides

Whether the land contains a set aside area under section 60ZC of the *Local Land Services Act 2013* (but only if the council has been notified of the existence of the set aside area by Local Land Services or it is registered in the public register under that section)?

NO

11. Bush fire prone land

Has the land been identified as bush fire prone land?

YES

The land is identified on Council's certified Bush Fire Prone Land map as being partly or wholly bush fire prone land. For details refer to the Bush Fire Prone Land map that can be viewed on Council's website at www.thehills.nsw.gov.au

12. Property vegetation plans

Has the council been notified that a property vegetation plan approved under Part 4 of the *Native Vegetation Act 2003* (and that continues in force) applies to this land?

NO

13. Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on this land (but only if the council has been notified of the order)?

NO

14. Directions under Part 3A

Whether there is a direction by the Minister in force under section 75P (2)(c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect?

NO

15. Conditions for seniors housing

Whether there are any terms of a kind referred to in clause 88(2) of *State Environmental Planning Policy (Housing) 2021*, Chapter 3, Part 5 that have been imposed as a condition of consent after 11 October 2007 in relation to the land?

NO

16. Site compatibility certificates for infrastructure, schools or TAFE establishments

Whether there is a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools or TAFE establishments), of which the council is aware, in respect of proposed development on the land?

NO

17. Site compatibility certificates and conditions for affordable rental housing

(1) Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land?

NO

(2) Whether there are any terms of a kind referred to in clause 21(1) or 40(1) of *State Environmental Planning Policy (Housing) 2021*, Chapter 2, Part 2, Division 1 or 5 that have been imposed as a condition of consent in relation to the land?

NO

18. Paper subdivision information

(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

NO DEVELOPMENT PLAN APPLIES

(2) The date of any subdivision order that applies to the land.

NO SUBDIVISION ORDER APPLIES

(3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

19. Site verification certificates

Whether there is a current site verification certificate, of which the council is aware, in respect of the land?

NO

Note. A site verification certificate sets out the Secretary's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land - see Division 3 of Part 4AA of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.*

As of 1st March 2022, State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 was replaced by State Environmental Planning Policy (Resources and Energy) 2021, Chapter 2 Mining, petroleum production and extractive industries

20. Loose-fill asbestos insulation

Does the land include any residential premises (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989*) that is listed on the Loose-Fill Asbestos Insulation Register that is required to be maintained under that Division?

Council has **not** been notified by NSW Fair Trading that the land includes any residential premises that are listed on the register. Refer to the NSW Fair Trading website at www.fairtrading.nsw.gov.au to confirm that the land is not listed on this register.

Note: There is potential for loose-fill asbestos insulation in residential premises that are not listed on the Register. Contact NSW Fair Trading for further information.

21. Affected building notices and building product rectification orders

(1) Whether there is any affected building notice of which the council is aware that is in force in respect of the land?

NO

(2) (a) Whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with?

NO

(b) Whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding?

NO

(3) In this clause:

affected building notice has the same meaning as in Part 4 of the *Building Products (Safety) Act 2017*.
building product rectification order has the same meaning as in the *Building Products (Safety) Act 2017*.

22. **State Environmental Planning Policy (Western Sydney Aerotropolis) 2020**

Note: As of 1st March 2022, State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 was replaced by State Environmental Planning Policy (Precincts – Western Parkland City) 2021, Chapter 4 Western Sydney Aerotropolis

(a) in an ANEF or ANEC contour of 20 or greater as referred to in clause 19 of that Policy, or

NO

(b) shown on the Lighting Intensity and Wind Shear Map under that Policy, or

NO

(c) shown on the Obstacle Limitation Surface Map under that Policy, or

NO

(d) in the "public safety area" on the Public Safety Area Map under that Policy, or

NO

(e) in the "3 kilometre wildlife buffer zone" or the "13 kilometre wildlife buffer zone" on the Wildlife Buffer Zone Map under that Policy.

NO

Note. The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

NO

(b) that the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

NO

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,

NO

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of the Act – if it is subject to such an order at the date when the certificate is issued,

NO

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of the Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

NO

THIS PART IS DIRECTED TO THE FOLLOWING MATTERS PRESCRIBED UNDER SECTION 10.7 (5) OF THE ABOVE ACT

NOTE: "When information pursuant to Section 10.7 (5) is requested the council is under no obligation to furnish any of the information supplied herein pursuant to that Section. Council draws your attention to Section 10.7 (6), which states that a council shall not incur any liability in respect of any advice provided in good faith pursuant to sub-section (5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter not referred to in this certificate."

A. Whether there are any provisions applying to the land that control the management of trees and bushland?

YES

Part C Section 3 of The Hills Development Control Plan 2012 contain provisions for the control and management of actions in respect of trees and bushland.

B. Does the land contain a foreshore area as identified on The Hills Local Environmental Plan 2019 Foreshore Building Line map?

NO

C. Is the land subject to a listing on a public register maintained by Council under the Protection of the Environment Operations Act 1997?
Note: This information relates specifically to the land and includes any existing or in force environmental notice, civil proceedings or prosecutions under the Act (where notified to Council).

NO

D. Is the land affected by any special provisions of State Environmental Planning Policy (Resources and Energy) 2021 – Chapter 3 Extractive industries in Sydney area?

NO

E. Is the land affected by a restricted development area as identified under The Hills Development Control Plan 2012?

NO

F. Is the land within an area where a Special Infrastructure Contribution, as determined by the Minister for Planning and Environment, applies?

NO

G. Is the land in the vicinity of a heritage item or heritage conservation area as described in The Hills Local Environmental Plan 2019 **OR** State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres?

YES

Clause 5.10 (5) of The Hills Local Environmental Plan 2019 provides specific considerations for development in the vicinity of a heritage item or heritage conservation area.

H. Whether Council has executed a Voluntary Planning Agreement within the meaning of S7.4 of the Environmental Planning and Assessment Act 1979, as amended, in relation to the land?

NO

I. Is the land within or adjacent to the Sydney Metro Northwest as identified on the maps prepared by Transport NSW?

NO

J. Does the land contain a proposed road as identified within a Development Control Plan under State Environmental Planning Policy (Precincts-Central River City) 2021, Chapter 3 Sydney Region Growth Centres?

NO

K. Has Council been notified by NSW Land and Property Information that the land is affected by a plan of acquisition for railway purposes (Sydney Metro Northwest)?

NO

L. Has Council been notified of the land being listed on the NSW Government's Combustible Cladding Register under the Environmental Planning and Assessment Regulation 2000?

NO

Note: There is potential for combustible cladding to be present on premises that are not listed on the Register. Contact Council's Regulatory Team for further information.

THE HILLS SHIRE COUNCIL

This land has frontage to a "Classified Road". Roads and Maritime Services, 27-31 Argyle St, Parramatta, is the responsible authority for classified roads and should be consulted for any road widening proposals.

MICHAEL EDGAR
GENERAL MANAGER

Per:

PLEASE NOTE: COUNCIL RETAINS THE ELECTRONIC ORIGINAL OF THIS CERTIFICATE. WHERE THIS CERTIFICATE REFERS TO INFORMATION DISPLAYED ON COUNCIL'S

WEBSITE OR TO ANY EXTERNAL WEBSITE, IT REFERS TO INFORMATION DISPLAYED ON THE WEBSITE ON THE DATE THIS CERTIFICATE IS ISSUED.

ATTACHMENT 2(B)

Zone RU6 Transition

1 Objectives of zone

- To protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To encourage innovative and sustainable tourist development, sustainable agriculture and the provision of farm produce directly to the public.
- To ensure that development does not have a detrimental impact on the rural and scenic character of the land.

2 Permitted without consent

Bed and breakfast accommodation; Extensive agriculture; Home occupations

3 Permitted with consent

Agricultural produce industries; Artisan food and drink industries; Building identification signs; Business identification signs; Cellar door premises; Cemeteries; Centre-based child care facilities; Community facilities; Dual occupancies (attached); Dwelling houses; Eco-tourist facilities; Environmental facilities; Environmental protection works; Farm buildings; Farm stay accommodation; Flood mitigation works; Garden centres; Home-based child care; Home businesses; Home industries; Information and education facilities; Intensive plant agriculture; Landscaping material supplies; Markets; Oyster aquaculture; Plant nurseries; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Respite day care centres; Restaurants or cafés; Roads; Roadside stalls; Rural industries; Secondary dwellings; Tank-based aquaculture; Veterinary hospitals; Water supply systems

4 Prohibited

Any other development not specified in item 2 or 3

NOTE: This land use table should be read in conjunction with the Dictionary at the end of The Hills LEP 2019 which defines words and expressions for the purpose of the plan.

NOTE: Activities permitted without development consent are still subject to other provisions in Environmental Planning Instruments and/or Acts.

Appendix H Borehole/Test Pit Logs

SOIL BOREHOLE HA01

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of sandstone gravels		HA01_0-0.1		No Odour, Staining or Asbestos.
		0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown/orange/grey, heterogeneous, damp, soft, medium - high plasticity with inclusions of sandstone gravels increasing with depth		HA01_0.2-0.3		No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA02

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2		Fill	Fill - Clay, Dark brown, homogeneous, damp, soft, medium plasticity with inclusions of roots		HA02_0-0.1		No Odour, Staining or Asbestos.
		0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, homogeneous, damp, firm, medium plasticity		HA02_0.2-0.3		No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

SOIL BOREHOLE HA03

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2		Fill	Fill - Clay, Dark brown, homogeneous, damp, soft, medium plasticity with inclusions of roots		HA03_0-0.1		No Odour, Staining or Asbestos.
		0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, homogeneous, damp, firm, medium plasticity		HA03_0.2-0.3		No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

SOIL BOREHOLE HA04

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2		Fill	Fill - Clay, Dark brown, homogeneous, damp, soft, medium plasticity with inclusions of roots		HA04_0-0.1		No Odour, Staining or Asbestos.
		0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, homogeneous, damp, firm, medium plasticity with inclusions of gravels		HA04_0.2-0.3		No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA05

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of roots and gravels		HA05_0-0.1		No Odour, Staining or Asbestos.
		0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, heterogeneous, damp, firm, medium plasticity with inclusions of gravels		HA05_0.2-0.3		No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

SOIL BOREHOLE HA06

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of plastics and gravels		HA06_0-0.1 HA06_0.2-0.3		No Odour, Staining or Asbestos. No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA07

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of roots and gravels		HA07_0-0.1 HA07_0.2-0.3		No Odour, Staining or Asbestos. No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA08

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown/grey, heterogeneous, damp, soft, low plasticity with inclusions of gravels		HA08_0-0.1 HA08_0.2-0.3		No Odour, Staining or Asbestos. No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

SOIL BOREHOLE HA09

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of roots and sandstone gravels		HA09_0-0.1 HA09_0.2-0.3		No Odour, Staining or Asbestos. No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA10

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 13-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4		Fill	Fill - Sand, Yellow, heterogeneous, damp, dense, coarse grained with sandstone rocks and bricks		HA10_0-0.1 HA10_0.2-0.3		No Asbestos observed. Staining and strong hydrocarbon odour No Odour, Staining or Asbestos.
		0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.40 m.				

SOIL BOREHOLE HA11

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of roots and gravels		HA11_0-0.1 HA11_0.2-0.3		No Odour, Staining or Asbestos. No Odour, Staining or Asbestos.
		0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.50 m.				

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SOIL BOREHOLE HA12

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY JBS&G
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Hand Auger
DIAMETER 150 mm

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HA		0.05 0.1 0.15 0.2 0.25 0.3		Fill	Fill - Sandy Clay, Light brown, heterogeneous, dry, soft, low plasticity with inclusions of gravels		HA12_0-0.1		No Odour, Staining or Asbestos.
		0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 0.95			Termination Depth at: 0.30 m.				

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TEST PIT TP01

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, medium plasticity with inclusions of roots and gravels		TP01_0-0.1		No Odour, Staining or Asbestos. QA/QC01
		0.2					TP01_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		CH	Clay - Orange/grey/red, heterogeneous, damp, soft, medium - high plasticity with inclusions of shale		TP01_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP02

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, low plasticity with inclusions of gravels and ACM fragments		TP02_0-0.1		No Odour or Staining. ACM FRAG02 & FRAG03
		0.2		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, low plasticity with large angular gravels		TP02_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		Fill	Fill - Clay, Brown/grey/orange, heterogeneous, damp, soft, medium plasticity with inclusions of plastic pipes and large gravels		TP02_0.4-0.5		No Odour, Staining or Asbestos.
		0.9					TP02_0.9-1		No Odour, Staining or Asbestos.
		1		CH	Clay - Orange/red, heterogeneous, damp, soft, medium plasticity		TP02_1-1.5		No Odour, Staining or Asbestos.
		1.8			Termination Depth at: 1.80 m.				

TEST PIT TP03

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogneous, damp, soft, medium plasticity with inclusions of gravels		TP03_0-0.1		No Odour, Staining or Asbestos.
		0.2		Fill	Fill - Clay, Dark brown, heterogneous, damp, soft, medium plasticity with inclusions of gravels and bitumen		TP03_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4							
		0.5			Termination Depth at: 0.50 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP04

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogneous, damp, soft, medium plasticity with inclusions of gravels and bitumen		TP04_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP04_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		CH	Clay - Orange/red, heterogeneous, damp, soft, medium - high plasticity		TP04_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP05

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clayey Sand, Dark brown, heterogeneous, dry, loose, coarse with inclusions of bitumen and gravels		TP05_0-0.1		No Odour, Staining or Asbestos.
		0.2			Termination Depth at: 0.20 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP06

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogeneous, damp, soft, low plasticity with inclusions of concrete, gravels and shale		TP06_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP06_0.2-0.3		No Odour, Staining or Asbestos. QA/QC02
		0.3							
		0.4		CH	Clay - Orange/red/grey, heterogeneous, damp, soft, medium plasticity with inclusions of shale		TP06_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6		Shale	Shale				
		0.7			Termination Depth at: 0.70 m.				
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP07

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, heterogeneous, dry, soft, low plasticity with inclusions of shale fragments		TP07_0-0.1		No Odour, Staining or Asbestos.
		0.2		RWN	Reworked Natural - Clay, Red/orange, medium plasticity, soft, damp, with inclusions of gravels		TP07_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		CH	Clay - Red/orange, medium plasticity, soft, damp		TP07_0.4-0.5		No Odour, Staining or Asbestos.
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP08

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, low plasticity, dry, soft, with inclusions of gravels		TP08_0-0.1		No Odour, Staining or Asbestos.
		0.2		RWN	Reworked Natural - Clay, Brown/orange, medium plasticity, dry, soft, with inclusions of gravels		TP08_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		CH	Clay - Orange/red, medium plasticity, dry, soft		TP08_0.4-0.5		No Odour, Staining or Asbestos.
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP09

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, damp, soft, with inclusions of gravels and roots		TP09_0-0.1		No Odour, Staining or Asbestos.
		0.2		CH	Clay - Orange/grey, high plasticity, damp, stiff		TP09_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4							
		0.5			Termination Depth at: 0.50 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP10

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, damp, soft, with inclusions of gravels		TP10_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP10_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		Fill	Fill - Clay, Grey/orange, medium plasticity, wet, soft, water seepage		TP10_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7		CH	Clay - Red/orange, high plasticity, damp, firm				
		0.8							
		0.9					TP10_0.9-1		No Odour, Staining or Asbestos.
		1							
		1.1							
		1.2							
		1.3			Termination Depth at: 1.20 m.				
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP11

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Mulch and Clay, brown, dense, moist		TP11_0-0.1		No Odour, Staining or Asbestos.
		0.2			Termination Depth at: 0.20 m.				
		0.3							
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP12

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Mulch, moist		TP12_0-0.1		No Odour, Staining or Asbestos.
		0.2							
		0.3					TP12_0.2-0.3		No Odour, Staining or Asbestos.
		0.4							
		0.5					TP12_0.4-0.5		No Odour, Staining or Asbestos.
		0.6							
		0.7							
		0.8							
		0.9					TP12_0.9-1		No Odour, Staining or Asbestos.
		1		RWN	Reworked Natural - Clay, brown, high plasticity, damp, soft		TP12_1-1.5		No Odour, Staining or Asbestos.
		1.1							
		1.2							
		1.3							
		1.4							
		1.5		CH	Clay - Orange/red/grey, high plasticity, damp, firm		TP12_1.5-2		No Odour, Staining or Asbestos.
		1.6							
		1.7							
		1.8							
		1.9							
		2			Termination Depth at: 2.00 m.				

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TEST PIT TP13

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Orange/grey, medium plasticity, moist, soft, with inclusions of gravels, shales and rocks		TP13_0-0.1		No Odour, Staining or Asbestos.
		0.2		Fill	Fill - Clay, Orange/grey, medium plasticity, dry, soft, with inclusions of gravels, shale rocks		TP13_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4							
		0.5			Termination Depth at: 0.50 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP14

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, damp, with inclusions of shale rocks		TP14_0-0.1		No Odour, Staining or Asbestos.
		0.2		Fill	Fill - Clay, damp, with inclusions of ceramics and shale		TP14_0.2-0.3		No Odour, Staining or Asbestos.
		0.3			Termination Depth at: 0.30 m.				
		0.4							
		0.5							
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP15

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, damp, with inclusions of roots		TP15_0-0.1		No Odour, Staining or Asbestos. QA/QC03
		0.2		Fill	Fill - Clay, Dark brown, medium plasticity, damp, with inclusions of gravels		TP15_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		CH	Clay - Orange/red, medium plasticity, soft, damp		TP15_0.4-0.5		No Odour, Staining or Asbestos.
		0.8			Termination Depth at: 0.80 m.				

TEST PIT TP16

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, soft, damp, with inclusions of roots and gravels		TP16_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP16_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		CH	Clay - Orange/red, high plasticity, firm, damp		TP16_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP17

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, low plasticity, damp, soft, with inclusions of shale gravels		TP17_0-0.1		No Odour, Staining or Asbestos.
		0.2		Fill	Fill - Clay, Dark brown, medium plasticity, damp, firm, with inclusions of shale gravels		TP17_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		CH	Clay - Red/orange, high plasticity, damp, firm		TP17_0.4-0.5		No Odour, Staining or Asbestos.
		0.8			Termination Depth at: 0.80 m.				

TEST PIT TP18

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, damp, soft, with inclusions of roots and gravels		TP18_0-0.1		No Odour, Staining or Asbestos.
		0.2		Fill	Fill - Clay, Grey, medium plasticity, moist, soft-firm, seepage		TP18_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		CH	Clay - Red/orange, high plasticity, damp, firm		TP18_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7							
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP19

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Dark brown, medium plasticity, damp, soft with inclusions of sandstone clasts and gravels.		TP19_0-0.1		No Odour, Staining or Asbestos.
		0.2		CH	Clay - Grey/orange, high plasticity, dry, very stiff.		TP19_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4							
		0.5			Termination Depth at: 0.50 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP20

PROJECT NUMBER 60935	**DRILLING COMPANY** Ken Coles	**EASTING** N/A
PROJECT NAME Dural DD DSI	**DRILLING DATE** 14-May-21	**NORTHING** N/A
CLIENT	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_56
ADDRESS Derriwong and Old Northern Roads Dural NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE** GPS
	DIMENSIONS x m	**LOGGED BY** A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Clay, Yellow/grey/orange, low plasticity, dry, soft with inclusions of sandstone and shale gravels.		TP20_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP20_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4		Fill	Fill - Clay, Black, high plasticity, damp, stiff.		TP20_0.4-0.5		No Odour, Staining or Asbestos. QA/QC05
		0.5							
		0.6							
		0.7							
		0.8							
		0.9		CH	Clay - Grey, high plasticity, damp, stiff.		TP20_0.9-1		No Odour, Staining or Asbestos.
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5		Shale	Shale				
		1.6							
		1.7							
		1.8							
		1.9			Termination Depth at: 1.80 m.				

TEST PIT TP21

PROJECT NUMBER 60935
PROJECT NAME Dural DD DSI
CLIENT
ADDRESS Derriwong and Old Northern Roads Dural NSW

DRILLING COMPANY Ken Coles
DRILLING DATE 14-May-21
DRILL RIG N/A
DRILLING METHOD Test Pit
DIMENSIONS x m

EASTING N/A
NORTHING N/A
COORD SYS GDA94_MGA_zone_56
COORD SOURCE GPS
LOGGED BY A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Gravelly Sand, Dark brown, medium plasticity, damp, soft with inclusions of PVC and gravels.		TP21_0-0.1		No Odour, Staining or Asbestos.
		0.2		RWN	Reworked Natural - Clay, Orange/grey, high plasticity, dry, stiff.		TP21_0.2-0.3		No Odour, Staining or Asbestos.
		0.4		CH	Clay - Orange/grey, high plasticity, dry, stiff.		TP21_0.4-0.5		No Odour, Staining or Asbestos.
		0.8			Termination Depth at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

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TEST PIT TP22

PROJECT NUMBER 60935	**DRILLING COMPANY** Ken Coles	**EASTING** N/A
PROJECT NAME Dural DD DSI	**DRILLING DATE** 14-May-21	**NORTHING** N/A
CLIENT	**DRILL RIG** N/A	**COORD SYS** GDA94_MGA_zone_56
ADDRESS Derriwong and Old Northern Roads Dural NSW	**DRILLING METHOD** Test Pit	**COORD SOURCE** GPS
	DIMENSIONS x m	**LOGGED BY** A Smith

COMMENTS

Drilling Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Sandy Clay, Dark brown, medium plasticity, damp, soft with inclusions of wood, brick, plastic and gravels.		TP22_0-0.1		No Odour, Staining or Asbestos.
		0.2					TP22_0.2-0.3		No Odour, Staining or Asbestos.
		0.3							
		0.4					TP22_0.4-0.5		No Odour, Staining or Asbestos.
		0.5							
		0.6							
		0.7							
		0.8							
		0.9					TP22_0.9-1		No Odour, Staining or Asbestos.
		1		CH	Clay - Clay, Orange/red, high plasticity, damp, firm.		TP22_1-1.5		No Odour, Staining or Asbestos.
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9			Termination Depth at: 1.80 m.				

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TEST PIT 614-TP01

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty CLAY, Brown, heterogeneous, damp, low plasticity, soft, inclusions of trace roots and rootlets.	DP	614-TP01_0.00-0.10	3.2	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - CLAY, Brown, heterogeneous, dry, low plasticity, soft, inclusions of trace rootlets and decaying roots.	DR	614-TP01_0.20-0.30	2.9	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4		CL	Natural - CLAY, Grey/Orange/Tan, homogeneous, dry, medium plasticity, stiff,	DR	614-TP01_0.40-0.50	1.1	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8			End of Hole at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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produced by ESlog.ESdat.net on 30 Aug 2022

TEST PIT 614-TP02

Backfilled Pool

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Shovel
Method Hand Excavation

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
HE		0.1		Fill	Fill - Silty Gravelly CLAY, Brown, heterogeneous, damp, low plasticity, soft, inclusions of trace rootlets, tiles and plastic pieces.	DP	614-TP02_0.00-0.10	3.9	No Odours, Staining or Asbestos Containing Material
		0.2					614-TP02_0.20-0.30	3.5	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4					614-TP02_0.40-0.50	2.1	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6			End of Hole - Refusal at 0.60 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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produced by ESlog.ESdat.net on 30 Aug 2022

TEST PIT 614-TP03

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty CLAY, Brown, heterogeneous, damp, low plasticity, soft, inclusions of trace rootlets, bricks, timber pieces, glass fragments and tiles	DP	614-TP03_0.00-0.10	3.2	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty CLAY, Black, heterogeneous, damp, low plasticity, soft, inclusions of trace rootlets, bricks, timber pieces, glass fragments and tiles	DP	614-TP03_0.20-0.30	3	No Odours, Staining or Asbestos Containing Material
		0.3		Fill	Fill - Silty CLAY, Brown, heterogeneous, dry, medium plasticity, firm, inclusions of trace rootlets. water seepage at 0.8 m.	DR			
		0.4					614-TP03_0.40-0.50	2.8	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8		CL	Natural - Silty CLAY, Brown/Orange, homogeneous, wet, high plasticity, firm.	W			
		0.9					614-TP03_0.90-1.00	1.4	No Odours, Staining or Asbestos Containing Material
		1							
		1.1							
		1.2							
		1.3							
		1.4			End of Hole at: 1.40 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP04

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty CLAY, Dark Brown, heterogeneous, dry, low plasticity, firm, inclusions of trace rootlets and sandstone cobbles.	DR	614-TP04_0.00-0.10	4.5	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty Sandy CLAY, Dark Brown, heterogeneous, dry, medium plasticity, firm, inclusions of trace rootlets and sandstone cobbles.	DR	614-TP04_0.20-0.30	3.9	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4					614-TP04_0.40-0.50	3.1	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8		CL	Natural - CLAY, Orange/Grey/Brown, homogeneous, dry, high plasticity, stiff,	DR			
		0.9					614-TP04_0.90-1.00	2	No Odours, Staining or Asbestos Containing Material
		1							
		1.1							
		1.2							
		1.3							
		1.4			End of Hole at: 1.40 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP05

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty Sandy CLAY, Brown, heterogeneous, damp, low plasticity, soft, inclusions of trace rootlets, igneous pebbles and shale pebbles.	DP	614-TP05_0.00-0.10	3.1	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty Sandy CLAY, Brown/Grey, heterogeneous, damp, medium plasticity, firm, inclusions of trace rootlets, shale gravels and decaying roots.	DP	614-TP05_0.20-0.30	2.4	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4					614-TP05_0.40-0.50	2	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8		CL	Natural - CLAY, Orange, homogeneous, dry, high plasticity, firm, inclusions of shale gravels.	DR			
		0.9					614-TP05_0.90-1.00	1.3	No Odours, Staining or Asbestos Containing Material
		1							
		1.1							
		1.2							
		1.3							
		1.4			End of Hole at: 1.40 m.				
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP06

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.3		Fill	Fill - Sandy Gravelly CLAY, Light Brown, heterogeneous, damp, medium plasticity, firm, inclusions of plastic piping, shale gravels, igneous gravels, rocks, cobbles and boulders.	DP	614-TP06_0.00-0.10	4	No Odours, Staining or Asbestos Containing Material.
							614-TP06_0.40-0.50	3.2	No Odours, Staining or Asbestos Containing Material.
							614-TP06_0.90-1.10	2.1	No Odours, Staining or Asbestos Containing Material.
		1.4 1.5 1.6 1.7 1.8 1.9			End of Hole at 1.30 m. Refusal on large rock boulders. (Boulders used for retaining wall).				

Comments:

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TEST PIT 614-TP07

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Sandy Gravelly CLAY, Grey, heterogeneous, dry, low plasticity, soft, inclusions of trace igenous gravels, shale pebbles and gravels and rootlets.	DR	614-TP07_0.00-0.10	1.8	No Odours, Staining or Asbestos Containing Material
		0.2		CL	Natural - CLAY, Orange/Grey, homogeneous, dry, medium plasticity, firm, inclusions of shale gravels and pebbles.	DR	614-TP07_0.20-0.30	0.9	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4							
		0.5							
		0.6			End of Hole at: 0.60 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP08

Ash at base of waste pile

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty Sandy CLAY, Black, heterogeneous, damp, low plasticity, soft, inclusions of trace wood ash, rootlets, plastic piping and metal.	DP	614-TP08_0.00-0.10	4.5	No Odours, Staining or Asbestos Containing Material.
		0.2		CL	Natural - CLAY, Orange/Brown, homogeneous, dry, medium plasticity, firm,	DR	614-TP08_0.20-0.30	3.1	No Odours, Staining or Asbestos Containing Material.
		0.3							
		0.4							
		0.5			End of Hole at: 0.50 m.				
		0.6							
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP09

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, Brown, heterogeneous, damp, medium plasticity, soft, inclusions of trace rootlets.	DP	614-TP09_0.00-0.10	3.2	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty Sandy CLAY, Brown/Grey/Orange, heterogeneous, damp, medium plasticity, firm, inclusions of trace terracotta pipe.	DP	614-TP09_0.20-0.30	1.8	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4		CL	Natural - CLAY, Orange/Grey, homogeneous, damp, high plasticity, stiff,	DP	614-TP09_0.40-0.50	0.9	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8			End of Hole at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP10

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Silty CLAY, Brown, heterogeneous, damp, medium plasticity, soft, inclusions of trace rootlets and glass pieces.	DP	614-TP10_0.00-0.10	2.7	No Odours, Staining or Asbestos Containing Material
		0.2		CL	Natural - CLAY, Grey, homogeneous, dry, high plasticity, stiff, inclusions of trace shale.	DR	614-TP10_0.20-0.30	1	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4							
		0.5							
		0.6			End of Hole at: 0.60 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP11

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		FILL	Fill - Silty CLAY, Orange/Grey, heterogeneous, damp, medium plasticity, soft, inclusions of trace rootlets and shale gravels.	DP	614-TP11_0.00-0.10	2.4	No Odours, Staining or Asbestos Containing Material
		0.2					614-TP11_0.20-0.30	1.3	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4		CL	Natural - CLAY, Grey/Orange, homogeneous, damp, high plasticity, firm,	DP	614-TP11_0.40-0.50	0.9	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8			End of Hole at: 0.80 m.				
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP12

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1 0.2 0.3 0.4 0.5 0.6		CL	Natural - CLAY, Grey, homogeneous, damp, medium plasticity, stiff,	DP	614-TP12_0.00-0.10 614-TP12_0.20-0.30	1.1 0.8	No Odours, Staining or Asbestos Containing Material No Odours, Staining or Asbestos Containing Material
		0.7 0.8 0.9 1 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9			End of Hole at: 0.60 m.				

Comments:

TEST PIT 614-TP13

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Topsoil-Silty Sandy CLAY, Brown, heterogeneous, dry, low plasticity, soft, inclusions of trace rootlets and igenous gravels.	DR	614-TP13_0.00-0.10	1.2	No Odours, Staining or Asbestos Containing Material
		0.2		CL	Natural - CLAY, Grey, homogeneous, damp, medium plasticity, firm,	DP	614-TP13_0.20-0.30	0.7	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4							
		0.5							
		0.6			End of Hole at: 0.60 m.				
		0.7							
		0.8							
		0.9							
		1							
		1.1							
		1.2							
		1.3							
		1.4							
		1.5							
		1.6							
		1.7							
		1.8							
		1.9							

Comments:

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TEST PIT 614-TP14

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Sandy CLAY, Brown, heterogeneous, dry, low plasticity, soft, inclusions of trace rootlets, wood ash, shale gravels and igneous pebbles.	DR	614-TP14_0.00-0.10	4.1	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty CLAY, Brown/Black, heterogeneous, damp, medium plasticity, soft, inclusions of trace metal, plastics, tiles, glass and wood ash.	DP	614-TP14_0.20-0.30	3.8	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4					614-TP14_0.40-0.50	3.4	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8							
		0.9					614-TP14_0.90-1.00	2.1	No Odours, Staining or Asbestos Containing Material
		1							
		1.1							
		1.2							
		1.3							
		1.4		CL	Natural - CLAY, Orange, homogeneous, damp, high plasticity, firm,	DP	614-TP14_1.40-1.50	1.1	No Odours, Staining or Asbestos Containing Material
		1.5							
		1.6							
		1.7							
		1.8							
		1.9			End of Hole at: 1.80 m.				

Comments:

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TEST PIT 614-TP15

Project Number 60935
Client Legacy Properties
Project Name Dural DD DSI
Address Derriwong and Old Northern Roads Dural NSW

Contractor Ken Coles
Date 23-Aug-22
Plant Backhoe
Method Excavator Bucket

Easting N/A
Northing N/A
Coordinate System GDA94_MGA_zone_56
Logged By Dominic Noonan-O'Keeffe

Method	Water (m bgl)	Depth (m bgl)	Graphic Log	Lithological Class	Lithological Description	Moisture	Samples	PID	Additional Observations
Test Pit		0.1		Fill	Fill - Sandy CLAY, Brown/Light Brown, heterogeneous, dry, low plasticity, soft, inclusions of trace rootlets, roots, wood ash and plastic.	DR	614-TP15_0.00-0.10	3.7	No Odours, Staining or Asbestos Containing Material
		0.2		Fill	Fill - Silty CLAY, Brown, heterogeneous, dry, low plasticity, soft, inclusions of trace plastic, rootlets and barbed wire.	DR	614-TP15_0.20-0.30	3.1	No Odours, Staining or Asbestos Containing Material
		0.3							
		0.4					614-TP15_0.40-0.50	2.8	No Odours, Staining or Asbestos Containing Material
		0.5							
		0.6							
		0.7							
		0.8							
		0.9					614-TP15_0.90-1.00	2.1	No Odours, Staining or Asbestos Containing Material
		1							
		1.1							
		1.2							
		1.3							
		1.4		CL	Natural - CLAY, Orange/Brown, homogeneous, damp, high plasticity, firm,	DP	614-TP15_1.40-1.50	1.3	No Odours, Staining or Asbestos Containing Material
		1.5							
		1.6							
		1.7							
		1.8							
		1.9			End of Hole at 1.80 m.				

Comments:

Appendix I Decontamination and Calibration Form

Field Equipment Calibration and Decontamination

PROJECT NAME: Old Northern Rd.	PROJECT NO: 60935
FIELDWORK DATES: 13 - 14 . 5 . 21	SAMPLERS: Ali Smith
TYPE OF INVESTIGATION: HA + TP	PROJECT MANAGER: Sarah Gray

CALIBRATION SUMMARY

EQUIPMENT: PID
CALIBRATION STANDARD:

DATE	TIME	READING (ppm)	COMMENTS
13.5.21	1000	0	Zero'd
		100.2	Isob

DECONTAMINATION SUMMARY

EQUIPMENT:				
1	Was the equipment decontaminated appropriately prior to sampling at each location?	Y	N	NA
2	Was excess soil removed by scraping, brushing or wiping with disposable towels?	Y	N	NA
3	Was the equipment contaminated with grease, tar or similar material?	Y	N	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	N	NA
4	Was phosphate-free detergent used to wash the equipment?	Y	N	NA
5	Was the equipment rinsed with clean water?	Y	N	NA
6	Was the equipment then rinsed with deionised water?	Y	N	NA
7	Were all sample containers cleaned and acid or solvent washed prior to sample collection?	Y	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS

New pair of nitrile gloves per sample.

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Field Equipment Calibration and Decontamination

PROJECT NAME: Old Northern Rd	**PROJECT NO:** 60935
FIELDWORK DATES: 23/8/22	**SAMPLERS:** DNO
TYPE OF INVESTIGATION: Test pit	**PROJECT MANAGER:** Sarah Craig.

CALIBRATION SUMMARY

EQUIPMENT: PID
CALIBRATION STANDARD: ~~to~~ Isobutylene.

DATE	TIME	READING (ppm)	COMMENTS
23/8	08:00	102.3	Bump test
↓	08:05	0	Zero cal.

DECONTAMINATION SUMMARY

EQUIPMENT:

1	Was the equipment decontaminated appropriately prior to sampling at each location?	Y	N	NA
2	Was excess soil removed by scraping, brushing or wiping with disposable towels?	Y	N	NA
3	Was the equipment contaminated with grease, tar or similar material?	Y	N	NA
	If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y	N	NA
4	Was phosphate-free detergent used to wash the equipment?	Y	N	NA
5	Was the equipment rinsed with clean water?	Y	N	NA
6	Was the equipment then rinsed with deionised water?	Y	N	NA
7	Were all sample containers cleaned and acid or solvent washed prior to sample collection?	Y	N	NA

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS

1 pair nitrile gloves per sample.

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Appendix J Quality Assurance/Quality Control

The QA/QC results for soil samples collected at the site are summarised in **Table J.1** and discussed following. Laboratory certificates of analysis are included in **Appendix K**.

Table J.1: Data Quality Indicator Assessment

Data Quality Indicator	Frequency/result	DQI Met?
Precision		
Blind duplicates	4/57 samples, 0-83% RPD	Partial[1]
Blind triplicates	4/57 samples, 0-130% RPD	Partial[1]
Laboratory duplicates	>1/20 samples, 0-110% RPD	Partial[1]
Accuracy		
Surrogate spikes	All organic samples, 131-149% RPD	Partial[1]
Laboratory control samples	1 per lab batch, 70-130% RPD	Yes
Matrix spikes	1 per lab batch, 70-130% RPD	Yes
Representativeness		
Sampling appropriate for media and analytes	All samples	Yes
Samples extracted and analysed within holding times	All samples	Yes
Laboratory blank	1 per laboratory batch	<LOR
Trip spike	1 per sampling event (volatile or semi-volatile COPCs)	78-120%
Trip blank	1 per sampling event (volatile or semi-volatile COPCs)	<LOR
Rinsate	1 per sampling event (where reusable sampling equipment is used)	Partial[1]
Comparability		
Standard operating procedures for sample collection & handling	All samples	Partial[1]
Standard analytical methods used for all analyses	All samples	Yes
Consistent field conditions, sampling staff and laboratory analysis	All works	Yes
Limits of reporting appropriate and consistent	All samples	Yes
Completeness		
Soil description and COCs completed and appropriate	All samples	Yes
Appropriate documentation	All works	Yes
Satisfactory frequency and result for QC samples	All QA/QC samples	Yes
Data from critical samples is considered valid	-	Yes
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All samples	Yes

[1] See discussion of QA/QC results

Discussion of QA/QC Results

Precision

Blind Duplicates/Triplicates

The rates of blind duplicate and triplicate sampling for soils are considered appropriate. Blind duplicate samples were within the range of 0-50% RPD, with the exception of the following:

- Zinc with an RPD of 83% between the primary (TP20-0.4-0.5) and duplicate (QC05) samples;
- Cadmium with an RPD of 55% between the primary (614-TP03_0-0.1) and duplicate (QC20220823) samples;
- Lead with an RPD of 64% between the primary (614-TP03_0-0.1) and duplicate (QC20220823) samples; and
- Mercury with an RPD of 67% between the primary (614-TP03_0-0.1) and duplicate (QC20220823) samples.

Blind triplicate samples were within the range of 0-50% RPD, with the exception of the following:

- Chromium with an RPD of 73% between the primary (TP20-0.4-0.5) and triplicate (QA05) samples;
- Lead with an RPD of 129% between the primary (TP20-0.4-0.5) and triplicate (QA05) samples;
- Lead with an RPD of 53% between the primary (614-TP03_0-0.1) and triplicate (QA20220823) samples;
- Nickel with an RPD of 101% between the primary (TP20-0.4-0.5) and triplicate (QA05) samples;
- Zinc with an RPD of 73% between the primary (TP20-0.4-0.5) and triplicate (QA05) samples; and
- Mercury with an RPD of 67% between the primary (614-TP03_0-0.1) and triplicate (QA20220823) samples.

It is considered that most of the elevated RPDs are due to the heterogeneous nature of soils, particularly fill material. Additionally, analytical results with high RPDs were generally reported at levels below the adopted criteria. As a conservative measure, the highest result obtained was adopted for assessment purposes. Based on this, the RPDs above the DQI are not considered to affect the data set.

Laboratory Duplicates

The rates of laboratory duplicate sampling are considered appropriate. Laboratory duplicate samples were within the range of 0-50% RPD, except for the following:

Analyte	Primary Sample	Lab Duplicate Sample	RPD (%)
Arsenic	HA06-0.0-0.1	S21-My32358-DUP	110
Arsenic	QC01	S21-My32368-DUP	53
Arsenic	TP12-0.9-1.0	S21-My32381-DUP	68
Arsenic	TP19-0.0-0.1	S21-My32392-DUP	68
Nickel	TP12-0.9-1.0	S21-My32381-DUP	75
Chromium	TP12-0.9-1.0	S21-My32381-DUP	82
Copper	TP12-0.9-1.0	S21-My32381-DUP	50

It is considered that the majority of the elevated RPDs are due to the heterogeneous nature of soils. Concentrations were also reported as less than 10 times the limit of reporting and therefore do not

have an RPD limit. Additionally, analytical results with high RPDs were generally reported at levels below the adopted criteria. Based on this, the RPDs above the DQI are not considered to affect the data set.

Accuracy

Surrogate Spikes

Some surrogate spike recoveries were outside the acceptable range of 70-130%, however the outlying surrogate recoveries were within the laboratory acceptance criteria of 50-150% and are not considered to significantly affect the accuracy of the data set.

Laboratory Control Samples

Laboratory control sample (LCS) recoveries were within the acceptable range of 70-130%.

Matrix Spikes

Matrix spikes were within the acceptable range of 70-130%.

Representativeness

Sampling appropriate for media and analytes

Samples were collected via hand auger or test pit and reusable equipment was decontaminated between sample locations. Samples were collected using a fresh pair of nitrile gloves for each sample location. Sampling was undertaken by appropriately experienced staff in accordance with standard procedures, noting however a rinsate sample was not collected for the reusable sampling equipment (hand auger) employed for some of the sampling. Samples were transferred directly to laboratory provided asbestos sample bags or glass jars (as appropriate). Samples were then placed into an esky with ice for transport to the laboratory.

Holding times

Samples were extracted and analysed within the defined holding time. It is noted that given the particulate structure of asbestos, no published holding times are prescribed for the analysis of asbestos.

Trip spike/trip blank

A trip spike was reported between 70-130% and the trip blank was reported <LOR.

Rinsate blank

Soil samples were collected via hand auger or test pits excavated by backhoe. Reusable sampling equipment (i.e. hand auger) was decontaminated between sample locations, however a rinsate blank was not collected for this sampling program. Samples collected from test pits excavated utilising the backhoe were collected from the centre of the bucket directly into sampling containers to prevent cross contamination. Each sample was also collected with fresh gloves.

Although no rinsate blank was collected to demonstrate the effectiveness of the decontamination process, given the reported results of COPC concentrations in soil samples it is considered unlikely that cross contamination occurred.

The surface water sample was collected directly from the water edge directly into sample containers, and no reusable equipment was utilised.

Comparability

Eurofins|mgt and Envirolab Services Pty Ltd were used as the primary and secondary laboratories respectively for the duration of the assessment. The laboratories implemented standard analytical procedures as detailed in the laboratory reports provided in **Appendix K**, and consistent with their NATA accreditation.

Completeness

Documentation

All field documentation including field screening forms and COCs were completed to a satisfactory standard. All documentation is complete and correct.

Frequency for QC Samples

Duplicate and triplicate samples were collected at an appropriate rate considered acceptable for the assessment.

Sensitivity

The laboratory limit of reporting (LOR) was less than site assessment criteria for all samples. On this basis, the sensitivity and comparability of the analytical methods employed by the laboratories is considered to be appropriate for the purpose of this assessment.

It is noted that the LORs for some pesticides in surface water were higher than the adopted freshwater criteria. This is not considered to affect the outcome of the assessment given the absence of these COPC in soil at the site surrounding the surface water dams and the absence of elevated concentrations of other OCPs in the water samples.

Assessment of QA/QC

The field sampling and handling procedures produced QA/QC results which indicate the soil and surface water data are of an acceptable quality and suitable for use in the characterisation of the nature and degree of soil impacts.

The laboratory results indicate that the project laboratories were achieving required levels of sensitivity for the purposes of this assessment.

On the basis of the field and laboratory QA/QC program, the soil and surface water data are of an acceptable quality upon which to draw conclusions regarding the condition of the site.

Soil RPDs

Field Duplicates (soil)
Filter: ALL

SDG	795812	795812		795812	795812		795812	795812		917317	917317	
Field ID	TP01-0.0-0.1	QC01	**RPD**	TP20-0.4-0.5	QC05	**RPD**	TP15-0.0-0.1	QC03	**RPD**	614-TP03_0-0.1	QC20220823	**RPD**
Sampled Date/Time	14/05/2021	14/05/2021		14/05/2021	14/05/2021		14/05/2021	14/05/2021		23/08/2022	23/08/2022	
Chem_Group	**ChemName**	**Units**	**EQL**									
Metals & Metalloids	Arsenic	mg/kg	2 : 4 (Interlab)	7.3	10	31	6.2	5.4	14	5.7	5	13	7.1	8.5	18
	Cadmium	mg/kg	0.4	0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	**<0.4**	**0.7**	**55**
	Chromium (III+VI)	mg/kg	5 : 1 (Interlab)	20	26	26	15	12	22	16	15	6	21	19	10
	Copper	mg/kg	5 : 1 (Interlab)	200	140	35	53	47	12	170	160	6	41	30	31
	Lead	mg/kg	5 : 1 (Interlab)	22	23	4	42	29	37	19	18	5	**120**	**62**	**64**
	Mercury	mg/kg	0.1										**0.2**	**<0.1**	**67**
	Nickel	mg/kg	5 : 1 (Interlab)	9.3	7.1	27	6.1	<5	20	6.1	6.1	0	8.1	9.1	12
	Zinc	mg/kg	5 : 1 (Interlab)	83	55	41	**150**	**62**	**83**	68	48	34	160	100	46
TPHs (NEPC 1999)	C6-C9 Fraction	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0				<20	<20	0
	C10-C14 Fraction	mg/kg	20 : 50 (Interlab)	<20	<20	0	<20	<20	0				<20	<20	0
	C15-C28 Fraction	mg/kg	50 : 100 (Interlab)	<50	<50	0	<50	<50	0				<50	<50	0
	C29-C36 Fraction	mg/kg	50 : 100 (Interlab)	<50	<50	0	<50	<50	0				<50	<50	0
	C10-C36 Fraction (Sum of Total)	mg/kg	50	<50	<50	0	<50	<50	0				<50	<50	0
TRHs (NEPC 2013)	C6-C10	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0				<20	<20	0
	C10-C16	mg/kg	50	<50	<50	0	<50	<50	0				<50	<50	0
	C16-C34	mg/kg	100	<100	<100	0	<100	<100	0				<100	<100	0
	C34-C40	mg/kg	100	<100	<100	0	<100	<100	0				<100	<100	0
	C10-C40 (Sum of total)	mg/kg	100 : 50 (Interlab)	<100	<100	0	<100	<100	0				<100	<100	0
	F1 (C6-C10 minus BTEX)	mg/kg	20 : 25 (Interlab)	<20	<20	0	<20	<20	0				<20	<20	0
	F2 (C10-C16 less Naphthalene)	mg/kg	50	<50	<50	0	<50	<50	0				<50	<50	0
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	Toluene	mg/kg	0.1 : 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	Ethylbenzene	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	Xylene (m & p)	mg/kg	0.2 : 2 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0				<0.2	<0.2	0
	Xylene Total	mg/kg	0.3 : 1 (Interlab)										<0.3	<0.3	0
	Xylene Total	mg/kg	0.3 : 3 (Interlab)	<0.3	<0.3	0	<0.3	<0.3	0						
	Naphthalene - MAH	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0						
PAH	Acenaphthene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Acenaphthylene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Benzo(a)pyrene	mg/kg	0.5 : 0.05 (Interlab)										<0.5	<0.5	0
	Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5										0.6	0.6	0
	Benzo(b+j)fluoranthene	mg/kg	0.5										<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5										<0.5	<0.5	0
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)										<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)										<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.5	0
	PAHs (Sum of total)	mg/kg	0.5 : 0.05 (Interlab)										<0.5	<0.5	0

Soil RPDs

Field Duplicates (soil)
Filter: ALL

SDG			795812	795812		795812	795812		795812	795812		917317	917317	
Field ID			TP01-0.0-0.1	QC01	**RPD**	TP20-0.4-0.5	QC05	**RPD**	TP15-0.0-0.1	QC03	**RPD**	614-TP03_0-0.1	QC20220823	**RPD**
Sampled Date/Time			14/05/2021	14/05/2021		14/05/2021	14/05/2021		14/05/2021	14/05/2021		23/08/2022	23/08/2022	
Chem_Group	**ChemName**	**Units**	**EQL**											
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	g-BHC (Lindane)	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	DDT	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	DDT+DDE+DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endosulfan I	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endosulfan II	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endosulfan sulphate	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endrin aldehyde	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Heptachlor Epoxide	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0
	Methoxychlor	mg/kg	0.2 : 0.1 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0						
	Methoxychlor	mg/kg	0.05 : 0.1 (Interlab)										<0.05	<0.05	0
	Toxaphene	mg/kg	0.5										<0.5	<0.5	0
	Toxaphene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0						
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1016	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1221	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0				<0.1	<0.1	0
	Arochlor 1232	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1232	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1242	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1242	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1248	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1248	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1254	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1254	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1260	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	Arochlor 1260	mg/kg	0.1										<0.1	<0.1	0
	PCBs (Sum of total)	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0						
	PCBs (Sum of total)	mg/kg	0.1										<0.1	<0.1	0
Chlorinated Benzenes	Hexachlorobenzene	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0				<0.05	<0.05	0

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

Soil RPDs

Field Duplicates (soil)
Filter: ALL

SDG	795812	269307		795812	269307		795812	269307		917317	303939	
Field ID	TP01-0.0-0.1	QA01	RPD	TP15-0.0-0.1	QA03	RPD	TP20-0.4-0.5	QA05	RPD	614-TP03_0-0.1	QA20220823	RPD
Sampled Date/Time	14/05/2021	14/05/2021		14/05/2021	14/05/2021		14/05/2021	14/05/2021		23/08/2022	23/08/2022	

Chem_Group	ChemName	Units	EQL												
Metals & Metalloids	Arsenic	mg/kg	2 : 4 (Interlab)	7.3	7	4	5.7	6	5	6.2	<4	43	7.1	5	35
	Cadmium	mg/kg	0.4	0.4	0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
	Chromium (III+VI)	mg/kg	5 : 1 (Interlab)	20	16	22	16	16	0	**15**	**7**	**73**	21	16	27
	Copper	mg/kg	5 : 1 (Interlab)	200	240	18	170	160	6	53	32	49	41	38	8
	Lead	mg/kg	5 : 1 (Interlab)	22	19	15	19	17	11	**42**	**9**	**129**	**120**	**70**	**53**
	Mercury	mg/kg	0.1										**0.2**	**0.1**	**67**
	Nickel	mg/kg	5 : 1 (Interlab)	9.3	9	3	6.1	6	2	**6.1**	**2**	**101**	8.1	5	47
	Zinc	mg/kg	5 : 1 (Interlab)	83	83	0	68	43	45	**150**	**32**	**130**	160	110	37
TPHs (NEPC 1999)	C6-C9 Fraction	mg/kg	20 : 25 (Interlab)	<20	<25	0				<20	<25	0	<20	<25	0
	C10-C14 Fraction	mg/kg	20 : 50 (Interlab)	<20	<50	0				<20	<50	0	<20	<50	0
	C15-C28 Fraction	mg/kg	50 : 100 (Interlab)	<50	<100	0				<50	<100	0	<50	<100	0
	C29-C36 Fraction	mg/kg	50 : 100 (Interlab)	<50	<100	0				<50	<100	0	<50	<100	0
	C10-C36 Fraction (Sum of Total)	mg/kg	50	<50						<50			<50	<50	0
TRHs (NEPC 2013)	C6-C10	mg/kg	20 : 25 (Interlab)	<20	<25	0				<20	<25	0	<20	<25	0
	C10-C16	mg/kg	50	<50	<50	0				<50	<50	0	<50	<50	0
	C16-C34	mg/kg	100	<100	<100	0				<100	<100	0	<100	<100	0
	C34-C40	mg/kg	100	<100	<100	0				<100	<100	0	<100	<100	0
	C10-C40 (Sum of total)	mg/kg	100 : 50 (Interlab)	<100	<50	0				<100	<50	0	<100	<50	0
	F1 (C6-C10 minus BTEX)	mg/kg	20 : 25 (Interlab)	<20	<25	0				<20	<25	0	<20	<25	0
	F2 (C10-C16 less Naphthalene)	mg/kg	50	<50	<50	0				<50	<50	0	<50	<50	0
BTEXN	Benzene	mg/kg	0.1 : 0.2 (Interlab)	<0.1	<0.2	0				<0.1	<0.2	0	<0.1	<0.2	0
	Toluene	mg/kg	0.1 : 0.5 (Interlab)	<0.1	<0.5	0				<0.1	<0.5	0	<0.1	<0.5	0
	Ethylbenzene	mg/kg	0.1 : 1 (Interlab)	<0.1	<1	0				<0.1	<1	0	<0.1	<1	0
	Xylene (o)	mg/kg	0.1 : 1 (Interlab)	<0.1	<1	0				<0.1	<1	0	<0.1	<1	0
	Xylene (m & p)	mg/kg	0.2 : 2 (Interlab)	<0.2	<2	0				<0.2	<2	0	<0.2	<2	0
	Xylene Total	mg/kg	0.3 : 1 (Interlab)										<0.3	<1	0
	Xylene Total	mg/kg	0.3 : 3 (Interlab)	<0.3	<3	0				<0.3	<3	0			
	Naphthalene - MAH	mg/kg	0.5	<0.5						<0.5					
PAH	Acenaphthene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Acenaphthylene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Benz(a)anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Benzo(a)pyrene	mg/kg	0.5 : 0.05 (Interlab)										<0.5	<0.05	0
	Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5										0.6	<0.5	18
	Benzo(b+j)fluoranthene	mg/kg	0.5										<0.5		
	Benzo(g,h,i)perylene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Benzo(k)fluoranthene	mg/kg	0.5										<0.5		
	Chrysene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Dibenz(a,h)anthracene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Fluoranthene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Fluorene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)										<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 : 1 (Interlab)										<0.5	<0.1	0
	Phenanthrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	Pyrene	mg/kg	0.5 : 0.1 (Interlab)										<0.5	<0.1	0
	PAHs (Sum of total)	mg/kg	0.5 : 0.05 (Interlab)										<0.5	<0.05	0

Soil RPDs

Field Duplicates (soil)
Filter: ALL

SDG	795812	269307		795812	269307		795812	269307		917317	303939	
Field ID	TP01-0.0-0.1	QA01	**RPD**	TP15-0.0-0.1	QA03	**RPD**	TP20-0.4-0.5	QA05	**RPD**	614-TP03_0-0.1	QA20220823	**RPD**
Sampled Date/Time	14/05/2021	14/05/2021		14/05/2021	14/05/2021		14/05/2021	14/05/2021		23/08/2022	23/08/2022	
Chem_Group	**ChemName**	**Units**	**EQL**												
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	a-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	b-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	d-BHC	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	g-BHC (Lindane)	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Aldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Dieldrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05						<0.05			<0.05		
	Chlordane	mg/kg	0.1	<0.1						<0.1			<0.1		
	DDT	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	DDT+DDE+DDD	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan I	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan II	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan sulphate	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endrin	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endrin aldehyde	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Endrin ketone	mg/kg	0.05	<0.05						<0.05			<0.05		
	Heptachlor	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Heptachlor Epoxide	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0
	Methoxychlor	mg/kg	0.2 : 0.1 (Interlab)	<0.2	<0.1	0				<0.2	<0.1	0			
	Methoxychlor	mg/kg	0.05 : 0.1 (Interlab)										<0.05	<0.1	0
	Toxaphene	mg/kg	0.5										<0.5		
	Toxaphene	mg/kg	0.1	<0.1						<0.1					
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1016	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1221	mg/kg	0.1	<0.1	<0.1	0				<0.1	<0.1	0	<0.1	<0.1	0
	Arochlor 1232	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1232	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1242	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1242	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1248	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1248	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1254	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1254	mg/kg	0.1										<0.1	<0.1	0
	Arochlor 1260	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	Arochlor 1260	mg/kg	0.1										<0.1	<0.1	0
	PCBs (Sum of total)	mg/kg	0.5 : 0.1 (Interlab)	<0.5	<0.1	0				<0.5	<0.1	0			
	PCBs (Sum of total)	mg/kg	0.1										<0.1	<0.1	0
Chlorinated Benzenes	Hexachlorobenzene	mg/kg	0.05 : 0.1 (Interlab)	<0.05	<0.1	0				<0.05	<0.1	0	<0.05	<0.1	0

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

Appendix K Laboratory Reports

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Sarah Gray
Report	795812-AID
Project Name	DLD NORTHERN RD DD DS
Project ID	60935
Received Date	May 14, 2021
Date Reported	May 25, 2021

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

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

Project Name DLD NORTHERN RD DD DS
Project ID 60935
Date Sampled May 13, 2021 to May 14, 2021
Report 795812-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
HA01-0.0-0.1	21-My32353	May 13, 2021	Approximate Sample 593g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA02-0.0-0.1	21-My32354	May 13, 2021	Approximate Sample 553g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA03-0.0-0.1	21-My32355	May 13, 2021	Approximate Sample 525g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA04-0.0-0.1	21-My32356	May 13, 2021	Approximate Sample 478g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA05-0.0-0.1	21-My32357	May 13, 2021	Approximate Sample 623g Sample consisted of: Brown fine-grained clayey soil, brick and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA06-0.0-0.1	21-My32358	May 13, 2021	Approximate Sample 424g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA07-0.0-0.1	21-My32359	May 13, 2021	Approximate Sample 492g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA08-0.0-0.1	21-My32360	May 13, 2021	Approximate Sample 566g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
HA09-0.0-0.1	21-My32361	May 13, 2021	Approximate Sample 366g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA11-0.0-0.1	21-My32364	May 14, 2021	Approximate Sample 546g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
HA12-0.0-0.1	21-My32365	May 14, 2021	Approximate Sample 421g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP01-0.0-0.1	21-My32366	May 14, 2021	Approximate Sample 689g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
FRAG02	21-My32369	May 14, 2021	Approximate Sample 10g Sample consisted of: Grey fibre cement material	Chrysotile and amosite asbestos detected.
FRAG03	21-My32370	May 14, 2021	Approximate Sample 6g Sample consisted of: Grey fibre cement material	Chrysotile and amosite asbestos detected.
FRAG01	21-My32371	May 14, 2021	Approximate Sample 20g Sample consisted of: Grey fibre cement material	Chrysotile asbestos detected.
TP03-0.0-0.1	21-My32372	May 14, 2021	Approximate Sample 768g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP07-0.0-0.1	21-My32376	May 14, 2021	Approximate Sample 941g Sample consisted of: Brown fine-grained clayey soil, shell fragments and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP08-0.0-0.1	21-My32377	May 14, 2021	Approximate Sample 741g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP12-0.9-1.0	21-My32381	May 14, 2021	Approximate Sample 450g Sample consisted of: Brown coarse-grained soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP13-0.2-0.3	21-My32382	May 14, 2021	Approximate Sample 782g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP14-0.0-0.1	21-My32383	May 14, 2021	Approximate Sample 713g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP16-0.2-0.3	21-My32389	May 14, 2021	Approximate Sample 758g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP18-0.0-0.1	21-My32391	May 14, 2021	Approximate Sample 552g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP20-0.4-0.5	21-My32393	May 14, 2021	Approximate Sample 652g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP22-0.0-0.1	21-My32397	May 14, 2021	Approximate Sample 592g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	May 17, 2021	Indefinite
Asbestos - LTM-ASB-8020	Sydney	May 17, 2021	Indefinite

eurofins | Environment Testing

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
1	HA01-0.0-0.1	May 13, 2021		Soil	S21-My32353	X	X			X	X			X	X	X		X			
2	HA02-0.0-0.1	May 13, 2021		Soil	S21-My32354		X						X	X	X						
3	HA03-0.0-0.1	May 13, 2021		Soil	S21-My32355		X							X	X			X			
4	HA04-0.0-0.1	May 13, 2021		Soil	S21-My32356		X							X	X			X			
5	HA05-0.0-0.1	May 13, 2021		Soil	S21-My32357		X						X	X	X						
6	HA06-0.0-0.1	May 13, 2021		Soil	S21-My32358	X	X			X	X			X	X	X		X			
7	HA07-0.0-0.1	May 13, 2021		Soil	S21-My32359		X							X	X			X			
8	HA08-0.0-0.1	May 13, 2021		Soil	S21-My32360		X						X	X	X						
9	HA09-0.0-0.1	May 13, 2021		Soil	S21-My32361		X						X	X	X						

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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43 Detroit Drive
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Sydney
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Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
10	HA10-0.0-0.1	May 13, 2021		Soil	S21-My32362										X			X			
11	HA10-0.2-0.3	May 13, 2021		Soil	S21-My32363										X		X				
12	HA11-0.0-0.1	May 14, 2021		Soil	S21-My32364		X						X	X	X						
13	HA12-0.0-0.1	May 14, 2021		Soil	S21-My32365		X							X	X			X			
14	TP01-0.0-0.1	May 14, 2021		Soil	S21-My32366		X							X	X			X			
15	TP02-0.0-0.1	May 14, 2021		Soil	S21-My32367								X	X	X						
16	QC01	May 14, 2021		Soil	S21-My32368									X	X			X			
17	FRAG02	May 14, 2021		Building Materials	S21-My32369			X													
18	FRAG03	May 14, 2021		Building Materials	S21-My32370			X													

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Australia

Melbourne
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NATA # 1261
Site # 1254 & 14271

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Unit F3, Building F
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Lane Cove West NSW 2066
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Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
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NATA # 1261 Site # 25079

New Zealand

Auckland
35 O'Rorke Road
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
19	FRAG01	May 14, 2021		Building Materials	S21-My32371			X													
20	TP03-0.0-0.1	May 14, 2021		Soil	S21-My32372		X						X		X						
21	TP04-0.0-0.1	May 14, 2021		Soil	S21-My32373										X			X			
22	TP05-0.0-0.1	May 14, 2021		Soil	S21-My32374										X			X			
23	TP06-0.0-0.1	May 14, 2021		Soil	S21-My32375								X		X						
24	TP07-0.0-0.1	May 14, 2021		Soil	S21-My32376		X							X	X			X			
25	TP08-0.0-0.1	May 14, 2021		Soil	S21-My32377		X						X		X						
26	TP09-0.0-0.1	May 14, 2021		Soil	S21-My32378								X		X						
27	TP10-0.4-0.5	May 14, 2021		Soil	S21-My32379										X			X			
28	TP11-0.0-0.1	May 14, 2021		Soil	S21-My32380								X		X						

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Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
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IANZ # 1327

Christchurch
43 Detroit Drive
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
29	TP12-0.9-1.0	May 14, 2021		Soil	S21-My32381		X						X		X						
30	TP13-0.2-0.3	May 14, 2021		Soil	S21-My32382		X							X	X			X			
31	TP14-0.0-0.1	May 14, 2021		Soil	S21-My32383		X						X		X						
32	TP15-0.0-0.1	May 14, 2021		Soil	S21-My32384										X			X			
33	SED01	May 14, 2021		Soil	S21-My32385							X	X		X						
34	SED02	May 14, 2021		Soil	S21-My32386							X			X			X			
35	SED03	May 14, 2021		Soil	S21-My32387							X	X		X						
36	W01	May 14, 2021		Water	S21-My32388							X							X		
37	TP16-0.2-0.3	May 14, 2021		Soil	S21-My32389		X							X	X			X			
38	TP17-0.0-0.1	May 14, 2021		Soil	S21-My32390										X			X			
39	TP18-0.0-0.1	May 14, 2021		Soil	S21-My32391		X						X		X						

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
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IANZ # 1327

Christchurch
43 Detroit Drive
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
40	TP19-0.0-0.1	May 14, 2021		Soil	S21-My32392								X		X						
41	TP20-0.4-0.5	May 14, 2021		Soil	S21-My32393		X							X	X			X			
42	TP20-0.9-1.0	May 14, 2021		Soil	S21-My32394							X	X		X						
43	QC05	May 14, 2021		Soil	S21-My32395									X	X			X			
44	TP21-0.0-0.1	May 14, 2021		Soil	S21-My32396										X			X			
45	TP22-0.0-0.1	May 14, 2021		Soil	S21-My32397		X						X		X						
46	TS	May 14, 2021		Water	S21-My32398																X
47	TB	May 14, 2021		Water	S21-My32399															X	
48	HA01-0.2-0.3	May 14, 2021		Soil	S21-My32400				X												
49	HA02-0.2-0.3	May 14, 2021		Soil	S21-My32401				X												
50	HA03-0.2-0.3	May 14, 2021		Soil	S21-My32402				X												

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Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
51	HA04-0.2-0.3	May 14, 2021		Soil	S21-My32403				X												
52	HA05-0.2-0.3	May 14, 2021		Soil	S21-My32404				X												
53	HA06-0.2-0.3	May 14, 2021		Soil	S21-My32405				X												
54	HA07-0.2-0.3	May 14, 2021		Soil	S21-My32406				X												
55	HA08-0.2-0.3	May 14, 2021		Soil	S21-My32407				X												
56	HA09-0.2-0.3	May 14, 2021		Soil	S21-My32408				X												
57	HA11-0.2-0.3	May 14, 2021		Soil	S21-My32409				X												
58	TP01-0.2-0.3	May 14, 2021		Soil	S21-My32410				X												
59	TP01-0.4-0.5	May 14, 2021		Soil	S21-My32411				X												
60	TP02-0.2-0.3	May 14, 2021		Soil	S21-My32412				X												
61	TP02-0.4-0.5	May 14, 2021		Soil	S21-My32413				X												

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Australia

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Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
62	TP02-0.9-1.0	May 14, 2021		Soil	S21-My32414				X												
63	TP02-1.0-1.5	May 14, 2021		Soil	S21-My32415				X												
64	TP03-0.2-0.3	May 14, 2021		Soil	S21-My32416				X												
65	TP04-0.2-0.3	May 14, 2021		Soil	S21-My32417				X												
66	TP04-0.4-0.5	May 14, 2021		Soil	S21-My32418				X												
67	TP06-0.2-0.3	May 14, 2021		Soil	S21-My32419				X												
68	TP06-0.4-0.5	May 14, 2021		Soil	S21-My32420				X												
69	QC02	May 14, 2021		Soil	S21-My32421				X												
70	TP07-0.2-0.3	May 14, 2021		Soil	S21-My32422				X												
71	TP07-0.4-0.5	May 14, 2021		Soil	S21-My32423				X												
72	TP08-0.2-0.3	May 14, 2021		Soil	S21-My32424				X												

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Australia

Melbourne
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NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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NATA # 1261 Site # 18217

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
73	TP08-0.4-0.5	May 14, 2021		Soil	S21-My32425				X												
74	TP09-0.2-0.3	May 14, 2021		Soil	S21-My32426				X												
75	TP10-0.0-0.1	May 14, 2021		Soil	S21-My32427				X												
76	TP10-0.2-0.3	May 14, 2021		Soil	S21-My32428				X												
77	TP10-0.9-1.0	May 14, 2021		Soil	S21-My32429				X												
78	TP12-0.0-0.1	May 14, 2021		Soil	S21-My32430				X												
79	TP12-0.2-0.3	May 14, 2021		Soil	S21-My32431				X												
80	TP12-0.4-0.5	May 14, 2021		Soil	S21-My32432				X												
81	TP12-1.0-1.5	May 14, 2021		Soil	S21-My32433				X												
82	TP12-1.5-2.0	May 14, 2021		Soil	S21-My32434				X												
83	TP13-0.0-0.1	May 14, 2021		Soil	S21-My32435				X												

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Australia

Melbourne
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Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
84	TP14-0.2-0.3	May 14, 2021		Soil	S21-My32436				X												
85	TP15-0.2-0.3	May 14, 2021		Soil	S21-My32437				X												
86	TP15-0.4-0.5	May 14, 2021		Soil	S21-My32438				X												
87	QC03	May 14, 2021		Soil	S21-My32439								X		X						
88	TP16-0.0-0.1	May 14, 2021		Soil	S21-My32440				X												
89	TP16-0.4-0.5	May 14, 2021		Soil	S21-My32441				X												
90	TP17-0.2-0.3	May 14, 2021		Soil	S21-My32442				X												
91	TP17-0.4-0.5	May 14, 2021		Soil	S21-My32443				X												
92	TP18-0.2-0.3	May 14, 2021		Soil	S21-My32444				X												
93	TP18-0.4-0.5	May 14, 2021		Soil	S21-My32445				X												
94	TP19-0.2-0.3	May 14, 2021		Soil	S21-My32446				X												

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

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Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X					
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X															
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory - NATA Site # 25079																					
External Laboratory																					
95	TP20-0.0-0.1	May 14, 2021		Soil	S21-My32447				X												
96	TP20-0.2-0.3	May 14, 2021		Soil	S21-My32448				X												
97	QC04	May 14, 2021		Soil	S21-My32449				X												
98	TP21-0.2-0.3	May 14, 2021		Soil	S21-My32450				X												
99	TP21-0.4-0.5	May 14, 2021		Soil	S21-My32451				X												
100	TP22-0.2-0.3	May 14, 2021		Soil	S21-My32452				X												
101	TP22-0.4-0.5	May 14, 2021		Soil	S21-My32453				X												
102	TP22-0.9-1.0	May 14, 2021		Soil	S21-My32454				X												
103	TP22-1.0-1.5	May 14, 2021		Soil	S21-My32455				X												
104	QA04	May 14, 2021		Soil	S21-My32456				X												
105	NO LABEL	May 14, 2021		Soil	S21-My32457				X												

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6 Monterey Road
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Order No.:
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Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail	% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271										X	X					
Sydney Laboratory - NATA Site # 18217		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794	X															
Perth Laboratory - NATA Site # 23736																
Mayfield Laboratory - NATA Site # 25079																
External Laboratory																
Test Counts	2	24	3	57	2	2	5	24	19	42	2	1	23	1	2	1

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. 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 Sample Receipt Advice.

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.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

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
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Sarah Gray**

Report **795812-S**
Project name DLD NORTHERN RD DD DS
Project ID 60935
Received Date May 14, 2021

Client Sample ID			**HA01-0.0-0.1**	**HA02-0.0-0.1**	**HA03-0.0-0.1**	**HA04-0.0-0.1**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-My32353**	**S21-My32354**	**S21-My32355**	**S21-My32356**
Date Sampled			**May 13, 2021**	**May 13, 2021**	**May 13, 2021**	**May 13, 2021**
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-C36 (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	%	85	-	83	80
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
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	0.23	0.13	0.17	0.09
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			HA01-0.0-0.1	HA02-0.0-0.1	HA03-0.0-0.1	HA04-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32353	S21-My32354	S21-My32355	S21-My32356
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 13, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.23	0.13	0.17	0.09
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	0.23	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	93	103	103	105
Tetrachloro-m-xylene (surr.)	1	%	90	102	99	99
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	93	103	103	105
Tetrachloro-m-xylene (surr.)	1	%	90	102	99	99
% Clay	1	%	11	-	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	76	-	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	6.7	-	-	-
% Moisture	1	%	21	23	25	29
Heavy Metals						
Arsenic	2	mg/kg	5.2	8.5	7.5	5.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	24	36	33
Copper	5	mg/kg	130	93	160	170
Iron	20	mg/kg	19000	-	-	-
Lead	5	mg/kg	18	25	25	44
Mercury	0.1	mg/kg	-	< 0.1	-	-
Nickel	5	mg/kg	5.2	8.3	8.0	6.4
Zinc	5	mg/kg	39	34	57	62
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	21	-	-	-

Client Sample ID			HA05-0.0-0.1	HA06-0.0-0.1	HA07-0.0-0.1	HA08-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32357	S21-My32358	S21-My32359	S21-My32360
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 13, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	< 50	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	80	82	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	0.09	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.09	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	95	102	109	108
Tetrachloro-m-xylene (surr.)	1	%	94	98	102	99

Client Sample ID			HA05-0.0-0.1	HA06-0.0-0.1	HA07-0.0-0.1	HA08-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32357	S21-My32358	S21-My32359	S21-My32360
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 13, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	95	102	109	108
Tetrachloro-m-xylene (surr.)	1	%	94	98	102	99
% Clay	1	%	-	12	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	-	35	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	-	6.2	-	-
% Moisture	1	%	23	29	26	21
Heavy Metals						
Arsenic	2	mg/kg	6.7	8.7	22	7.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	25	42	16
Copper	5	mg/kg	39	26	120	80
Iron	20	mg/kg	-	30000	-	-
Lead	5	mg/kg	13	30	26	22
Mercury	0.1	mg/kg	< 0.1	-	-	< 0.1
Nickel	5	mg/kg	< 5	9.1	< 5	< 5
Zinc	5	mg/kg	26	42	58	51
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	10	-	-

Client Sample ID			HA09-0.0-0.1	[G01]HA10-0.0-0.1	HA10-0.2-0.3	HA11-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32361	S21-My32362	S21-My32363	S21-My32364
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	30	< 20	-
TRH C10-C14	20	mg/kg	-	3900	170	-
TRH C15-C28	50	mg/kg	-	14000	590	-
TRH C29-C36	50	mg/kg	-	< 250	60	-
TRH C10-C36 (Total)	50	mg/kg	-	17900	820	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	0.7	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	1.3	< 0.2	-
o-Xylene	0.1	mg/kg	-	0.6	0.1	-
Xylenes - Total*	0.3	mg/kg	-	1.9	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	102	94	-

Client Sample ID			HA09-0.0-0.1	[G01]HA10-0.0-0.1	HA10-0.2-0.3	HA11-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32361	S21-My32362	S21-My32363	S21-My32364
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	1.1	< 0.5	-
TRH C6-C10	20	mg/kg	-	120	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	120	< 20	-
TRH >C10-C16	50	mg/kg	-	7300	490	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	7298.9	490	-
TRH >C16-C34	100	mg/kg	-	11000	390	-
TRH >C34-C40	100	mg/kg	-	< 500	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	18300	880	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	0.29
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	-	< 0.2
Toxaphene	0.1	mg/kg	< 0.1	-	-	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	0.29
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	0.29
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	< 0.2
Dibutylchlorendate (surr.)	1	%	100	-	-	117
Tetrachloro-m-xylene (surr.)	1	%	92	-	-	99
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibutylchlorendate (surr.)	1	%	100	-	-	117
Tetrachloro-m-xylene (surr.)	1	%	92	-	-	99
% Moisture	1	%	30	4.9	19	27

Client Sample ID			HA09-0.0-0.1	[G01]HA10-0.0-0.1	HA10-0.2-0.3	HA11-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32361	S21-My32362	S21-My32363	S21-My32364
Date Sampled			May 13, 2021	May 13, 2021	May 13, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	6.4	< 2	8.6	3.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	38	15	21
Copper	5	mg/kg	21	48	24	130
Lead	5	mg/kg	38	< 5	22	13
Mercury	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Nickel	5	mg/kg	5.1	160	6.9	< 5
Zinc	5	mg/kg	60	130	41	36
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2	-
Acenaphthene	0.5	mg/kg	-	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	-
Anthracene	0.5	mg/kg	-	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Chrysene	0.5	mg/kg	-	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5	-
Fluoranthene	0.5	mg/kg	-	-	< 0.5	-
Fluorene	0.5	mg/kg	-	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	-
Naphthalene	0.5	mg/kg	-	-	< 0.5	-
Phenanthrene	0.5	mg/kg	-	-	< 0.5	-
Pyrene	0.5	mg/kg	-	-	< 0.5	-
Total PAH*	0.5	mg/kg	-	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	-	-	89	-
p-Terphenyl-d14 (surr.)	1	%	-	-	98	-

Client Sample ID			HA12-0.0-0.1	TP01-0.0-0.1	TP02-0.0-0.1	QC01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32365	S21-My32366	S21-My32367	S21-My32368
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
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	64	< 50	-	< 50
TRH C29-C36	50	mg/kg	52	< 50	-	< 50
TRH C10-C36 (Total)	50	mg/kg	116	< 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

Client Sample ID			HA12-0.0-0.1	TP01-0.0-0.1	TP02-0.0-0.1	QC01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32365	S21-My32366	S21-My32367	S21-My32368
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
BTEX						
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	%	92	139	-	96
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	130	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	130	< 100	-	< 100
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	91	111	101	114
Tetrachloro-m-xylene (surr.)	1	%	87	97	95	104
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			HA12-0.0-0.1	TP01-0.0-0.1	TP02-0.0-0.1	QC01
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32365	S21-My32366	S21-My32367	S21-My32368
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Dibutylchlorendate (surr.)	1	%	91	111	101	114
Tetrachloro-m-xylene (surr.)	1	%	87	97	95	104
% Moisture	1	%	18	23	13	17
Heavy Metals						
Arsenic	2	mg/kg	9.6	7.3	12	10
Cadmium	0.4	mg/kg	< 0.4	0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	20	22	26
Copper	5	mg/kg	26	200	16	140
Lead	5	mg/kg	26	22	22	23
Mercury	0.1	mg/kg	-	-	< 0.1	-
Nickel	5	mg/kg	< 5	9.3	5.1	7.1
Zinc	5	mg/kg	23	83	33	55

Client Sample ID			TP03-0.0-0.1	TP04-0.0-0.1	TP05-0.0-0.1	TP06-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32372	S21-My32373	S21-My32374	S21-My32375
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	140	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	-	< 50	140	-
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	90	96	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	200	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	200	-
% Moisture	1	%	12	17	7.0	9.6

Client Sample ID			TP03-0.0-0.1	TP04-0.0-0.1	TP05-0.0-0.1	TP06-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32372	S21-My32373	S21-My32374	S21-My32375
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	5.9	6.1	< 2	4.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	31	47	23
Copper	5	mg/kg	22	20	68	48
Lead	5	mg/kg	25	28	5.2	24
Mercury	0.1	mg/kg	< 0.1	-	-	< 0.1
Nickel	5	mg/kg	22	26	170	48
Zinc	5	mg/kg	40	29	84	88

Client Sample ID			TP07-0.0-0.1	TP08-0.0-0.1	TP09-0.0-0.1	TP10-0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32376	S21-My32377	S21-My32378	S21-My32379
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	-	< 20
TRH C10-C14	20	mg/kg	< 20	-	-	< 20
TRH C15-C28	50	mg/kg	97	-	-	78
TRH C29-C36	50	mg/kg	< 50	-	-	< 50
TRH C10-C36 (Total)	50	mg/kg	97	-	-	78
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	89	-	-	96
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	< 20
TRH >C10-C16	50	mg/kg	< 50	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	< 50
TRH >C16-C34	100	mg/kg	190	-	-	< 100
TRH >C34-C40	100	mg/kg	< 100	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	190	-	-	< 100
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			TP07-0.0-0.1	TP08-0.0-0.1	TP09-0.0-0.1	TP10-0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32376	S21-My32377	S21-My32378	S21-My32379
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	0.1	mg/kg	< 0.1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchlorendate (surr.)	1	%	131	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	109	-	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB*	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	131	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	109	-	-	-
% Moisture	1	%	8.0	15	7.6	21
Heavy Metals						
Arsenic	2	mg/kg	19	6.5	< 2	5.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	11	47	13
Copper	5	mg/kg	53	23	53	63
Lead	5	mg/kg	25	18	< 5	36
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	-
Nickel	5	mg/kg	23	5.9	200	< 5
Zinc	5	mg/kg	91	33	89	39

Client Sample ID			TP11-0.0-0.1	TP12-0.9-1.0	TP13-0.2-0.3	TP14-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32380	S21-My32381	S21-My32382	S21-My32383
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	< 20	-
TRH C10-C14	20	mg/kg	-	-	< 20	-
TRH C15-C28	50	mg/kg	-	-	< 50	-
TRH C29-C36	50	mg/kg	-	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	-	-	< 50	-
BTEX						
Benzene	0.1	mg/kg	-	-	< 0.1	-
Toluene	0.1	mg/kg	-	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	-
o-Xylene	0.1	mg/kg	-	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	-	87	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	-
TRH >C10-C16	50	mg/kg	-	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	-
TRH >C16-C34	100	mg/kg	-	-	< 100	-
TRH >C34-C40	100	mg/kg	-	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-BHC	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-BHC	0.05	mg/kg	-	-	< 0.05	-
d-BHC	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.2	mg/kg	-	-	< 0.2	-
Toxaphene	0.1	mg/kg	-	-	< 0.1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.2	-
Dibutylchlorendate (surr.)	1	%	-	-	109	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	96	-

Client Sample ID			TP11-0.0-0.1	TP12-0.9-1.0	TP13-0.2-0.3	TP14-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32380	S21-My32381	S21-My32382	S21-My32383
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1232	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	-	< 0.5	-
Total PCB*	0.5	mg/kg	-	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	-	109	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	96	-
% Moisture	1	%	57	51	14	15
Heavy Metals						
Arsenic	2	mg/kg	3.5	6.1	7.2	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.3	24	11	26
Copper	5	mg/kg	59	35	16	14
Lead	5	mg/kg	9.1	22	19	20
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Nickel	5	mg/kg	< 5	31	< 5	10
Zinc	5	mg/kg	30	140	12	21

Client Sample ID			TP15-0.0-0.1	SED01	SED02	SED03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32384	S21-My32385	S21-My32386	S21-My32387
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	65	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	65	-	< 50	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	86	-	75	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-

Client Sample ID			TP15-0.0-0.1	SED01	SED02	SED03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32384	S21-My32385	S21-My32386	S21-My32387
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-
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	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
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	-	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	-	107	97	94
Tetrachloro-m-xylene (surr.)	1	%	-	103	99	96
% Moisture	1	%	24	23	24	22
Heavy Metals						
Arsenic	2	mg/kg	5.7	11	9.7	12
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	16	24	20	13
Copper	5	mg/kg	170	16	10	9.1
Lead	5	mg/kg	19	23	15	15
Mercury	0.1	mg/kg	-	< 0.1	-	< 0.1
Nickel	5	mg/kg	6.1	< 5	< 5	< 5
Zinc	5	mg/kg	68	17	11	11

Client Sample ID			TP16-0.2-0.3	TP17-0.0-0.1	TP18-0.0-0.1	TP19-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32389	S21-My32390	S21-My32391	S21-My32392
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	87	90	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	0.13	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-BHC	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-BHC	0.05	mg/kg	< 0.05	-	-	-
d-BHC	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.2	mg/kg	< 0.2	-	-	-
Toxaphene	0.1	mg/kg	< 0.1	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	0.13	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	-	-	-
Dibutylchlorendate (surr.)	1	%	92	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	96	-	-	-

Client Sample ID			TP16-0.2-0.3	TP17-0.0-0.1	TP18-0.0-0.1	TP19-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32389	S21-My32390	S21-My32391	S21-My32392
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	-	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	-	-
Total PCB*	0.5	mg/kg	< 0.5	-	-	-
Dibutylchlorendate (surr.)	1	%	92	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	96	-	-	-
% Moisture	1	%	18	16	26	14
Heavy Metals						
Arsenic	2	mg/kg	13	7.7	6.6	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	15	14	30
Copper	5	mg/kg	16	86	39	35
Lead	5	mg/kg	35	24	17	16
Mercury	0.1	mg/kg	-	-	< 0.1	< 0.1
Nickel	5	mg/kg	8.9	5.6	< 5	44
Zinc	5	mg/kg	35	38	34	83

Client Sample ID			TP20-0.4-0.5	TP20-0.9-1.0	QC05	TP21-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32393	S21-My32394	S21-My32395	S21-My32396
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
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	< 200
TRH C15-C28	50	mg/kg	< 50	-	< 50	< 500
TRH C29-C36	50	mg/kg	< 50	-	< 50	< 500
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	< 500
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	%	99	-	87	94
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	< 500
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 500
TRH >C16-C34	100	mg/kg	< 100	-	< 100	1400

Client Sample ID			TP20-0.4-0.5	TP20-0.9-1.0	QC05	TP21-0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-My32393	S21-My32394	S21-My32395	S21-My32396
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 1000
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	1400
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
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	< 0.2	< 0.2	< 0.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	-
Dibutylchlorendate (surr.)	1	%	114	105	97	-
Tetrachloro-m-xylene (surr.)	1	%	98	99	98	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	114	-	97	-
Tetrachloro-m-xylene (surr.)	1	%	98	-	98	-
% Moisture	1	%	16	12	18	6.9
Heavy Metals						
Arsenic	2	mg/kg	6.2	7.1	5.4	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	7.5	12	14
Copper	5	mg/kg	53	60	47	36
Lead	5	mg/kg	42	19	29	19

Client Sample ID			TP20-0.4-0.5	TP20-0.9-1.0	QC05	TP21-0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-My32393**	**S21-My32394**	**S21-My32395**	**S21-My32396**
Date Sampled			**May 14, 2021**	**May 14, 2021**	**May 14, 2021**	**May 14, 2021**
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.1	mg/kg	-	< 0.1	-	-
Nickel	5	mg/kg	6.1	< 5	< 5	20
Zinc	5	mg/kg	150	7.8	62	31

Client Sample ID			TP22-0.0-0.1	QC03
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S21-My32397**	**S21-My32439**
Date Sampled			**May 14, 2021**	**May 14, 2021**
Test/Reference	LOR	Unit		
% Moisture	1	%	14	20
Heavy Metals				
Arsenic	2	mg/kg	8.0	5.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	16	15
Copper	5	mg/kg	29	160
Lead	5	mg/kg	61	18
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	15	6.1
Zinc	5	mg/kg	83	48

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Organochlorine Pesticides	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	May 19, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Clay	Brisbane	May 24, 2021	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25°C as rec.)	Sydney	May 19, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Heavy Metals	Sydney	May 19, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	May 20, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	May 20, 2021	180 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
% Moisture	Sydney	May 18, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B5			
Metals M7	Sydney	May 19, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Metals M8	Sydney	May 19, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Polycyclic Aromatic Hydrocarbons	Sydney	May 19, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	HA01-0.0-0.1	May 13, 2021		Soil	S21-My32353	X	X			X	X			X	X	X		X		
2	HA02-0.0-0.1	May 13, 2021		Soil	S21-My32354		X						X	X	X					
3	HA03-0.0-0.1	May 13, 2021		Soil	S21-My32355		X							X	X			X		
4	HA04-0.0-0.1	May 13, 2021		Soil	S21-My32356		X							X	X			X		
5	HA05-0.0-0.1	May 13, 2021		Soil	S21-My32357		X						X	X	X					
6	HA06-0.0-0.1	May 13, 2021		Soil	S21-My32358	X	X			X	X			X	X	X		X		
7	HA07-0.0-0.1	May 13, 2021		Soil	S21-My32359		X							X	X			X		
8	HA08-0.0-0.1	May 13, 2021		Soil	S21-My32360		X						X	X	X					
9	HA09-0.0-0.1	May 13, 2021		Soil	S21-My32361		X						X	X	X					

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

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Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
10	HA10-0.0-0.1	May 13, 2021		Soil	S21-My32362										X			X		
11	HA10-0.2-0.3	May 13, 2021		Soil	S21-My32363										X		X			
12	HA11-0.0-0.1	May 14, 2021		Soil	S21-My32364		X						X	X	X					
13	HA12-0.0-0.1	May 14, 2021		Soil	S21-My32365		X							X	X			X		
14	TP01-0.0-0.1	May 14, 2021		Soil	S21-My32366		X							X	X			X		
15	TP02-0.0-0.1	May 14, 2021		Soil	S21-My32367								X	X	X					
16	QC01	May 14, 2021		Soil	S21-My32368									X	X			X		
17	FRAG02	May 14, 2021		Building Materials	S21-My32369			X												
18	FRAG03	May 14, 2021		Building Materials	S21-My32370			X												

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

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Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
19	FRAG01	May 14, 2021		Building Materials	S21-My32371			X												
20	TP03-0.0-0.1	May 14, 2021		Soil	S21-My32372		X						X		X					
21	TP04-0.0-0.1	May 14, 2021		Soil	S21-My32373										X			X		
22	TP05-0.0-0.1	May 14, 2021		Soil	S21-My32374										X			X		
23	TP06-0.0-0.1	May 14, 2021		Soil	S21-My32375								X		X					
24	TP07-0.0-0.1	May 14, 2021		Soil	S21-My32376		X							X	X			X		
25	TP08-0.0-0.1	May 14, 2021		Soil	S21-My32377		X						X		X					
26	TP09-0.0-0.1	May 14, 2021		Soil	S21-My32378								X		X					
27	TP10-0.4-0.5	May 14, 2021		Soil	S21-My32379										X			X		
28	TP11-0.0-0.1	May 14, 2021		Soil	S21-My32380								X		X					

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

Perth
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Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

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Address: Level 1, 50 Margaret St
Sydney
NSW 2000

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Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
29	TP12-0.9-1.0	May 14, 2021		Soil	S21-My32381		X						X		X					
30	TP13-0.2-0.3	May 14, 2021		Soil	S21-My32382		X							X	X			X		
31	TP14-0.0-0.1	May 14, 2021		Soil	S21-My32383		X						X		X					
32	TP15-0.0-0.1	May 14, 2021		Soil	S21-My32384										X			X		
33	SED01	May 14, 2021		Soil	S21-My32385							X	X		X					
34	SED02	May 14, 2021		Soil	S21-My32386							X			X			X		
35	SED03	May 14, 2021		Soil	S21-My32387							X	X		X					
36	W01	May 14, 2021		Water	S21-My32388													X		
37	TP16-0.2-0.3	May 14, 2021		Soil	S21-My32389		X							X	X			X		
38	TP17-0.0-0.1	May 14, 2021		Soil	S21-My32390										X			X		
39	TP18-0.0-0.1	May 14, 2021		Soil	S21-My32391		X						X		X					

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
40	TP19-0.0-0.1	May 14, 2021		Soil	S21-My32392								X		X					
41	TP20-0.4-0.5	May 14, 2021		Soil	S21-My32393		X							X	X			X		
42	TP20-0.9-1.0	May 14, 2021		Soil	S21-My32394							X	X		X					
43	QC05	May 14, 2021		Soil	S21-My32395									X	X			X		
44	TP21-0.0-0.1	May 14, 2021		Soil	S21-My32396										X			X		
45	TP22-0.0-0.1	May 14, 2021		Soil	S21-My32397		X						X		X					
46	TS	May 14, 2021		Water	S21-My32398															X
47	TB	May 14, 2021		Water	S21-My32399														X	
48	HA01-0.2-0.3	May 14, 2021		Soil	S21-My32400				X											
49	HA02-0.2-0.3	May 14, 2021		Soil	S21-My32401				X											
50	HA03-0.2-0.3	May 14, 2021		Soil	S21-My32402				X											

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
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Sydney
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16 Mars Road
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Fax:

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
51	HA04-0.2-0.3	May 14, 2021		Soil	S21-My32403				X											
52	HA05-0.2-0.3	May 14, 2021		Soil	S21-My32404				X											
53	HA06-0.2-0.3	May 14, 2021		Soil	S21-My32405				X											
54	HA07-0.2-0.3	May 14, 2021		Soil	S21-My32406				X											
55	HA08-0.2-0.3	May 14, 2021		Soil	S21-My32407				X											
56	HA09-0.2-0.3	May 14, 2021		Soil	S21-My32408				X											
57	HA11-0.2-0.3	May 14, 2021		Soil	S21-My32409				X											
58	TP01-0.2-0.3	May 14, 2021		Soil	S21-My32410				X											
59	TP01-0.4-0.5	May 14, 2021		Soil	S21-My32411				X											
60	TP02-0.2-0.3	May 14, 2021		Soil	S21-My32412				X											
61	TP02-0.4-0.5	May 14, 2021		Soil	S21-My32413				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
62	TP02-0.9-1.0	May 14, 2021		Soil	S21-My32414				X											
63	TP02-1.0-1.5	May 14, 2021		Soil	S21-My32415				X											
64	TP03-0.2-0.3	May 14, 2021		Soil	S21-My32416				X											
65	TP04-0.2-0.3	May 14, 2021		Soil	S21-My32417				X											
66	TP04-0.4-0.5	May 14, 2021		Soil	S21-My32418				X											
67	TP06-0.2-0.3	May 14, 2021		Soil	S21-My32419				X											
68	TP06-0.4-0.5	May 14, 2021		Soil	S21-My32420				X											
69	QC02	May 14, 2021		Soil	S21-My32421				X											
70	TP07-0.2-0.3	May 14, 2021		Soil	S21-My32422				X											
71	TP07-0.4-0.5	May 14, 2021		Soil	S21-My32423				X											
72	TP08-0.2-0.3	May 14, 2021		Soil	S21-My32424				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
73	TP08-0.4-0.5	May 14, 2021		Soil	S21-My32425				X											
74	TP09-0.2-0.3	May 14, 2021		Soil	S21-My32426				X											
75	TP10-0.0-0.1	May 14, 2021		Soil	S21-My32427				X											
76	TP10-0.2-0.3	May 14, 2021		Soil	S21-My32428				X											
77	TP10-0.9-1.0	May 14, 2021		Soil	S21-My32429				X											
78	TP12-0.0-0.1	May 14, 2021		Soil	S21-My32430				X											
79	TP12-0.2-0.3	May 14, 2021		Soil	S21-My32431				X											
80	TP12-0.4-0.5	May 14, 2021		Soil	S21-My32432				X											
81	TP12-1.0-1.5	May 14, 2021		Soil	S21-My32433				X											
82	TP12-1.5-2.0	May 14, 2021		Soil	S21-My32434				X											
83	TP13-0.0-0.1	May 14, 2021		Soil	S21-My32435				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
84	TP14-0.2-0.3	May 14, 2021		Soil	S21-My32436				X											
85	TP15-0.2-0.3	May 14, 2021		Soil	S21-My32437				X											
86	TP15-0.4-0.5	May 14, 2021		Soil	S21-My32438				X											
87	QC03	May 14, 2021		Soil	S21-My32439								X		X					
88	TP16-0.0-0.1	May 14, 2021		Soil	S21-My32440				X											
89	TP16-0.4-0.5	May 14, 2021		Soil	S21-My32441				X											
90	TP17-0.2-0.3	May 14, 2021		Soil	S21-My32442				X											
91	TP17-0.4-0.5	May 14, 2021		Soil	S21-My32443				X											
92	TP18-0.2-0.3	May 14, 2021		Soil	S21-My32444				X											
93	TP18-0.4-0.5	May 14, 2021		Soil	S21-My32445				X											
94	TP19-0.2-0.3	May 14, 2021		Soil	S21-My32446				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
95	TP20-0.0-0.1	May 14, 2021		Soil	S21-My32447				X											
96	TP20-0.2-0.3	May 14, 2021		Soil	S21-My32448				X											
97	QC04	May 14, 2021		Soil	S21-My32449				X											
98	TP21-0.2-0.3	May 14, 2021		Soil	S21-My32450				X											
99	TP21-0.4-0.5	May 14, 2021		Soil	S21-My32451				X											
100	TP22-0.2-0.3	May 14, 2021		Soil	S21-My32452				X											
101	TP22-0.4-0.5	May 14, 2021		Soil	S21-My32453				X											
102	TP22-0.9-1.0	May 14, 2021		Soil	S21-My32454				X											
103	TP22-1.0-1.5	May 14, 2021		Soil	S21-My32455				X											
104	QA04	May 14, 2021		Soil	S21-My32456				X											
105	NO LABEL	May 14, 2021		Soil	S21-My32457				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271										X	X				
Sydney Laboratory - NATA Site # 18217		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794	X														
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
Test Counts	2	24	3	57	2	2	4	24	19	42	2	1	24	2	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram | **mg/L:** milligrams per litre | **ug/L:** micrograms per litre

ppm: Parts per million | **ppb:** Parts per billion | **%:** Percentage

org/100mL: Organisms per 100 millilitres | **NTU:** Nephelometric Turbidity Units | **MPN/100mL:** Most Probable Number of organisms per 100 millilitres

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 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							
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	
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	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Conductivity (1:5 aqueous extract at 25°C as rec.)	uS/cm	< 10			10	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 20			20	Pass	
Lead	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	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	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	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	77			70-130	Pass	
TRH C10-C14	%	74			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Xylenes - Total*	%	100			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	%	102			70-130	Pass	
TRH C6-C10	%	78			70-130	Pass	
TRH >C10-C16	%	77			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	92			70-130	Pass	
4.4'-DDD	%	90			70-130	Pass	
4.4'-DDE	%	92			70-130	Pass	
4.4'-DDT	%	76			70-130	Pass	
a-BHC	%	90			70-130	Pass	
Aldrin	%	96			70-130	Pass	
b-BHC	%	87			70-130	Pass	
d-BHC	%	89			70-130	Pass	
Dieldrin	%	92			70-130	Pass	
Endosulfan I	%	95			70-130	Pass	
Endosulfan II	%	88			70-130	Pass	
Endosulfan sulphate	%	83			70-130	Pass	
Endrin	%	79			70-130	Pass	
Endrin ketone	%	82			70-130	Pass	
g-BHC (Lindane)	%	91			70-130	Pass	
Heptachlor	%	82			70-130	Pass	
Heptachlor epoxide	%	98			70-130	Pass	
Hexachlorobenzene	%	98			70-130	Pass	
Methoxychlor	%	77			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	84			70-130	Pass	
Aroclor-1260	%	91			70-130	Pass	
LCS - % Recovery							
Conductivity (1:5 aqueous extract at 25°C as rec.)	%	99			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	95			80-120	Pass	
Arsenic	%	100			80-120	Pass	
Cadmium	%	117			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	100			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	102			80-120	Pass	
Copper	%	105			80-120	Pass	
Iron	%	106			80-120	Pass	
Lead	%	102			80-120	Pass	
Lead	%	107			80-120	Pass	
Mercury	%	111			80-120	Pass	
Nickel	%	102			80-120	Pass	
Nickel	%	107			80-120	Pass	
Zinc	%	98			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	90			70-130	Pass	
Acenaphthylene	%	90			70-130	Pass	
Anthracene	%	90			70-130	Pass	
Benz(a)anthracene	%	94			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene			%	90			70-130	Pass	
Benzo(b&j)fluoranthene			%	88			70-130	Pass	
Benzo(g.h.i)perylene			%	92			70-130	Pass	
Benzo(k)fluoranthene			%	97			70-130	Pass	
Chrysene			%	89			70-130	Pass	
Dibenz(a.h)anthracene			%	90			70-130	Pass	
Fluoranthene			%	88			70-130	Pass	
Fluorene			%	94			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	91			70-130	Pass	
Naphthalene			%	89			70-130	Pass	
Phenanthrene			%	89			70-130	Pass	
Pyrene			%	87			70-130	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	S21-My37340	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-My32361	CP	%	112			70-130	Pass	
4.4'-DDD	S21-My32361	CP	%	120			70-130	Pass	
4.4'-DDE	S21-My32361	CP	%	114			70-130	Pass	
4.4'-DDT	S21-My32361	CP	%	83			70-130	Pass	
a-BHC	S21-My32361	CP	%	106			70-130	Pass	
Aldrin	S21-My32361	CP	%	119			70-130	Pass	
b-BHC	S21-My32361	CP	%	100			70-130	Pass	
d-BHC	S21-My32361	CP	%	106			70-130	Pass	
Dieldrin	S21-My32361	CP	%	115			70-130	Pass	
Endosulfan I	S21-My32361	CP	%	118			70-130	Pass	
Endosulfan II	S21-My32361	CP	%	111			70-130	Pass	
Endosulfan sulphate	S21-My32361	CP	%	107			70-130	Pass	
Endrin	S21-My32361	CP	%	103			70-130	Pass	
Endrin aldehyde	S21-My32361	CP	%	118			70-130	Pass	
Endrin ketone	S21-My32361	CP	%	105			70-130	Pass	
g-BHC (Lindane)	S21-My32361	CP	%	108			70-130	Pass	
Heptachlor	S21-My32361	CP	%	99			70-130	Pass	
Heptachlor epoxide	S21-My32361	CP	%	120			70-130	Pass	
Hexachlorobenzene	S21-My32361	CP	%	118			70-130	Pass	
Methoxychlor	S21-My32361	CP	%	81			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-My32365	CP	%	86			70-130	Pass	
Toluene	S21-My32365	CP	%	85			70-130	Pass	
Ethylbenzene	S21-My32365	CP	%	85			70-130	Pass	
m&p-Xylenes	S21-My32365	CP	%	87			70-130	Pass	
o-Xylene	S21-My32365	CP	%	87			70-130	Pass	
Xylenes - Total*	S21-My32365	CP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S21-My32365	CP	%	87			70-130	Pass	
TRH C6-C10	S21-My32365	CP	%	70			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S21-My32366	CP	%	74			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S21-My32366	CP	%	77			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-My32372	CP	%	87			75-125	Pass	
Cadmium	S21-My32372	CP	%	87			75-125	Pass	
Chromium	S21-My32372	CP	%	107			75-125	Pass	
Copper	S21-My32372	CP	%	94			75-125	Pass	
Lead	S21-My32372	CP	%	99			75-125	Pass	
Mercury	S21-My32372	CP	%	99			75-125	Pass	
Nickel	S21-My32372	CP	%	99			75-125	Pass	
Zinc	S21-My32372	CP	%	86			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-My32382	CP	%	84			75-125	Pass	
Cadmium	S21-My32382	CP	%	86			75-125	Pass	
Chromium	S21-My32382	CP	%	89			75-125	Pass	
Copper	S21-My32382	CP	%	88			75-125	Pass	
Lead	S21-My32382	CP	%	97			75-125	Pass	
Mercury	S21-My32382	CP	%	97			75-125	Pass	
Nickel	S21-My32382	CP	%	90			75-125	Pass	
Zinc	S21-My32382	CP	%	87			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S21-My32390	CP	%	80			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S21-My32390	CP	%	84			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-My32393	CP	%	101			75-125	Pass	
Cadmium	S21-My32393	CP	%	100			75-125	Pass	
Chromium	S21-My32393	CP	%	100			75-125	Pass	
Copper	S21-My32393	CP	%	108			75-125	Pass	
Mercury	S21-My32393	CP	%	99			75-125	Pass	
Nickel	S21-My32393	CP	%	97			75-125	Pass	
Zinc	S21-My32393	CP	%	88			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S21-My32395	CP	%	74			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S21-My32395	CP	%	78			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	S21-My32355	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-My32355	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-My32355	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-My32355	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-My32355	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-My32355	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-My32355	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S21-My32355	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-My32355	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-My32357	CP	%	23	22	4.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My32358	CP	mg/kg	8.7	30	110	30%	Fail	Q02
Cadmium	S21-My32358	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My32358	CP	mg/kg	25	28	9.0	30%	Pass	
Copper	S21-My32358	CP	mg/kg	26	28	9.0	30%	Pass	
Iron	S21-My32358	CP	mg/kg	30000	47000	45	30%	Fail	Q02
Lead	S21-My32358	CP	mg/kg	30	32	5.0	30%	Pass	
Mercury	S21-My32358	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-My32358	CP	mg/kg	9.1	13	34	30%	Fail	Q15
Zinc	S21-My32358	CP	mg/kg	42	55	27	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-My32359	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-My32359	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-My32359	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S21-My32359	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-My32359	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-My32359	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-My32360	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-My32360	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-My32360	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S21-My32360	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-My32360	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-My32360	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S21-My32363	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-My32363	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-My32363	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-My32363	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-My32363	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-My32363	CP	mg/kg	0.1	0.1	8.0	30%	Pass	
Xylenes - Total*	S21-My32363	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S21-My32363	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	S21-My32363	CP	uS/cm	140	140	<1	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	S21-My32363	CP	pH Units	6.6	6.7	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S21-My32365	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-My32365	CP	mg/kg	64	< 50	47	30%	Fail	Q15
TRH C29-C36	S21-My32365	CP	mg/kg	52	54	5.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S21-My32365	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-My32365	CP	mg/kg	130	100	24	30%	Pass	
TRH >C34-C40	S21-My32365	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	S21-My32365	CP	uS/cm	230	240	4.2	30%	Pass	
pH (1:5 Aqueous extract at 25°C as rec.)	S21-My32365	CP	pH Units	5.3	5.3	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My32368	CP	mg/kg	10	5.8	56	30%	Fail	Q15
Cadmium	S21-My32368	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My32368	CP	mg/kg	26	16	46	30%	Fail	Q15
Copper	S21-My32368	CP	mg/kg	140	150	13	30%	Pass	
Lead	S21-My32368	CP	mg/kg	23	20	17	30%	Pass	
Mercury	S21-My32368	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-My32368	CP	mg/kg	7.1	6.9	3.0	30%	Pass	
Zinc	S21-My32368	CP	mg/kg	55	53	5.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-My32380	CP	%	57	58	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My32381	CP	mg/kg	6.1	3.0	69	30%	Fail	Q15
Cadmium	S21-My32381	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My32381	CP	mg/kg	24	10.0	81	30%	Fail	Q15
Copper	S21-My32381	CP	mg/kg	35	21	47	30%	Fail	Q15
Lead	S21-My32381	CP	mg/kg	22	15	36	30%	Fail	Q15
Mercury	S21-My32381	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-My32381	CP	mg/kg	31	14	73	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S21-My32386	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-My32386	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-My32386	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-My32386	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-My32386	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-My32386	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-My32386	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S21-My32386	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-My32386	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S21-My32389	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-My32389	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-My32389	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S21-My32389	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-My32389	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-My32389	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-My32391	CP	%	26	23	13	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My32392	CP	mg/kg	< 2	4.1	76	30%	Fail	Q15
Cadmium	S21-My32392	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My32392	CP	mg/kg	30	21	35	30%	Fail	Q15
Copper	S21-My32392	CP	mg/kg	35	45	24	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S21-My32392	CP	mg/kg	16	26	48	30%	Fail	Q15
Mercury	S21-My32392	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-My32392	CP	mg/kg	44	36	21	30%	Pass	
Zinc	S21-My32392	CP	mg/kg	83	110	27	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-My32393	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-My32393	CP	mg/kg	< 0.05	0.06	97	30%	Fail	Q15
4.4'-DDT	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-My32393	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-My32393	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-My32393	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-My32393	CP	mg/kg	6.2	4.5	33	30%	Fail	Q15
Cadmium	S21-My32393	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-My32393	CP	mg/kg	15	11	30	30%	Pass	
Copper	S21-My32393	CP	mg/kg	53	41	24	30%	Pass	
Lead	S21-My32393	CP	mg/kg	42	24	54	30%	Fail	Q15
Mercury	S21-My32393	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-My32393	CP	mg/kg	6.1	< 5	30	30%	Pass	
Zinc	S21-My32393	CP	mg/kg	150	120	28	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(g.h.i)perylene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-My32393	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
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
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Charl Du Preez	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
John Nguyen	Senior Analyst-Metal (NSW)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Scott Beddoes	Senior Analyst-Inorganic (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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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Sarah Gray**

Report **795812-W**
Project name DLD NORTHERN RD DD DS
Project ID 60935
Received Date May 14, 2021

Client Sample ID			**W01**	**TS**	**TB**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-My32388**	**S21-My32398**	**S21-My32399**
Date Sampled			**May 14, 2021**	**May 14, 2021**	**May 14, 2021**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	< 0.02	-	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	< 0.001	-	< 0.001
Toluene	0.001	mg/L	< 0.001	-	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	107	-	104
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	< 0.01	-	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	-	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	-
Organochlorine Pesticides					
Chlordanes - Total	0.002	mg/L	< 0.002	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	-	-

Client Sample ID			W01	TS	TB
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-My32388	S21-My32398	S21-My32399
Date Sampled			May 14, 2021	May 14, 2021	May 14, 2021
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Endrin	0.0001	mg/L	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	-	-
Methoxychlor	0.0002	mg/L	< 0.0002	-	-
Toxaphene	0.001	mg/L	< 0.001	-	-
Aldrin and Dieldrin (Total)*	0.0002	mg/L	< 0.0002	-	-
DDT + DDE + DDD (Total)*	0.0002	mg/L	< 0.0002	-	-
Vic EPA IWRG 621 OCP (Total)*	0.002	mg/L	< 0.002	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.002	mg/L	< 0.002	-	-
Dibutylchlorendate (surr.)	1	%	INT	-	-
Tetrachloro-m-xylene (surr.)	1	%	INT	-	-
Heavy Metals					
Arsenic (filtered)	0.001	mg/L	0.004	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-
Copper (filtered)	0.001	mg/L	0.005	-	-
Lead (filtered)	0.001	mg/L	< 0.001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-
Nickel (filtered)	0.001	mg/L	< 0.001	-	-
Zinc (filtered)	0.005	mg/L	< 0.005	-	-
TRH C6-C10	1	%	-	78	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	110	-
TRH C6-C9	1	%	-	80	-
BTEX					
Benzene	1	%	-	110	-
Ethylbenzene	1	%	-	94	-
m&p-Xylenes	1	%	-	120	-
o-Xylene	1	%	-	93	-
Toluene	1	%	-	99	-
Xylenes - Total	1	%	-	100	-
4-Bromofluorobenzene (surr.)	1	%	-	105	-

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	May 17, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	May 17, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 17, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	May 17, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 17, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Sydney	May 21, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	May 21, 2021	7 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
NATA # 1261
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: DLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 795812
Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	HA01-0.0-0.1	May 13, 2021		Soil	S21-My32353	X	X			X	X			X	X	X		X		
2	HA02-0.0-0.1	May 13, 2021		Soil	S21-My32354		X						X	X	X					
3	HA03-0.0-0.1	May 13, 2021		Soil	S21-My32355		X							X	X			X		
4	HA04-0.0-0.1	May 13, 2021		Soil	S21-My32356		X							X	X			X		
5	HA05-0.0-0.1	May 13, 2021		Soil	S21-My32357		X						X	X	X					
6	HA06-0.0-0.1	May 13, 2021		Soil	S21-My32358	X	X			X	X			X	X	X		X		
7	HA07-0.0-0.1	May 13, 2021		Soil	S21-My32359		X							X	X			X		
8	HA08-0.0-0.1	May 13, 2021		Soil	S21-My32360		X						X	X	X					
9	HA09-0.0-0.1	May 13, 2021		Soil	S21-My32361		X						X	X	X					

Date Reported:May 25, 2021

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Welshpool WA 6106
Phone : +61 8 9251 9600
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
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Sydney
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Order No.:
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Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
10	HA10-0.0-0.1	May 13, 2021		Soil	S21-My32362										X			X		
11	HA10-0.2-0.3	May 13, 2021		Soil	S21-My32363										X		X			
12	HA11-0.0-0.1	May 14, 2021		Soil	S21-My32364		X						X	X	X					
13	HA12-0.0-0.1	May 14, 2021		Soil	S21-My32365		X							X	X			X		
14	TP01-0.0-0.1	May 14, 2021		Soil	S21-My32366		X							X	X			X		
15	TP02-0.0-0.1	May 14, 2021		Soil	S21-My32367								X	X	X					
16	QC01	May 14, 2021		Soil	S21-My32368									X	X			X		
17	FRAG02	May 14, 2021		Building Materials	S21-My32369			X												
18	FRAG03	May 14, 2021		Building Materials	S21-My32370			X												

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

Australia

Melbourne
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Dandenong South VIC 3175
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Site # 1254 & 14271

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

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

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

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

New Zealand

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

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
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Sydney
NSW 2000

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Project ID: 60935

Order No.:
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Phone: 02 8245 0300
Fax:

Received: May 14, 2021 4:30 PM
Due: May 21, 2021
Priority: 5 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
19	FRAG01	May 14, 2021		Building Materials	S21-My32371			X												
20	TP03-0.0-0.1	May 14, 2021		Soil	S21-My32372		X						X		X					
21	TP04-0.0-0.1	May 14, 2021		Soil	S21-My32373										X			X		
22	TP05-0.0-0.1	May 14, 2021		Soil	S21-My32374										X			X		
23	TP06-0.0-0.1	May 14, 2021		Soil	S21-My32375								X		X					
24	TP07-0.0-0.1	May 14, 2021		Soil	S21-My32376		X							X	X			X		
25	TP08-0.0-0.1	May 14, 2021		Soil	S21-My32377		X						X		X					
26	TP09-0.0-0.1	May 14, 2021		Soil	S21-My32378								X		X					
27	TP10-0.4-0.5	May 14, 2021		Soil	S21-My32379										X			X		
28	TP11-0.0-0.1	May 14, 2021		Soil	S21-My32380								X		X					

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

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Sydney
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Order No.:
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Phone: 02 8245 0300
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Received: May 14, 2021 4:30 PM
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Priority: 5 Day
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Eurofins Analytical Services Manager : Ursula Long

Sample Detail						% Clay	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	Iron	pH (1:5 Aqueous extract at 25°C as rec.)	Organochlorine Pesticides	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	Eurofins Suite B5	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
29	TP12-0.9-1.0	May 14, 2021		Soil	S21-My32381		X						X		X					
30	TP13-0.2-0.3	May 14, 2021		Soil	S21-My32382		X							X	X			X		
31	TP14-0.0-0.1	May 14, 2021		Soil	S21-My32383		X						X		X					
32	TP15-0.0-0.1	May 14, 2021		Soil	S21-My32384										X			X		
33	SED01	May 14, 2021		Soil	S21-My32385							X	X		X					
34	SED02	May 14, 2021		Soil	S21-My32386							X			X			X		
35	SED03	May 14, 2021		Soil	S21-My32387							X	X		X					
36	W01	May 14, 2021		Water	S21-My32388													X		
37	TP16-0.2-0.3	May 14, 2021		Soil	S21-My32389		X							X	X			X		
38	TP17-0.0-0.1	May 14, 2021		Soil	S21-My32390										X			X		
39	TP18-0.0-0.1	May 14, 2021		Soil	S21-My32391		X						X		X					

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Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
40	TP19-0.0-0.1	May 14, 2021		Soil	S21-My32392								X		X					
41	TP20-0.4-0.5	May 14, 2021		Soil	S21-My32393		X							X	X			X		
42	TP20-0.9-1.0	May 14, 2021		Soil	S21-My32394							X	X		X					
43	QC05	May 14, 2021		Soil	S21-My32395									X	X			X		
44	TP21-0.0-0.1	May 14, 2021		Soil	S21-My32396										X			X		
45	TP22-0.0-0.1	May 14, 2021		Soil	S21-My32397		X						X		X					
46	TS	May 14, 2021		Water	S21-My32398															X
47	TB	May 14, 2021		Water	S21-My32399														X	
48	HA01-0.2-0.3	May 14, 2021		Soil	S21-My32400				X											
49	HA02-0.2-0.3	May 14, 2021		Soil	S21-My32401				X											
50	HA03-0.2-0.3	May 14, 2021		Soil	S21-My32402				X											

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Australia

Melbourne
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Dandenong South VIC 3175
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NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
51	HA04-0.2-0.3	May 14, 2021		Soil	S21-My32403				X											
52	HA05-0.2-0.3	May 14, 2021		Soil	S21-My32404				X											
53	HA06-0.2-0.3	May 14, 2021		Soil	S21-My32405				X											
54	HA07-0.2-0.3	May 14, 2021		Soil	S21-My32406				X											
55	HA08-0.2-0.3	May 14, 2021		Soil	S21-My32407				X											
56	HA09-0.2-0.3	May 14, 2021		Soil	S21-My32408				X											
57	HA11-0.2-0.3	May 14, 2021		Soil	S21-My32409				X											
58	TP01-0.2-0.3	May 14, 2021		Soil	S21-My32410				X											
59	TP01-0.4-0.5	May 14, 2021		Soil	S21-My32411				X											
60	TP02-0.2-0.3	May 14, 2021		Soil	S21-My32412				X											
61	TP02-0.4-0.5	May 14, 2021		Soil	S21-My32413				X											

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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Phone: 02 8245 0300
Fax:

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Priority: 5 Day
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Eurofins Analytical Services Manager : Ursula Long

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
62	TP02-0.9-1.0	May 14, 2021		Soil	S21-My32414				X											
63	TP02-1.0-1.5	May 14, 2021		Soil	S21-My32415				X											
64	TP03-0.2-0.3	May 14, 2021		Soil	S21-My32416				X											
65	TP04-0.2-0.3	May 14, 2021		Soil	S21-My32417				X											
66	TP04-0.4-0.5	May 14, 2021		Soil	S21-My32418				X											
67	TP06-0.2-0.3	May 14, 2021		Soil	S21-My32419				X											
68	TP06-0.4-0.5	May 14, 2021		Soil	S21-My32420				X											
69	QC02	May 14, 2021		Soil	S21-My32421				X											
70	TP07-0.2-0.3	May 14, 2021		Soil	S21-My32422				X											
71	TP07-0.4-0.5	May 14, 2021		Soil	S21-My32423				X											
72	TP08-0.2-0.3	May 14, 2021		Soil	S21-My32424				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
73	TP08-0.4-0.5	May 14, 2021		Soil	S21-My32425				X											
74	TP09-0.2-0.3	May 14, 2021		Soil	S21-My32426				X											
75	TP10-0.0-0.1	May 14, 2021		Soil	S21-My32427				X											
76	TP10-0.2-0.3	May 14, 2021		Soil	S21-My32428				X											
77	TP10-0.9-1.0	May 14, 2021		Soil	S21-My32429				X											
78	TP12-0.0-0.1	May 14, 2021		Soil	S21-My32430				X											
79	TP12-0.2-0.3	May 14, 2021		Soil	S21-My32431				X											
80	TP12-0.4-0.5	May 14, 2021		Soil	S21-My32432				X											
81	TP12-1.0-1.5	May 14, 2021		Soil	S21-My32433				X											
82	TP12-1.5-2.0	May 14, 2021		Soil	S21-My32434				X											
83	TP13-0.0-0.1	May 14, 2021		Soil	S21-My32435				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
84	TP14-0.2-0.3	May 14, 2021		Soil	S21-My32436				X											
85	TP15-0.2-0.3	May 14, 2021		Soil	S21-My32437				X											
86	TP15-0.4-0.5	May 14, 2021		Soil	S21-My32438				X											
87	QC03	May 14, 2021		Soil	S21-My32439								X		X					
88	TP16-0.0-0.1	May 14, 2021		Soil	S21-My32440				X											
89	TP16-0.4-0.5	May 14, 2021		Soil	S21-My32441				X											
90	TP17-0.2-0.3	May 14, 2021		Soil	S21-My32442				X											
91	TP17-0.4-0.5	May 14, 2021		Soil	S21-My32443				X											
92	TP18-0.2-0.3	May 14, 2021		Soil	S21-My32444				X											
93	TP18-0.4-0.5	May 14, 2021		Soil	S21-My32445				X											
94	TP19-0.2-0.3	May 14, 2021		Soil	S21-My32446				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271															X	X				
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X														
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory - NATA Site # 25079																				
External Laboratory																				
95	TP20-0.0-0.1	May 14, 2021		Soil	S21-My32447				X											
96	TP20-0.2-0.3	May 14, 2021		Soil	S21-My32448				X											
97	QC04	May 14, 2021		Soil	S21-My32449				X											
98	TP21-0.2-0.3	May 14, 2021		Soil	S21-My32450				X											
99	TP21-0.4-0.5	May 14, 2021		Soil	S21-My32451				X											
100	TP22-0.2-0.3	May 14, 2021		Soil	S21-My32452				X											
101	TP22-0.4-0.5	May 14, 2021		Soil	S21-My32453				X											
102	TP22-0.9-1.0	May 14, 2021		Soil	S21-My32454				X											
103	TP22-1.0-1.5	May 14, 2021		Soil	S21-My32455				X											
104	QA04	May 14, 2021		Soil	S21-My32456				X											
105	NO LABEL	May 14, 2021		Soil	S21-My32457				X											

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Melbourne Laboratory - NATA Site # 1254 & 14271										X	X				
Sydney Laboratory - NATA Site # 18217		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794	X														
Perth Laboratory - NATA Site # 23736															
Mayfield Laboratory - NATA Site # 25079															
External Laboratory															
Test Counts	2	24	3	57	2	2	4	24	19	42	2	1	24	2	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ug/L: micrograms per litre
ppm: Parts per million
ppb: Parts per billion
%: Percentage
org/100mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	120			70-130	Pass	
TRH C10-C14	%	114			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	113			70-130	Pass	
Toluene	%	87			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	108			70-130	Pass	
o-Xylene	%	104			70-130	Pass	
Xylenes - Total*	%	107			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	106			70-130	Pass	
TRH C6-C10	%	116			70-130	Pass	
TRH >C10-C16	%	112			70-130	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 C10-C14	N21-My26487	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	N21-My26487	NCP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	N21-My26475	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	N21-My26475	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	N21-My26475	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	N21-My26475	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	N21-My26475	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	N21-My26475	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

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

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Chain of Custody pg1 of 6

JBS&G

PROJECT NO.: 60935	LABORATORY BATCH NO.: 795812
PROJECT NAME: OLD NORTHERN RD DD DSI	SAMPLERS: Alison Smith.
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) ...sgray.....@jbsg.com.au; (3) ...alisonsmith.....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH/BTEX	Asbestos	OCPs/PCBs	Fe	Cation ex CEC	pH	% clay.	PAH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
HA01-0-0.1	SOIL	13.5.21		Jar + Bag + Ice		X	X	X	X	X	X	X	X	[X]		X	
↓ 0.2-0.3																	
HA02-0-0.1						X	[X]	X	X							X	
↓ 0.2-0.3																	
HA03-0-0.1						X	X	X	X							X	
↓ 0.2-0.3																	
HA04-0-0.1						X	X	X	X							X	
↓ 0.2-0.3																	
HA05-0-0.1						X	[X]	X	X							X	
↓ 0.2-0.3																	
HA06-0-0.1						X	X	X	X	X	X	X	X			X	
↓ 0.2-0.3																	
HA07-0-0.1						X	X	X	X							X	
↓ 0.2-0.3																	
HA08-0-0.1						X		X	X							X	
↓ 0.2-0.3																	
HA09-0-0.1						X		X	X							X	
↓ 0.2-0.3																	
HA10-0-0.1						X	X							[X]			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Alison Smith DATE: 14.5.21	CONSIGNMENT NOTE NO.	NAME: DATE: 4:30pm	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: M-H	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE: 14/05/21	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

JBS&G

PROJECT NO.:

PROJECT NAME:

DATE NEEDED BY:

LABORATORY BATCH NO.: 79 5812

SAMPLERS:

QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAH	TRH/BTEX	Asbestos	OCPs/PCBs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
HA10_0.2-0.3	SOIL	13.5.21		Jar + Bag + Ice		X	X	X					
HA11_0-0.1		14.5.21				X			X	X		X	
↓ 0.2-0.3													
HA12_0-0.1						X		X	X	X		X	
TP01_0-0.1						X		X	X	X		X	
↓ 0.2-0.3													
↓ 0.4-0.5													
TP02_0-0.1						X		X					
↓ 0.2-0.3													
0.4-0.5													
0.9-1.0													
↓ 1.0-1.5													
QC01						X		X	X	X		X	
FRAG02											X		
FRAG03											X		
FRAG01											X		
TP03_0-0.1						X			X			X	
↓ 0.2-0.3													
TP04_0-0.1	↓	↓		↓		X		X					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 14:30	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF: M-H	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	NAME: DATE: 14,05,21	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

pg3 of 6

JBS&G

PROJECT NO.:	LABORATORY BATCH NO.: 795812
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TPH/BTEX	Asbestos	OCPs/PCBs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP04_0.2-0.3	SOIL	14.5.21		Jar + Bag ice								
↓ 0.4-0.5												
TP05_0-0.1						X	X					
TP06_0-0.1						X						
0.2-0.3												
↓ 0.4-0.5												
QC02												
TP07_0-0.1						X	X	X	X		X	
0.2-0.3												
↓ 0.4-0.5												
TP08_0-0.1						X		X			X	
0.2-0.3												
↓ 0.4-0.5												
TP09_0-0.1						X						
↓ 0.2-0.3												
TP10_0-0.1												
0.2-0.3												
0.4-0.5						X	X					
↓ 0.9-1.0												

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 4:30 pm OF: n.H	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 14/5/21	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

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JBS&G

PROJECT NO.:

PROJECT NAME:

DATE NEEDED BY:

LABORATORY BATCH NO.: 79 5812

SAMPLERS:

QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

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COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	Asbestos	OCPs/PCBs	OCPs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP11-0-0.1	Soil	14.5.21		Jar + Ice + Bag		X							
TP12-0-0.1													
0.2-0.3													
0.4-0.5													
0.9-1.0						X		X				X	
1.0-1.5													
1.5-2.0													
TP13-0-0.1													
0.2-0.3						X	X	X	X			X	
TP14-0-0.1						X		X				X	
0.2-0.3													
TP15-0-0.1						X	X						
0.2-0.3													
0.4-0.5													
QC03						X							
SED01						X				X			
SED02						X	X			X			
SED03						X				X			
WO1	Water	✓		Bottle + Ice		X	X			X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 14/05/21 4:30 pm M.H	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

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JBS&G

PROJECT NO.:	LABORATORY BATCH NO.: 79588
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

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COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	Asbestos	OCP's/PCB's	OCP's	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP16_0-0.1	SOIL	14.5.21		Jar + Bag + Ice									
0.2-0.3						X	X	X	X			X	
0.4-0.5													
TP17_0-0.1						X	X						
0.2-0.3													
0.4-0.5													
TP18_0-0.1						X		X				X	
0.2-0.3													
0.4-0.5													
TP19_0-0.1						X							
0.2-0.3													
TP20_0-0.1													
0.2-0.3													
0.4-0.5						X	X	X	X			X	
0.9-1.0						X				X			
QC04													
QC05						X	X	X	X			X	
TP21_0-0.1						X	X						
0.2-0.3													

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: M+T 4:30 pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 14.05.21	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Chain of Custody

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JBS&G

PROJECT NO.:	LABORATORY BATCH NO.: 745812
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	Asbestos	OCPs/PCBs.	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP21_0.4-0.5	SOIL	14.5.21		Jar + Bag + Ice								
TP22_0-0.1	↓	↓		↓		X		X			X	
0.2-0.3												
0.4-0.5												
0.9-1.0												
1.0-1.5												
TS/TB	Water			Vial + Ice			X					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: M·H 4130	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF: 14/05/21	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Grace Tuckwell

From: Sarah Gray <SGray@jbsg.com.au>
Sent: Tuesday, 18 May 2021 4:45 PM
To: John Nguyen
Cc: #AU04_Enviro_Sample_NSW
Subject: SRA - OLD NORTHERN RD DD DSI (60935)

Follow Up Flag: Follow up
Flag Status: Flagged

Hi John,

Can I please get the following amendments:

- QC03 analysed for heavy metals
- Cancel QC01 and QC05 Asbestos analysis

Thanks,

Sarah Gray |Senior Project Manager| JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane | Canberra | Darwin | Wollongong | Bunbury
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0405 625 748| W: www.jbsg.com.au
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From: EnviroSampleNSW@eurofins.com <EnviroSampleNSW@eurofins.com>
Sent: Tuesday, 18 May 2021 4:07 PM
To: Sarah Gray <SGray@jbsg.com.au>
Cc: Alison Smith <alisonsmith@jbsg.com.au>
Subject:

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.

Dear Valued Client,

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins | Environment Testing Analytical Services Manager as soon as possible to make certain that they get changed.

Regards

Truong Nguyen

Sample Receipt

Eurofins | Environmental Testing
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 02 9900 8421
Email: EnviroSampleNSW@eurofins.com
Website:environment.eurofins.com.au

EnviroNote 1108 - Emissions from Stationary Sources
EnviroNote 1103 - NATA Accreditation for Dioxins
EnviroNote 1108 - Emissions from Stationary Sources
EnviroNote 1103 - NATA Accreditation for Dioxins

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Sarah Gray
Project name:	DLD NORTHERN RD DD DS
Project ID:	60935
Turnaround time:	5 Day
Date/Time received	May 14, 2021 4:30 PM
Eurofins reference	795812

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 2.9 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Sarah Gray - sgray@jbsg.com.au.

Global Leader - Results you can trust

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 269307

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Gray
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**60935**
Number of Samples	4 soil
Date samples received	18/05/2021
Date completed instructions received	18/05/2021

Analysis Details

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

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

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

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	25/05/2021
Date of Issue	25/05/2021

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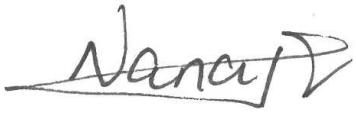
Asbestos Approved By
Analysed by Asbestos Approved Identifier:
Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Senior Chemist

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		269307-1	269307-4
Your Reference	UNITS	QA01	QA05
Date Sampled		14/05/2021	14/05/2021
Type of sample		soil	soil
Date extracted	-	19/05/2021	19/05/2021
Date analysed	-	21/05/2021	21/05/2021
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<3	<3
Surrogate aaa-Trifluorotoluene	%	86	92

svTRH (C10-C40) in Soil			
Our Reference		269307-1	269307-4
Your Reference	UNITS	QA01	QA05
Date Sampled		14/05/2021	14/05/2021
Type of sample		soil	soil
Date extracted	-	19/05/2021	19/05/2021
Date analysed	-	21/05/2021	21/05/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	83	93

Organochlorine Pesticides in soil			
Our Reference		269307-1	269307-4
Your Reference	UNITS	QA01	QA05
Date Sampled		14/05/2021	14/05/2021
Type of sample		soil	soil
Date extracted	-	19/05/2021	19/05/2021
Date analysed	-	24/05/2021	24/05/2021
alpha-BHC	mg/kg	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	97	93

PCBs in Soil			
Our Reference	UNITS	269307-1	269307-4
Your Reference		QA01	QA05
Date Sampled		14/05/2021	14/05/2021
Type of sample		soil	soil
Date extracted	-	19/05/2021	19/05/2021
Date analysed	-	24/05/2021	24/05/2021
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	97	93

Acid Extractable metals in soil				
Our Reference		269307-1	269307-3	269307-4
Your Reference	UNITS	QA01	QA03	QA05
Date Sampled		14/05/2021	14/05/2021	14/05/2021
Type of sample		soil	soil	soil
Date prepared	-	19/05/2021	24/05/2021	19/05/2021
Date analysed	-	24/05/2021	24/05/2021	24/05/2021
Arsenic	mg/kg	7	6	<4
Cadmium	mg/kg	0.4	<0.4	<0.4
Chromium	mg/kg	16	16	7
Copper	mg/kg	240	160	32
Lead	mg/kg	19	17	9
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	9	6	2
Zinc	mg/kg	83	43	32

Moisture				
Our Reference		269307-1	269307-3	269307-4
Your Reference	UNITS	QA01	QA03	QA05
Date Sampled		14/05/2021	14/05/2021	14/05/2021
Type of sample		soil	soil	soil
Date prepared	-	19/05/2021	19/05/2021	19/05/2021
Date analysed	-	20/05/2021	20/05/2021	20/05/2021
Moisture	%	25	24	<0.1

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date extracted	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	102	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	102	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	101	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	103	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			21/05/2021	[NT]	[NT]	[NT]	[NT]	21/05/2021	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	127	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	106	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	127	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	106	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	127	[NT]
Surrogate o-Terphenyl	%		Org-020	80	[NT]	[NT]	[NT]	[NT]	109	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			24/05/2021	[NT]	[NT]	[NT]	[NT]	24/05/2021	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	94	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			24/05/2021	[NT]	[NT]	[NT]	[NT]	24/05/2021	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	71	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	94	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			19/05/2021	[NT]	[NT]	[NT]	[NT]	19/05/2021	[NT]
Date analysed	-			24/05/2021	[NT]	[NT]	[NT]	[NT]	24/05/2021	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	103	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]

Result Definitions

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

Quality Control Definitions

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

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

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

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Report Comments

Metals_s:
5110 24MAY2021 3:46, CS 24MAY2021 2:15 GP
- #3 : 5110 24MAY2021 6:27, CsonCW 24MAY2021 1:10 GP

Chain of Custody

JBS&G

PROJECT NO.: 60935	LABORATORY BATCH NO.:
PROJECT NAME: Duval DD DSI	SAMPLERS: Alison Smith
DATE NEEDED BY: STAT	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) sgray@jbsg.com.au; (3) alison.smith@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID		MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	TRH/BTEX	Asbestos	OCP's/PCB's	OCP's	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QA01	1	SOIL	13.5.21		Jar + Bag + Ice		X	X	X	X			X	
02	2	↓	↓		↓									
03	3													
04	NR						X			X				
05.	4	↓	↓		↓		X	X	X	X			X	

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 209307

Date Received: 18/5/21

Time Received: 1240

Received by: CM

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Alison Smith DATE: 14.5.21	CONSIGNMENT NOTE NO.	NAME: VC	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 14/5/21 4:30PM	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF: ENVIROFINS	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	NAME: C Mitchell DATE: 18/5/21 OF: ESSMA 1240	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

2.9°C 795561

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Gray

Sample Login Details

Your reference	60935
Envirolab Reference	269307
Date Sample Received	18/05/2021
Date Instructions Received	18/05/2021
Date Results Expected to be Reported	25/05/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	4 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	9
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Missing QA04

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Organochlorine Pesticides in soil	PCBsin Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	On Hold
QA01	✓	✓	✓	✓	✓	✓	
QA02							✓
QA04							✓
QA05	✓	✓	✓	✓	✓	✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Sarah Gray**

Report **797801-L**
Project name ADDITIONAL OLD NORTHERN RD DD DS
Project ID 60935
Received Date May 25, 2021

Client Sample ID			**HA10 0-0.1**
Sample Matrix			**US Leachate**
Eurofins Sample No.			**S21-My48448**
Date Sampled			**May 14, 2021**
Test/Reference	LOR	Unit	
Heavy Metals			
Nickel	0.01	mg/L	0.23
USA Leaching Procedure			
Leachate Fluid[C01]		comment	1.0
pH (initial)	0.1	pH Units	6.8
pH (off)	0.1	pH Units	5.0
pH (USA HCl addition)	0.1	pH Units	1.7

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Sydney	May 25, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
USA Leaching Procedure	Sydney	May 25, 2021	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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

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

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

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

New Zealand

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL OLD NORTHERN RD DD DS
Project ID: 60935

Order No.:
Report #: 797801
Phone: 02 8245 0300
Fax:

Received: May 25, 2021 3:38 PM
Due: May 26, 2021
Priority: 1 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						CANCELLED	Nickel	USA Leaching Procedure
Melbourne Laboratory - NATA Site # 1254 & 14271								
Sydney Laboratory - NATA Site # 18217						X	X	X
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	HA10 0-0.1	May 14, 2021		US Leachate	S21-My48448		X	X
2	TP20 0.4-0.5	May 14, 2021		US Leachate	S21-My48449	X		
Test Counts						1	1	1

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Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Nickel			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Nickel			%	85			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Nickel	S21-My47869	NCP	%	84			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	S21-My47868	NCP	mg/L	0.02	0.02	13	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Asim Khan	Analytical Services Manager
John Nguyen	Senior Analyst-Metal (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Grace Tuckwell

From: #AU04_Enviro_Sample_NSW
Subject: FW: DRAFT: Eurofins Test Results - Report 795812 : Site DLD NORTHERN RD DD DS (60935)

From: Alison Smith <alisonsmith@jbsg.com.au>
Sent: Tuesday, May 25, 2021 3:38 PM
To: John Nguyen <JohnNguyen@eurofins.com>; Sarah Gray <SGray@jbsg.com.au>
Subject: RE: DRAFT: Eurofins Test Results - Report 795812 : Site DLD NORTHERN RD DD DS (60935)

EXTERNAL EMAIL*

Hi John,

Could we please have TCLP analysis completed for TP20 0.4-0.5 (Lead) and HA10 0-0.1 (Nickel) on 24 Hr TAT.

Many thanks
Ali

Alison Smith | Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane | Canberra | Darwin | Wollongong | Bunbury
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0488 977 474 | E: alisonsmith@jbsg.com.au | W: www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Assessment and Approvals | Auditing and Compliance | Hygiene and Hazardous Materials | Due Diligence and Liability | Fire Management Planning | Stakeholder and Risk Management

JBS&G acknowledges the Traditional Owners and custodians on the land we walk, work and live. We pay respect to their cultures, Elders past and present, and in the spirit of reconciliation, we commit to working together for our shared future.

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From: JohnNguyen@eurofins.com <JohnNguyen@eurofins.com>
Sent: Monday, 24 May 2021 12:51 PM
To: Sarah Gray <SGray@jbsg.com.au>
Cc: Alison Smith <alisonsmith@jbsg.com.au>
Subject: DRAFT: Eurofins Test Results - Report 795812 : Site DLD NORTHERN RD DD DS (60935)

[EXTERNAL EMAIL] Stop and think before opening attachments, clicking or responding.
Please find attached draft results for your project in the subject header.

Kind regards,

John Nguyen
Analytical Services Manager
Eurofins|Environment Testing
Mobile: +61 424 521 210
Email: johnnguyen@eurofins.com

EnviroNote 1108 - Emissions from Stationary Sources
EnviroNote 1103 - NATA Accreditation for Dioxins

* WARNING - EXTERNAL: This email originated from outside of Eurofins. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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1/21 Smallwood Place
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46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 9251 9600
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4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

New Zealand

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

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

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Sarah Gray
Project name:	ADDITIONAL OLD NORTHERN RD DD DS
Project ID:	60935
Turnaround time:	1 Day
Date/Time received	May 25, 2021 3:38 PM
Eurofins reference	797801

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 2.9 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Ursula Long on phone : or by email: UrsulaLong@eurofins.com

Results will be delivered electronically via email to Sarah Gray - sgray@jbsg.com.au.

Global Leader - Results you can trust

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Sarah Gray
Report	917317-AID-V2
Project Name	OLD NORTHERN RD
Project ID	60935
Received Date	Aug 23, 2022
Date Reported	Aug 30, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name OLD NORTHERN RD
Project ID 60935
Date Sampled Aug 23, 2022
Report 917317-AID-V2

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
614-TP01_0.2-0.3	22-Au0056105	Aug 23, 2022	Approximate Sample 518g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP03_0-0.1	22-Au0056107	Aug 23, 2022	Approximate Sample 469g Sample consisted of: Brown fine-grained clayey soil, brick and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP04_0-0.1	22-Au0056110	Aug 23, 2022	Approximate Sample 528g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP05_0.4-0.5	22-Au0056112	Aug 23, 2022	Approximate Sample 573g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP07_0-0.1	22-Au0056114	Aug 23, 2022	Approximate Sample 593g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP09_0-0.1	22-Au0056116	Aug 23, 2022	Approximate Sample 431g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP12_0-0.1	22-Au0056119	Aug 23, 2022	Approximate Sample 657g Sample consisted of: Brown fine-grained clayey soil, shale and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
614-TP14_0-0.1	22-Au0056121	Aug 23, 2022	Approximate Sample 694g Sample consisted of: Brown fine-grained clayey soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
614-TP15_0.9-1.0	22-Au0056125	Aug 23, 2022	Approximate Sample 472g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
FRAG01	22-Au0056128	Aug 23, 2022	Approximate Sample 78g / 140x60x8mm Sample consisted of: Grey fibre plaster cement material	No asbestos detected. Organic fibre detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Aug 24, 2022	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Aug 24, 2022	Indefinite

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091

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

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

Order No.:
Report #: 917317
Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
External Laboratory																
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
1	614-TP01_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056105	X					X	X		X		
2	614-TP02_0-0.1	Aug 23, 2022		Soil	S22-Au0056106					X		X				
3	614-TP03_0-0.1	Aug 23, 2022		Soil	S22-Au0056107	X			X		X	X	X	X		
4	614-TP03_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056108					X		X				
5	QC20220823	Aug 23, 2022		Soil	S22-Au0056109						X	X		X		
6	614-TP04_0-0.1	Aug 23, 2022		Soil	S22-Au0056110	X										
7	614-TP04_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056111						X	X		X		
8	614-TP05_0.4-	Aug 23, 2022		Soil	S22-Au0056112	X					X	X		X		

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091

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

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

Order No.:
Report #: 917317
Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
9	614-TP06_0-0.1	Aug 23, 2022		Soil	S22-Au0056113					X		X				
10	614-TP07_0-0.1	Aug 23, 2022		Soil	S22-Au0056114	X					X	X		X		
11	614-TP08_0-0.1	Aug 23, 2022		Soil	S22-Au0056115					X		X				
12	614-TP09_0-0.1	Aug 23, 2022		Soil	S22-Au0056116	X										
13	614-TP09_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056117						X	X		X		
14	614-TP11_0-0.1	Aug 23, 2022		Soil	S22-Au0056118					X		X				
15	614-TP12_0-0.1	Aug 23, 2022		Soil	S22-Au0056119	X					X	X		X		
16	614-TP13_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056120					X		X				

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
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Sydney
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Girraween
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ACT 2911
Tel: +61 2 6113 8091

Brisbane
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Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

Order No.:
Report #: 917317
Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
17	614-TP14_0-0.1	Aug 23, 2022		Soil	S22-Au0056121	X			X		X	X	X	X		
18	614-TP14_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056122					X		X				
19	614-TP14_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056123					X		X				
20	614-TP15_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056124					X		X				
21	614-TP15_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056125	X					X	X		X		
22	TRIP S	Aug 23, 2022		Water	S22-Au0056126											X
23	TRIP B	Aug 23, 2022		Water	S22-Au0056127										X	
24	FRAG01	Aug 23, 2022		Building Materials	S22-Au0056128		X									
25	614-TP01_0-0.1	Aug 23, 2022		Soil	S22-Au0056129			X								
26	614-TP01_0.4-	Aug 23, 2022		Soil	S22-Au0056130			X								

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Penrose,
Auckland 1061
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
27	614-TP02_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056131			X								
28	614-TP02_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056132			X								
29	614-TP03_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056133			X								
30	614-TP03_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056134			X								
31	614-TP04_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056135			X								
32	614-TP04_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056136			X								
33	614-TP05_0-0.1	Aug 23, 2022		Soil	S22-Au0056137			X								
34	614-TP05_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056138			X								

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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
35	614-TP05_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056139			X								
36	614-TP06_0.4-0.6	Aug 24, 2022		Soil	S22-Au0056140			X								
37	614-TP06_0.9-1.1	Aug 23, 2022		Soil	S22-Au0056141			X								
38	614-TP07_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056142			X								
39	614-TP08_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056143			X								
40	614-TP09_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056144			X								
41	614-TP10_0-0.1	Aug 23, 2022		Soil	S22-Au0056145			X								
42	614-TP10_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056146			X								
43	614-TP11_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056147			X								

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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
44	614-TP11_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056148			X								
45	614-TP12_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056149			X								
46	614-TP13_0-0.1	Aug 23, 2022		Soil	S22-Au0056150			X								
47	614-TP14_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056151			X								
48	614-TP14_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056152			X								
49	QC20220823_1	Aug 23, 2022		Soil	S22-Au0056153			X								
50	614-TP15_0-0.1	Aug 23, 2022		Soil	S22-Au0056154			X								
51	614-TP15_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056155			X								
52	614-TP15_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056156			X								

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

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ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
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Melbourne Laboratory - NATA # 1261 Site # 1254							X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X	X	X	X
Test Counts	9	1	28	2	9	10	19	2	10	1	1

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
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.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

V2- new version to add 614 add the start of all TP samples as per client request.

22-Au0056107, 22-Au0056116 and 22-Au0056125: Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

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

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

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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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
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Attention: **Sarah Gray**

Report **917317-S-V2**
Project name OLD NORTHERN RD
Project ID 60935
Received Date Aug 23, 2022

Client Sample ID			614-TP01_0.2-0.3	614-TP02_0-0.1	614-TP03_0-0.1	614-TP03_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056105	S22-Au0056106	S22-Au0056107	S22-Au0056108
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	86	-	91	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			614-TP01_0.2-0.3	614-TP02_0-0.1	614-TP03_0-0.1	614-TP03_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056105	S22-Au0056106	S22-Au0056107	S22-Au0056108
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	111	-	117	-
p-Terphenyl-d14 (surr.)	1	%	127	-	141	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	0.5	mg/kg	< 0.5	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	117	-	123	-
Tetrachloro-m-xylene (surr.)	1	%	108	-	108	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	117	-	123	-
Tetrachloro-m-xylene (surr.)	1	%	108	-	108	-

Client Sample ID			614-TP01_0.2-0.3	614-TP02_0-0.1	614-TP03_0-0.1	614-TP03_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056105	S22-Au0056106	S22-Au0056107	S22-Au0056108
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.5	9.2	7.1	6.8
Cadmium	0.4	mg/kg	0.8	< 0.4	< 0.4	1.6
Chromium	5	mg/kg	15	18	21	22
Copper	5	mg/kg	15	14	41	28
Lead	5	mg/kg	24	43	120	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1
Nickel	5	mg/kg	6.2	6.2	8.1	9.3
Zinc	5	mg/kg	26	55	160	23
% Moisture	1	%	24	22	23	23
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	-	61	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	-	6.6	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	15	-

Client Sample ID			QC20220823	614-TP04_0.9-1.0	614-TP05_0.4-0.5	614-TP06_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056109	S22-Au0056111	S22-Au0056112	S22-Au0056113
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	-
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	%	95	84	93	-

Client Sample ID			QC20220823	614-TP04_0.9-1.0	614-TP05_0.4-0.5	614-TP06_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056109	S22-Au0056111	S22-Au0056112	S22-Au0056113
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	105	105	112	-
p-Terphenyl-d14 (surr.)	1	%	129	142	119	-
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-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
d-HCH	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-HCH (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	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
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	-

Client Sample ID			QC20220823	614-TP04_0.9-1.0	614-TP05_0.4-0.5	614-TP06_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056109	S22-Au0056111	S22-Au0056112	S22-Au0056113
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	104	125	102	-
Tetrachloro-m-xylene (surr.)	1	%	104	108	104	-
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	%	104	125	102	-
Tetrachloro-m-xylene (surr.)	1	%	104	108	104	-
Heavy Metals						
Arsenic	2	mg/kg	8.5	13	6.5	6.4
Cadmium	0.4	mg/kg	0.7	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	21	11	11
Copper	5	mg/kg	30	27	19	12
Lead	5	mg/kg	62	22	20	15
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.1	< 5	< 5	< 5
Zinc	5	mg/kg	100	14	16	33
% Moisture	1	%	19	20	17	11

Client Sample ID			614-TP07_0-0.1	614-TP08_0-0.1	614-TP09_0.4-0.5	614-TP11_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056114	S22-Au0056115	S22-Au0056117	S22-Au0056118
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-

Client Sample ID			614-TP07_0-0.1	614-TP08_0-0.1	614-TP09_0.4-0.5	614-TP11_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056114	S22-Au0056115	S22-Au0056117	S22-Au0056118
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	87	-	93	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	110	-	117	-
p-Terphenyl-d14 (surr.)	1	%	113	-	149	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	1.2	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			614-TP07_0-0.1	614-TP08_0-0.1	614-TP09_0.4-0.5	614-TP11_0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056114	S22-Au0056115	S22-Au0056117	S22-Au0056118
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	0.5	mg/kg	< 0.5	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	1.2	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	1.2	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	109	-	123	-
Tetrachloro-m-xylene (surr.)	1	%	105	-	118	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	109	-	123	-
Tetrachloro-m-xylene (surr.)	1	%	105	-	118	-
Heavy Metals						
Arsenic	2	mg/kg	15	8.4	11	10
Cadmium	0.4	mg/kg	< 0.4	0.5	< 0.4	< 0.4
Chromium	5	mg/kg	15	23	17	13
Copper	5	mg/kg	23	44	23	5.5
Lead	5	mg/kg	19	51	22	31
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	5.5	7.6	5.9	< 5
Zinc	5	mg/kg	34	250	33	7.9
% Moisture	1	%	14	39	26	20

Client Sample ID			614-TP12_0-0.1	614-TP13_0.2-0.3	614-TP14_0-0.1	614-TP14_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056119	S22-Au0056120	S22-Au0056121	S22-Au0056122
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	< 50	-
TRH C29-C36	50	mg/kg	< 50	-	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	-	< 20	-

Client Sample ID			614-TP12_0-0.1	614-TP13_0.2-0.3	614-TP14_0-0.1	614-TP14_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056119	S22-Au0056120	S22-Au0056121	S22-Au0056122
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	85	-	79	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	108	-	111	-
p-Terphenyl-d14 (surr.)	1	%	148	-	138	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			614-TP12_0-0.1	614-TP13_0.2-0.3	614-TP14_0-0.1	614-TP14_0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056119	S22-Au0056120	S22-Au0056121	S22-Au0056122
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	0.5	mg/kg	< 0.5	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	123	-	132	-
Tetrachloro-m-xylene (surr.)	1	%	112	-	105	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	123	-	132	-
Tetrachloro-m-xylene (surr.)	1	%	112	-	105	-
Heavy Metals						
Arsenic	2	mg/kg	3.6	< 2	8.7	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	6.8	5.9	20	30
Copper	5	mg/kg	< 5	< 5	9.5	27
Lead	5	mg/kg	21	21	24	66
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	8.3	14
Zinc	5	mg/kg	< 5	< 5	38	100
% Moisture	1	%	16	16	17	21
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	-	32	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	-	6.2	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	-	10.0	-

Client Sample ID			614-TP14_1.4-1.5	614-TP15_0.2-0.3	614-TP15_0.9-1.0
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056123	S22-Au0056124	S22-Au0056125
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	< 50
TRH C29-C36	50	mg/kg	-	-	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	< 50
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100
BTEX					
Benzene	0.1	mg/kg	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	95
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2
Acenaphthene	0.5	mg/kg	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	< 0.5
Total PAH*	0.5	mg/kg	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	108
p-Terphenyl-d14 (surr.)	1	%	-	-	119

Client Sample ID			614-TP14_1.4-1.5	614-TP15_0.2-0.3	614-TP15_0.9-1.0
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S22-Au0056123	S22-Au0056124	S22-Au0056125
Date Sampled			Aug 23, 2022	Aug 23, 2022	Aug 23, 2022
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	115
Tetrachloro-m-xylene (surr.)	1	%	-	-	111
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	-	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	< 0.1
Total PCB*	0.1	mg/kg	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	115
Tetrachloro-m-xylene (surr.)	1	%	-	-	111
Heavy Metals					
Arsenic	2	mg/kg	9.8	12	6.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	40	17
Copper	5	mg/kg	5.3	17	17
Lead	5	mg/kg	24	32	23
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	12	10.0
Zinc	5	mg/kg	7.4	31	25
% Moisture	1	%	20	25	22

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Aug 25, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Aug 25, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Aug 25, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Aug 24, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Melbourne	Aug 26, 2022	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Aug 26, 2022	28 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	Aug 25, 2022	7 Days
- Method: LTM-GEN-7090 pH by ISE			

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091

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

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

Order No.:
Report #: 917317
Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
External Laboratory																
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
1	614-TP01_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056105	X					X	X		X		
2	614-TP02_0-0.1	Aug 23, 2022		Soil	S22-Au0056106					X		X				
3	614-TP03_0-0.1	Aug 23, 2022		Soil	S22-Au0056107	X			X		X	X	X	X		
4	614-TP03_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056108					X		X				
5	QC20220823	Aug 23, 2022		Soil	S22-Au0056109						X	X		X		
6	614-TP04_0-0.1	Aug 23, 2022		Soil	S22-Au0056110	X										
7	614-TP04_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056111						X	X		X		
8	614-TP05_0.4-	Aug 23, 2022		Soil	S22-Au0056112	X					X	X		X		

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
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VIC 3216
Tel: +61 3 8564 5000
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Mitchell
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Tel: +61 2 6113 8091

Brisbane
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Murarrie
QLD 4172
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NATA# 1261 Site# 20794

Newcastle
4/52 Industrial Drive
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PO Box 60 Wickham 2293
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Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

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NZBN: 9429046024954

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

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

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

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Fax:

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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
9	614-TP06_0-0.1	Aug 23, 2022		Soil	S22-Au0056113					X		X				
10	614-TP07_0-0.1	Aug 23, 2022		Soil	S22-Au0056114	X					X	X		X		
11	614-TP08_0-0.1	Aug 23, 2022		Soil	S22-Au0056115					X		X				
12	614-TP09_0-0.1	Aug 23, 2022		Soil	S22-Au0056116	X										
13	614-TP09_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056117						X	X		X		
14	614-TP11_0-0.1	Aug 23, 2022		Soil	S22-Au0056118					X		X				
15	614-TP12_0-0.1	Aug 23, 2022		Soil	S22-Au0056119	X					X	X		X		
16	614-TP13_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056120					X		X				

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NZBN: 9429046024954

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

Christchurch
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
17	614-TP14_0-0.1	Aug 23, 2022		Soil	S22-Au0056121	X			X		X	X	X	X		
18	614-TP14_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056122					X		X				
19	614-TP14_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056123					X		X				
20	614-TP15_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056124					X		X				
21	614-TP15_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056125	X					X	X		X		
22	TRIP S	Aug 23, 2022		Water	S22-Au0056126											X
23	TRIP B	Aug 23, 2022		Water	S22-Au0056127										X	
24	FRAG01	Aug 23, 2022		Building Materials	S22-Au0056128		X									
25	614-TP01_0-0.1	Aug 23, 2022		Soil	S22-Au0056129			X								
26	614-TP01_0.4-	Aug 23, 2022		Soil	S22-Au0056130			X								

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web: www.eurofins.com.au
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
27	614-TP02_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056131			X								
28	614-TP02_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056132			X								
29	614-TP03_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056133			X								
30	614-TP03_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056134			X								
31	614-TP04_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056135			X								
32	614-TP04_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056136			X								
33	614-TP05_0-0.1	Aug 23, 2022		Soil	S22-Au0056137			X								
34	614-TP05_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056138			X								

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web: www.eurofins.com.au
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ABN: 50 005 085 521

Melbourne
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
35	614-TP05_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056139			X								
36	614-TP06_0.4-0.6	Aug 24, 2022		Soil	S22-Au0056140			X								
37	614-TP06_0.9-1.1	Aug 23, 2022		Soil	S22-Au0056141			X								
38	614-TP07_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056142			X								
39	614-TP08_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056143			X								
40	614-TP09_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056144			X								
41	614-TP10_0-0.1	Aug 23, 2022		Soil	S22-Au0056145			X								
42	614-TP10_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056146			X								
43	614-TP11_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056147			X								

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

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ABN: 50 005 085 521

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

Geelong
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Grovedale
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
44	614-TP11_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056148			X								
45	614-TP12_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056149			X								
46	614-TP13_0-0.1	Aug 23, 2022		Soil	S22-Au0056150			X								
47	614-TP14_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056151			X								
48	614-TP14_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056152			X								
49	QC20220823_1	Aug 23, 2022		Soil	S22-Au0056153			X								
50	614-TP15_0-0.1	Aug 23, 2022		Soil	S22-Au0056154			X								
51	614-TP15_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056155			X								
52	614-TP15_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056156			X								

eurofins

web: www.eurofins.com.au
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Melbourne Laboratory - NATA # 1261 Site # 1254							X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X	X	X	X
Test Counts	9	1	28	2	9	10	19	2	10	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	89			70-130	Pass	
TRH C10-C14	%	75			70-130	Pass	
Naphthalene	%	126			70-130	Pass	
TRH C6-C10	%	88			70-130	Pass	
TRH >C10-C16	%	71			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	102			70-130	Pass	
Toluene	%	109			70-130	Pass	
Ethylbenzene	%	103			70-130	Pass	
m&p-Xylenes	%	98			70-130	Pass	
o-Xylene	%	103			70-130	Pass	
Xylenes - Total*	%	99			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	93			70-130	Pass	
Acenaphthylene	%	89			70-130	Pass	
Anthracene	%	75			70-130	Pass	
Benz(a)anthracene	%	89			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	
Benzo(b&j)fluoranthene	%	112			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(g.h.i)perylene	%	103			70-130	Pass	
Benzo(k)fluoranthene	%	111			70-130	Pass	
Chrysene	%	90			70-130	Pass	
Dibenz(a.h)anthracene	%	87			70-130	Pass	
Fluoranthene	%	88			70-130	Pass	
Fluorene	%	96			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Phenanthrene	%	99			70-130	Pass	
Pyrene	%	88			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	75			70-130	Pass	
4.4'-DDD	%	83			70-130	Pass	
4.4'-DDE	%	77			70-130	Pass	
4.4'-DDT	%	86			70-130	Pass	
a-HCH	%	76			70-130	Pass	
Aldrin	%	81			70-130	Pass	
b-HCH	%	76			70-130	Pass	
d-HCH	%	81			70-130	Pass	
Dieldrin	%	81			70-130	Pass	
Endosulfan I	%	77			70-130	Pass	
Endosulfan II	%	83			70-130	Pass	
Endosulfan sulphate	%	80			70-130	Pass	
Endrin	%	77			70-130	Pass	
Endrin aldehyde	%	70			70-130	Pass	
Endrin ketone	%	75			70-130	Pass	
g-HCH (Lindane)	%	75			70-130	Pass	
Heptachlor	%	80			70-130	Pass	
Heptachlor epoxide	%	80			70-130	Pass	
Hexachlorobenzene	%	76			70-130	Pass	
Methoxychlor	%	105			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	82			70-130	Pass	
Aroclor-1260	%	70			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	92			80-120	Pass	
Cadmium	%	90			80-120	Pass	
Chromium	%	84			80-120	Pass	
Copper	%	82			80-120	Pass	
Lead	%	105			80-120	Pass	
Mercury	%	92			80-120	Pass	
Nickel	%	82			80-120	Pass	
Zinc	%	84			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Au0051983	NCP	%	78			70-130	Pass	
TRH C10-C14	N22-Au0052152	NCP	%	94			70-130	Pass	
Naphthalene	S22-Au0051983	NCP	%	98			70-130	Pass	
TRH C6-C10	S22-Au0051983	NCP	%	78			70-130	Pass	
TRH >C10-C16	N22-Au0052152	NCP	%	90			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Au0051983	NCP	%	90			70-130	Pass	
Toluene	S22-Au0051983	NCP	%	93			70-130	Pass	
Ethylbenzene	S22-Au0051983	NCP	%	91			70-130	Pass	
m&p-Xylenes	S22-Au0051983	NCP	%	85			70-130	Pass	
o-Xylene	S22-Au0051983	NCP	%	89			70-130	Pass	
Xylenes - Total*	S22-Au0051983	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Chrysene	R22-Au0043041	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Endrin aldehyde	R22-Au0043041	NCP	%	77			70-130	Pass	
Endrin ketone	R22-Au0043041	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Au0056107	CP	%	81			70-130	Pass	
Acenaphthylene	S22-Au0056107	CP	%	90			70-130	Pass	
Anthracene	S22-Au0056107	CP	%	71			70-130	Pass	
Benz(a)anthracene	S22-Au0056107	CP	%	103			70-130	Pass	
Benzo(a)pyrene	S22-Au0056107	CP	%	86			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Au0056107	CP	%	95			70-130	Pass	
Benzo(g.h.i)perylene	S22-Au0056107	CP	%	94			70-130	Pass	
Benzo(k)fluoranthene	S22-Au0056107	CP	%	77			70-130	Pass	
Dibenz(a.h)anthracene	S22-Au0056107	CP	%	86			70-130	Pass	
Fluoranthene	S22-Au0056107	CP	%	94			70-130	Pass	
Fluorene	S22-Au0056107	CP	%	96			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Au0056107	CP	%	79			70-130	Pass	
Naphthalene	S22-Au0056107	CP	%	90			70-130	Pass	
Phenanthrene	S22-Au0056107	CP	%	109			70-130	Pass	
Pyrene	S22-Au0056107	CP	%	99			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Au0056107	CP	%	81			70-130	Pass	
4.4'-DDD	S22-Au0056107	CP	%	80			70-130	Pass	
4.4'-DDE	S22-Au0056107	CP	%	78			70-130	Pass	
4.4'-DDT	S22-Au0056107	CP	%	75			70-130	Pass	
a-HCH	S22-Au0056107	CP	%	80			70-130	Pass	
Aldrin	S22-Au0056107	CP	%	71			70-130	Pass	
b-HCH	S22-Au0056107	CP	%	81			70-130	Pass	
d-HCH	S22-Au0056107	CP	%	78			70-130	Pass	
Dieldrin	S22-Au0056107	CP	%	81			70-130	Pass	
Endosulfan I	S22-Au0056107	CP	%	79			70-130	Pass	
Endosulfan II	S22-Au0056107	CP	%	73			70-130	Pass	
Endrin	S22-Au0056107	CP	%	81			70-130	Pass	
g-HCH (Lindane)	S22-Au0056107	CP	%	79			70-130	Pass	
Heptachlor	S22-Au0056107	CP	%	90			70-130	Pass	
Heptachlor epoxide	S22-Au0056107	CP	%	84			70-130	Pass	
Hexachlorobenzene	S22-Au0056107	CP	%	78			70-130	Pass	
Methoxychlor	S22-Au0056107	CP	%	119			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-Au0056107	CP	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Au0056123	CP	%	96			75-125	Pass	
Cadmium	S22-Au0056123	CP	%	98			75-125	Pass	
Chromium	S22-Au0056123	CP	%	80			75-125	Pass	
Copper	S22-Au0056123	CP	%	82			75-125	Pass	
Lead	S22-Au0056123	CP	%	108			75-125	Pass	
Mercury	S22-Au0056123	CP	%	99			75-125	Pass	
Nickel	S22-Au0056123	CP	%	82			75-125	Pass	
Zinc	S22-Au0056123	CP	%	84			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S22-Au0056646	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Au0056646	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Au0056646	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S22-Au0056646	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Au0056646	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Au0056646	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
g-HCH (Lindane)	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Au0056105	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Au0056105	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Au0056105	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	B22-Au0056477	NCP	uS/cm	13	12	13	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	S22-Au0053948	NCP	meq/100g	8.9	9.1	1.8	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Au0056111	CP	mg/kg	13	13	3.3	30%	Pass	
Cadmium	S22-Au0056111	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Au0056111	CP	mg/kg	21	20	4.7	30%	Pass	
Copper	S22-Au0056111	CP	mg/kg	27	28	1.1	30%	Pass	
Lead	S22-Au0056111	CP	mg/kg	22	22	1.2	30%	Pass	
Mercury	S22-Au0056111	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Au0056111	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Au0056111	CP	mg/kg	14	13	5.4	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Au0056114	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S22-Au0056114	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Au0056114	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Au0056114	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Au0056114	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Au0056114	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Au0056114	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Au0056114	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Au0056114	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Au0056114	CP	%	14	18	21	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
pH (1:5 Aqueous extract at 25 °C as rec.)	S22-Au0056121	CP	pH Units	6.2	6.2	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Au0056122	CP	mg/kg	11	12	2.9	30%	Pass	
Chromium	S22-Au0056122	CP	mg/kg	30	38	21	30%	Pass	
Copper	S22-Au0056122	CP	mg/kg	27	26	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Au0056125	CP	%	22	22	<1	30%	Pass	

Comments

V2- new version to add 614 add the start of all TP samples as per client request.

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

Authorised by:

Andrew Black	Analytical Services Manager
Dilani Samarakoon	Senior Analyst-Inorganic
Emily Rosenberg	Senior Analyst-Metal
Gabriele Cordero	Senior Analyst-Metal
Mary Makarios	Senior Analyst-Inorganic
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Sayeed Abu	Senior Analyst-Asbestos

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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JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Sarah Gray**

Report **917317-W-V2**
Project name OLD NORTHERN RD
Project ID 60935
Received Date Aug 23, 2022

Client Sample ID			**TRIP S**	**TRIP B**
Sample Matrix			**Water**	**Water**
Eurofins Sample No.			**S22-Au0056126**	**S22-Au0056127**
Date Sampled			**Aug 23, 2022**	**Aug 23, 2022**
Test/Reference	LOR	Unit		
TRH C6-C10	1	%	78	-
Total Recoverable Hydrocarbons				
Naphthalene	1	%	120	-
TRH C6-C9	1	%	86	-
BTEX				
Benzene	1	%	100	-
Ethylbenzene	1	%	98	-
m&p-Xylenes	1	%	100	-
o-Xylene	1	%	98	-
Toluene	1	%	97	-
Xylenes - Total	1	%	100	-
4-Bromofluorobenzene (surr.)	1	%	83	-
Total Recoverable Hydrocarbons				
TRH C6-C9	0.02	mg/L	-	< 0.02
Naphthalene[N02]	0.01	mg/L	-	< 0.01
TRH C6-C10	0.02	mg/L	-	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	-	< 0.02
BTEX				
Benzene	0.001	mg/L	-	< 0.001
Toluene	0.001	mg/L	-	< 0.001
Ethylbenzene	0.001	mg/L	-	< 0.001
m&p-Xylenes	0.002	mg/L	-	< 0.002
o-Xylene	0.001	mg/L	-	< 0.001
Xylenes - Total*	0.003	mg/L	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	84

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 24, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Aug 24, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 24, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
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Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
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Brisbane
1/21 Smallwood Place
Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
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Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
External Laboratory																
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
1	614-TP01_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056105	X					X	X		X		
2	614-TP02_0-0.1	Aug 23, 2022		Soil	S22-Au0056106					X		X				
3	614-TP03_0-0.1	Aug 23, 2022		Soil	S22-Au0056107	X			X		X	X	X	X		
4	614-TP03_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056108					X		X				
5	QC20220823	Aug 23, 2022		Soil	S22-Au0056109						X	X		X		
6	614-TP04_0-0.1	Aug 23, 2022		Soil	S22-Au0056110	X										
7	614-TP04_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056111						X	X		X		
8	614-TP05_0.4-	Aug 23, 2022		Soil	S22-Au0056112	X					X	X		X		

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web: www.eurofins.com.au
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Melbourne
6 Monterey Road
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Perth
46-48 Banksia Road
Welshpool
WA 6106
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NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
9	614-TP06_0-0.1	Aug 23, 2022		Soil	S22-Au0056113					X		X				
10	614-TP07_0-0.1	Aug 23, 2022		Soil	S22-Au0056114	X					X	X		X		
11	614-TP08_0-0.1	Aug 23, 2022		Soil	S22-Au0056115					X		X				
12	614-TP09_0-0.1	Aug 23, 2022		Soil	S22-Au0056116	X										
13	614-TP09_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056117						X	X		X		
14	614-TP11_0-0.1	Aug 23, 2022		Soil	S22-Au0056118					X		X				
15	614-TP12_0-0.1	Aug 23, 2022		Soil	S22-Au0056119	X					X	X		X		
16	614-TP13_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056120					X		X				

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

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ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
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NATA# 1261 Site# 1254

Geelong
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Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
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NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
17	614-TP14_0-0.1	Aug 23, 2022		Soil	S22-Au0056121	X			X		X	X	X	X		
18	614-TP14_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056122					X		X				
19	614-TP14_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056123					X		X				
20	614-TP15_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056124					X		X				
21	614-TP15_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056125	X					X	X		X		
22	TRIP S	Aug 23, 2022		Water	S22-Au0056126											X
23	TRIP B	Aug 23, 2022		Water	S22-Au0056127										X	
24	FRAG01	Aug 23, 2022		Building Materials	S22-Au0056128		X									
25	614-TP01_0-0.1	Aug 23, 2022		Soil	S22-Au0056129			X								
26	614-TP01_0.4-	Aug 23, 2022		Soil	S22-Au0056130			X								

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
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NATA# 1261 Site# 1254

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4/52 Industrial Drive
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Welshpool
WA 6106
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Penrose,
Auckland 1061
Tel: +64 9 526 45 51
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
	0.5															
27	614-TP02_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056131			X								
28	614-TP02_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056132			X								
29	614-TP03_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056133			X								
30	614-TP03_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056134			X								
31	614-TP04_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056135			X								
32	614-TP04_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056136			X								
33	614-TP05_0-0.1	Aug 23, 2022		Soil	S22-Au0056137			X								
34	614-TP05_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056138			X								

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web: www.eurofins.com.au
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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
VIC 3175
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Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
35	614-TP05_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056139			X								
36	614-TP06_0.4-0.6	Aug 24, 2022		Soil	S22-Au0056140			X								
37	614-TP06_0.9-1.1	Aug 23, 2022		Soil	S22-Au0056141			X								
38	614-TP07_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056142			X								
39	614-TP08_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056143			X								
40	614-TP09_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056144			X								
41	614-TP10_0-0.1	Aug 23, 2022		Soil	S22-Au0056145			X								
42	614-TP10_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056146			X								
43	614-TP11_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056147			X								

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web: www.eurofins.com.au
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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South
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Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254												X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
44	614-TP11_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056148			X								
45	614-TP12_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056149			X								
46	614-TP13_0-0.1	Aug 23, 2022		Soil	S22-Au0056150			X								
47	614-TP14_0.2-0.3	Aug 23, 2022		Soil	S22-Au0056151			X								
48	614-TP14_0.9-1.0	Aug 23, 2022		Soil	S22-Au0056152			X								
49	QC20220823_1	Aug 23, 2022		Soil	S22-Au0056153			X								
50	614-TP15_0-0.1	Aug 23, 2022		Soil	S22-Au0056154			X								
51	614-TP15_0.4-0.5	Aug 23, 2022		Soil	S22-Au0056155			X								
52	614-TP15_1.4-1.5	Aug 23, 2022		Soil	S22-Au0056156			X								

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091

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

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: OLD NORTHERN RD
Project ID: 60935

Order No.:
Report #: 917317
Phone: 02 8245 0300
Fax:

Received: Aug 23, 2022 6:30 PM
Due: Aug 29, 2022
Priority: 3 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	Asbestos - WA guidelines	Asbestos Absence /Presence	HOLD	pH (1:5 Aqueous extract at 25 °C as rec.)	Metals M8	Suite B13: OCP/PCB	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA # 1261 Site # 1254							X	X		X	
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X	X	X	X	X
Test Counts	9	1	28	2	9	10	19	2	10	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	91			70-130	Pass	
Naphthalene	%	110			70-130	Pass	
TRH C6-C10	%	91			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	89			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	94			70-130	Pass	
o-Xylene	%	92			70-130	Pass	
Xylenes - Total*	%	93			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Au0049712	NCP	%	84			70-130	Pass	
Naphthalene	S22-Au0049712	NCP	%	106			70-130	Pass	
TRH C6-C10	S22-Au0049712	NCP	%	82			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Au0049712	NCP	%	87			70-130	Pass	
Toluene	S22-Au0049712	NCP	%	91			70-130	Pass	
Ethylbenzene	S22-Au0049712	NCP	%	92			70-130	Pass	
m&p-Xylenes	S22-Au0049712	NCP	%	91			70-130	Pass	
o-Xylene	S22-Au0049712	NCP	%	92			70-130	Pass	
Xylenes - Total*	S22-Au0049712	NCP	%	91			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Au0049711	NCP	mg/L	0.07	0.08	8.8	30%	Pass	
Naphthalene	S22-Au0049711	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S22-Au0049711	NCP	mg/L	0.08	0.09	11	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Au0049711	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S22-Au0049711	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S22-Au0049711	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S22-Au0049711	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S22-Au0049711	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S22-Au0049711	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

V2- new version to add 614 add the start of all TP samples as per client request.

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
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.

Authorised by:

Andrew Black	Analytical Services Manager
Raymond Siu	Senior Analyst-Volatile

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.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

EF

Pg 1 of 3

Chain of Custody

JBS&G

PROJECT NO.: 60935

PROJECT NAME: Old Norton Rd

DATE NEEDED BY:

LABORATORY BATCH NO.:

SAMPLERS: Dominic Noonan-O'Keeffe

QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) [redacted]@jbsg.com.au; (3) DONEEFF@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	Asbestos	TRH/BTEX	PAHs	OCPs	PCBs	CEC	pH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP01_0-0.1	Soil	23/8		B+J + ICE												
_0.2-0.3						X	X	X	X	X	X					
_0.4-0.4															X	
TP02_0-0.1						X										
_0.2-0.3																
_0.4-0.5																
TP03_0-0.1						X	X	X	X	X	X	X	X			
_0.2-0.3															X	
_0.4-0.5						X										
_0.9 1.0																
QC20220823						X		X	X	X	X					
TP04_0-0.1							X								X	
_0.2-0.3																
_0.4-0.5																
_0.9-1.0						X		X	X	X	X					
TP05_0-0.1																
_0.2-0.3																
_0.4-0.5						X	X	X	X	X	X					
_0.9-1.0															X	

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Dom N-O'K DATE: 23/8/22	CONSIGNMENT NOTE NO.	NAME: Alex DATE: 23/8/22	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: Eurofins 6:30 PM	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

917317

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Chain of Custody

JBS&G

PROJECT NO.: 60935
PROJECT NAME: Old Northern Rd
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: Dominic Noonan-O'Keeffe
QC LEVEL: NEPM (2013)
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) Sgray@jbsg.com.au; (3) DOKEEFFE@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	Asbestos	TRH/BTEX	PAHs	OCPs	PCBs	CLEC	pH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP06_0-0.1	Soil	23/8		B+S + ICE		X										
↓ _0.4-0.5	↓	↓		↓												
↓ _0.9-1.1	↓	↓		↓												
TP07_0-0.1	↓	↓		↓		X	X	X	X	X	X				X	
↓ _0.2-0.3	↓	↓		↓												
TP08_0-0.1	↓	↓		↓		X										
↓ _0.2-0.3	↓	↓		↓												
TP09_0-0.1	↓	↓		↓			X								X	
↓ _0.2-0.3	↓	↓		↓												
↓ _0.4-0.5	↓	↓		↓		X	X	X	X	X	X					
TP10_0-0.1	↓	↓		↓												
↓ _0.2-0.3	↓	↓		↓												
TP11_0-0.1	↓	↓		↓		X										
↓ _0.2-0.3	↓	↓		↓												
↓ _0.4-0.5	↓	↓		↓												
TP12_0-0.1	↓	↓		↓		X	X	X	X	X	X				X	
↓ _0.2-0.3	↓	↓		↓												
TP13_0-0.1	↓	↓		↓												
↓ _0.2-0.3	↓	↓		↓		X										

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Dom N-O'K DATE: 23/8/22	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO		COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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ALS # 917317

BF Pg 3 of 3.

Chain of Custody

JBS&G

PROJECT NO.: 60935
PROJECT NAME: Old Northern Rd,
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: Domini Noona-O'Keeffe
QC LEVEL: NEPM (2013)
PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) SCRAY@jbsg.com.au; (3) DOKEEFFE@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	Asbestos	TRH/BTEX	PAHs	OCPs	PCBs	CEC	pH	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TP14_0-0.1	Soil	23/8		B+S + ICE		X	X	X	X	X	X	X	X		X	
_0.2-0.3																
_0.4-0.5						X										
_0.9-1.0																
_1.4-1.5						X										
QC20220823_1																
TP15_0-0.1																
_0.2-0.3						X										
_0.4-0.5																
_0.9-1.0						X	X	X	X	X	X				X	
_1.4-1.5																
TRIP B/S	Water			Vials				X								
FRAG01							X							X		

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Dom N-O'K DATE: 23/8/22	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO		COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	4/52 Industrial Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield East NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	PO Box 60 Wickham 2293
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	Tel: +61 2 4968 8448
NATA# 1261 Site# 1254	NATA# 1261 Site# 1254	NATA# 1261 Site# 18217		NATA# 1261 Site# 20794	NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road	43 Detroit Drive
Penrose,	Rolleston,
Auckland 1061	Christchurch 7675
Tel: +64 9 526 45 51	Tel: 0800 856 450
IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Sarah Gray
Project name:	OLD NORTHERN RD
Project ID:	60935
Turnaround time:	3 Day
Date/Time received	Aug 23, 2022 6:30 PM
Eurofins reference	917317

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 3.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Sample IDs have been changed per email, TP06_0.2-0.3 -> 0.4-0.5 and TP06_0.4-0.5 -> 0.9-1.1.
Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Sarah Gray - sgray@jbsg.com.au.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 303939

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Gray
Address	Level 1, 50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**60935, Old Northern Rd**
Number of Samples	2 Soil
Date samples received	24/08/2022
Date completed instructions received	24/08/2022

Analysis Details

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

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

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

Report Details

Date results requested by	31/08/2022
Date of Issue	30/08/2022

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Results Approved By
Giovanni Agosti, Group Technical Manager
Kyle Gavrily, Senior Chemist
Liam Timmins, Organic Instruments Team Leader
Steven Luong, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date extracted	-	26/08/2022
Date analysed	-	29/08/2022
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	100

svTRH (C10-C40) in Soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date extracted	-	26/08/2022
Date analysed	-	29/08/2022
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	94

PAHs in Soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date extracted	-	26/08/2022
Date analysed	-	26/08/2022
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	87

Organochlorine Pesticides in soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date extracted	-	26/08/2022
Date analysed	-	26/08/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	87

PCBs in Soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date extracted	-	26/08/2022
Date analysed	-	26/08/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	87

Acid Extractable metals in soil		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date prepared	-	26/08/2022
Date analysed	-	26/08/2022
Arsenic	mg/kg	5
Cadmium	mg/kg	<0.4
Chromium	mg/kg	16
Copper	mg/kg	38
Lead	mg/kg	70
Mercury	mg/kg	0.1
Nickel	mg/kg	5
Zinc	mg/kg	110

Moisture		
Our Reference		303939-1
Your Reference	UNITS	QA20220823
Date Sampled		23/08/2022
Type of sample		Soil
Date prepared	-	26/08/2022
Date analysed	-	29/08/2022
Moisture	%	19

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			29/08/2022	[NT]	[NT]	[NT]	[NT]	29/08/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	91	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	91	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	90	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	92	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	80	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			28/08/2022	[NT]	[NT]	[NT]	[NT]	28/08/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	78	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	110	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	94	[NT]	[NT]	[NT]	[NT]	84	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	97	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date extracted	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	71	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	97	[NT]	[NT]	[NT]	[NT]	88	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Date analysed	-			26/08/2022	[NT]	[NT]	[NT]	[NT]	26/08/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	107	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	96	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]

Result Definitions

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

Quality Control Definitions

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

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

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

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Enviro lab

Chain of Custody

JBS&G

PROJECT NO.: 60935	LABORATORY BATCH NO.:
PROJECT NAME: Old Northern Rd.	SAMPLERS: Dominic Noonan - J Troeffe
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney 02 8245 0300 | Perth 08 9488 0100 | Brisbane 07 3112 2688 | Melbourne 03 9642 0599 | Adelaide 08 8431 7113

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) SCRAY.....@jbsg.com.au; (3) ..O.O'KEEFFE.....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	Asbestos	TRH/BTEX	PAHs	OCPs	PCBs	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1	QA20220823	Soil	23/8		B + J + ICE		X		X	X	X	X			
2	QA20220823_1	"	"												

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 303959

Date Received: 24/8/22

Time Received: 1530

Received By: CM

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Dom Noon DATE: 23/8/22	CONSIGNMENT NOTE NO.	NAME: CMCHEN	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 24/8/22 1530. OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	JBS & G (NSW & WA) Pty Ltd
Attention	Sarah Gray

Sample Login Details

Your reference	60935, Old Northern Rd
Envirolab Reference	303939
Date Sample Received	24/08/2022
Date Instructions Received	24/08/2022
Date Results Expected to be Reported	31/08/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	PCBs in Soil	Acid Extractable metalsin soil
QA20220823	✓	✓	✓	✓	✓	✓
QA20220823-1	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Sarah Gray**

Report **919122-L**
Project name ADDITIONAL - OLD NORTHERN RD
Project ID ADDITIONAL - 60935
Received Date Aug 31, 2022

Client Sample ID			**614-TP03_0-0.1**
Sample Matrix			**US Leachate**
Eurofins Sample No.			**S22-Au0069806**
Date Sampled			**Aug 23, 2022**
Test/Reference	LOR	Unit	
Heavy Metals			
Lead	0.01	mg/L	< 0.01
USA Leaching Procedure			
Leachate Fluid[C01]		comment	1.0
pH (initial)	0.1	pH Units	6.9
pH (off)	0.1	pH Units	5.2
pH (USA HCl addition)	0.1	pH Units	2.3

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Sydney	Aug 31, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
USA Leaching Procedure	Sydney	Aug 31, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091

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

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

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

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

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

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ADDITIONAL - OLD NORTHERN RD
Project ID: ADDITIONAL - 60935

Order No.:
Report #: 919122
Phone: 02 8245 0300
Fax:

Received: Aug 31, 2022 10:13 AM
Due: Sep 1, 2022
Priority: 1 Day
Contact Name: Sarah Gray

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Lead	USA Leaching Procedure
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	614-TP03_0-0.1	Aug 23, 2022		US Leachate	S22-Au0069806	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
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.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Lead			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	95			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S22-Au0069822	NCP	%	86			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S22-Au0069806	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Quinn Raw	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal

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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1 DAY TAT ADDITIONAL LEACHATEL FW: Eurofins Test Results - Report 917317 : Site OLD NORTHERN RD (60935)

Andrew Black <AndrewBlack@eurofins.com>

Wed 2022-08-31 10:23 AM

To: #AU04_Enviro_Sample_NSW <EnviroSampleNSW@eurofins.com>

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Urgent 1 day TAT additional leachate thanks team

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing Australia Pty Ltd
Unit 7
7 Friesian Close
SANDGATE, NSW, 2304
AUSTRALIA
Phone: +61 2 9900 8490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website: eurofins.com.au/environmental-testing

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For sample receipt enquiries (eg. SRAs, changes to analysis) please contact EnvirosampleNSW@eurofins.com or 02 9900 8421 (7am – 9pm).
For despatch enquiries (eg. courier bookings, bottle orders) please contact AU04_Despatch_SYD@eurofins.com or 0488 400 929 (8am – 4pm).

From: Sarah Gray <SGray@jbsg.com.au>
Sent: Wednesday, 31 August 2022 10:13 AM
To: Andrew Black <AndrewBlack@eurofins.com>
Subject: FW: Eurofins Test Results - Report 917317 : Site OLD NORTHERN RD (60935)

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Andrew,

Can I please get sample 614-TP03_0-0.1 analysed for Lead TCLP on 1 day TAT?

Thanks,

Sarah

Sarah Gray | Senior Project Manager| JBS&G
Gadigal Country | Level 1, 50 Margaret St, Sydney, NSW
T: 02 8245 0300 | M: 0405 625 748 | E: sgray@jbsg.com.au | W: jbsg.com.au | L: Conditions and Limitations

Exceptional Outcomes

From: AndrewBlack@eurofins.com <AndrewBlack@eurofins.com>
Sent: Tuesday, 30 August 2022 1:44 PM
To: Sarah Gray <SGray@jbsg.com.au>
Cc: Dominic Noonan-O'Keeffe <dokeeffe@jbsg.com.au>
Subject: Eurofins Test Results - Report 917317 : Site OLD NORTHERN RD (60935)

[EXTERNAL EMAIL]** Stop and think before opening attachments, clicking or responding.*

Here you go Sarah all fixed.

Kindest Regards,

Andrew Black
Analytical Services Manager

Eurofins | Environment Testing
Unit 7
7 Friesian Close
SANDGATE NSW 2304
AUSTRALIA
Phone: +61 299 008 490
Mobile: +61 410 220 750
Email: AndrewBlack@eurofins.com
Website:[http://]environment.eurofins.com.au
View our latest EnviroNotes
How did we do? Provide your feedback here

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	4/52 Industrial Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield East NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	PO Box 60 Wickham 2293
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	Tel: +61 2 4968 8448
NATA# 1261 Site# 1254	NATA# 1261 Site# 1254	NATA# 1261 Site# 18217		NATA# 1261 Site# 20794	NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road	43 Detroit Drive
Penrose,	Rolleston,
Auckland 1061	Christchurch 7675
Tel: +64 9 526 45 51	Tel: 0800 856 450
IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	JBS & G Australia (NSW) P/L
Contact name:	Sarah Gray
Project name:	ADDITIONAL - OLD NORTHERN RD
Project ID:	ADDITIONAL - 60935
Turnaround time:	1 Day
Date/Time received	Aug 31, 2022 10:13 AM
Eurofins reference	919122

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 3.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Sarah Gray - sgray@jbsg.com.au.

Global Leader - Results you can trust

Appendix L UCL Calculations

	Copper
	mg/kg
EQL	5
EIL - Site Specific	220

Sample ID	
HA01-0.0-0.1	130
HA02-0.0-0.1	93
HA03-0.0-0.1	160
HA04-0.0-0.1	170
HA05-0.0-0.1	39
HA06-0.0-0.1	26
HA07-0.0-0.1	120
HA08-0.0-0.1	80
HA09-0.0-0.1	21
HA11-0.0-0.1	130
HA12-0.0-0.1	26
QA01 (TP01-0.0-0.1)	240
TP02-0.0-0.1	16
TP03-0.0-0.1	22
TP04-0.0-0.1	20
TP05-0.0-0.1	68
TP06-0.0-0.1	48
TP07-0.0-0.1	53
TP08-0.0-0.1	23
TP09-0.0-0.1	53
TP10-0.4-0.5	63
TP11-0.0-0.1	59
TP12-0.9-1.0	35
TP13-0.2-0.3	16
TP14-0.0-0.1	14
TP15-0.0-0.1	170
TP16-0.2-0.3	16
TP17-0.0-0.1	86
TP18-0.0-0.1	39
TP19-0.0-0.1	35
TP20-0.4-0.5	53
TP20-0.9-1.0	60
TP21-0.0-0.1	36
TP22-0.0-0.1	29
614-TP01_0.2-0.3	15
614-TP02_0-0.1	14
614-TP03_0-0.1	41
614-TP03_0.4-0.5	28
614-TP05_0.4-0.5	19
614-TP06_0-0.1	12
614-TP07_0-0.1	23
614-TP08_0-0.1	44
614-TP11_0-0.1	5.5
614-TP12_0-0.1	2.5
614-TP14_0-0.1	9.5
614-TP14_0.4-0.5	27
614-TP15_0.2-0.3	17
614-TP15_0.9-1.0	17

UCL Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	1/09/2022 17:16
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

General Statistics

Total Number of Observations	48	Number of Distinct Observations	36
		Number of Missing Observations	0
Minimum	2.5	Mean	52.57
Maximum	240	Median	35
SD	**51.46**	Std. Error of Mean	7.428
Coefficient of Variation	0.979	Skewness	1.85

Normal GOF Test

Shapiro Wilk Test Statistic	0.777	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.205	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.128	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	65.04	95% Adjusted-CLT UCL (Chen-1995)	66.91
		95% Modified-t UCL (Johnson-1978)	65.37

Gamma GOF Test

A-D Test Statistic	0.883	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.77	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.111	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.131	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			

Gamma Statistics

k hat (MLE)	1.377	k star (bias corrected MLE)	1.305
Theta hat (MLE)	38.18	Theta star (bias corrected MLE)	40.29
nu hat (MLE)	132.2	nu star (bias corrected)	125.3
MLE Mean (bias corrected)	52.57	MLE Sd (bias corrected)	46.02
		Approximate Chi Square Value (0.05)	100.4
Adjusted Level of Significance	0.045	Adjusted Chi Square Value	99.73

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	65.58	95% Adjusted Gamma UCL (use when n<50)	66.03

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.979	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.947	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.079	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.128	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			

Lognormal Statistics

Minimum of Logged Data	0.916	Mean of logged Data	3.557
Maximum of Logged Data	5.481	SD of logged Data	0.932

Assuming Lognormal Distribution

95% H-UCL	73.66	90% Chebyshev (MVUE) UCL	78.39
95% Chebyshev (MVUE) UCL	89.68	97.5% Chebyshev (MVUE) UCL	105.4
99% Chebyshev (MVUE) UCL	136.1		

Nonparametric Distribution Free UCL Statistics
Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	64.79	95% Jackknife UCL	65.04
95% Standard Bootstrap UCL	64.82	95% Bootstrap-t UCL	68.31
95% Hall's Bootstrap UCL	67.34	95% Percentile Bootstrap UCL	64.98
95% BCA Bootstrap UCL	67.67		
90% Chebyshev(Mean, Sd) UCL	74.86	95% Chebyshev(Mean, Sd) UCL	84.95
97.5% Chebyshev(Mean, Sd) UCL	98.96	99% Chebyshev(Mean, Sd) UCL	126.5

Suggested UCL to Use

95% Adjusted Gamma UCL	**66**

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

	C16-G34
	mg/kg
EQL	100
ESLs for Urban Resi	1300

Sample ID	
HA01-0.0-0.1	50
HA03-0.0-0.1	50
HA04-0.0-0.1	50
HA06-0.0-0.1	50
HA07-0.0-0.1	50
HA10-0.2-0.3	390
HA12-0.0-0.1	130
TP01-0.0-0.1	50
TP04-0.0-0.1	50
TP05-0.0-0.1	200
TP07-0.0-0.1	190
TP10-0.4-0.5	50
TP13-0.2-0.3	50
TP15-0.0-0.1	50
TP16-0.2-0.3	50
TP17-0.0-0.1	50
TP20-0.4-0.5	50
TP21-0.0-0.1	1400
614-TP01_0.2-0.3	50
614-TP03_0-0.1	50
614-TP05_0.4-0.5	50
614-TP07_0-0.1	50
614-TP12_0-0.1	50
614-TP14_0-0.1	50
614-TP15_0.9-1.0	50

UCL Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	1/09/2022 17:17
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

General Statistics

Total Number of Observations	25	Number of Distinct Observations	6
		Number of Missing Observations	0
Minimum	50	Mean	132.4
Maximum	1400	Median	50
SD	**275.1**	Std. Error of Mean	55.03
Coefficient of Variation	2.078	Skewness	4.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.342	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.918	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.418	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.177	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	226.5	95% Adjusted-CLT UCL (Chen-1995)	275.2
		95% Modified-t UCL (Johnson-1978)	234.7

Gamma GOF Test

A-D Test Statistic	6.013	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.775	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.475	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.18	Data Not Gamma Distributed at 5% Significance Level	
Data Not Gamma Distributed at 5% Significance Level			

Gamma Statistics

k hat (MLE)	0.95	k star (bias corrected MLE)	0.863
Theta hat (MLE)	139.4	Theta star (bias corrected MLE)	153.5
nu hat (MLE)	47.5	nu star (bias corrected)	43.14
MLE Mean (bias corrected)	132.4	MLE Sd (bias corrected)	142.5
		Approximate Chi Square Value (0.05)	29.08
Adjusted Level of Significance	0.0395	Adjusted Chi Square Value	28.29

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	196.4	95% Adjusted Gamma UCL (use when n<50)	201.9

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.514	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.918	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.468	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.177	Data Not Lognormal at 5% Significance Level	
Data Not Lognormal at 5% Significance Level			

Lognormal Statistics

Minimum of Logged Data	3.912	Mean of logged Data	4.275
Maximum of Logged Data	7.244	SD of logged Data	0.833

Assuming Lognormal Distribution

95% H-UCL	150.1	90% Chebyshev (MVUE) UCL	154.8
95% Chebyshev (MVUE) UCL	179.7	97.5% Chebyshev (MVUE) UCL	214.3
99% Chebyshev (MVUE) UCL	282.2		

Nonparametric Distribution Free UCL Statistics
Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	222.9	95% Jackknife UCL	226.5
95% Standard Bootstrap UCL	219.6	95% Bootstrap-t UCL	588.3
95% Hall's Bootstrap UCL	530.9	95% Percentile Bootstrap UCL	240
95% BCA Bootstrap UCL	293.2		
90% Chebyshev(Mean, Sd) UCL	297.5	95% Chebyshev(Mean, Sd) UCL	372.3
97.5% Chebyshev(Mean, Sd) UCL	476.1	99% Chebyshev(Mean, Sd) UCL	679.9

Suggested UCL to Use

95% Chebyshev (Mean, Sd) UCL	**372**

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

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