



REMEDIATION ACTION PLAN

330-350 Eighth Avenue,
Austral NSW 2179

Woolworths Ltd – February 2024



Geo-Logix
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DOCUMENT CONTROL

REMEDIATION ACTION PLAN

330-350 Eighth Avenue,
Austral NSW 2179

PREPARED FOR

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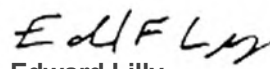
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EXECUTIVE SUMMARY

Geo-Logix Pty Ltd (Geo-Logix) was commissioned by Woolworths Ltd to prepare a Remediation Action Plan (RAP) of the property located at 330-350 Eighth Avenue, Austral NSW 2179. Geo-Logix understands the site is to be developed as a commercial shopping centre.

Environmental investigations by Geo-Logix in April 2023 identified bonded and friable asbestos in shallow soils in the location of existing and demolished sheds. The identified asbestos impacted soil requires remediation for the site to be considered suitable for the proposed development.

This RAP provides the health and safety procedures and environmental management procedures to remediate the site in a manner which protects public health and the environment. The RAP also outlines remediation acceptance criteria (RAC) and sampling strategies to validate suitability.

The objectives of the RAP include:

- Define AEC and Contaminants of Potential Concern (COPC).
- Evaluate remedial options in consideration of site conditions, logistical constraints, and commercial objectives.
- Define Data Quality Objectives (DQOs) and RAC to ensure the remediated site is validated for the proposed use.
- Define remediation procedures and methodologies.
- Define remediation validation methodology.
- Establish environmental safeguards so that remediation is undertaken in an environmentally acceptable manner.
- Define Work Health and Safety (WHS) requirements to protect site workers undertaking site remediation.

The Remedial strategy comprises delineation and the excavation and off-site disposal of asbestos impacted soils to a licensed landfill. To confirm remedial targets have been achieved:

- Validation samples will be collected from the resulting excavation on a 5 m grid-based sampling plan (minimum 2 base, 1 each wall) and analysed for asbestos.
- The remedial excavation surface will be visually cleared by a suitably qualified person.

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1. INTRODUCTION

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This RAP provides the health and safety procedures and environmental management procedures required to remediate the site in a manner which protects public health and the environment. The RAP also outlines remediation acceptance criteria (RAC) and sampling strategies to validate site suitability.

2. OBJECTIVE

The objectives of the RAP include:

- Define AEC and Contaminants of Potential Concern (COPC).
- Evaluate remedial options in consideration of site conditions, logistical constraints and commercial objectives.
- Define Data Quality Objectives (DQOs) and RAC to ensure the remediated site is validated for the proposed use.
- Define remediation procedures and methodologies.
- Define remediation validation methodology.
- Establish environmental safeguards so that remediation is undertaken in an environmentally acceptable manner.
- Define Work Health and Safety (WHS) requirements to protect site workers undertaking site remediation.

3. SITE INFORMATION

Address	330-350 Eighth Avenue, Austral NSW 2179 (Also referenced as 260-260A Eighth Avenue https://maps.six.nsw.gov.au/)
Lot and Deposited Plan (DP)	Lot 940 DP 1265677
Approximate Area	18,169 m ² (https://maps.six.nsw.gov.au/)
Coordinates	Lat: 33.937°S Long: 150.798°E
Zoning	B1 – Neighbourhood Centre
Current Land Use	The northern portion of the site is currently used for residential purposes. Three separate dwellings and a number of sheds exist on the northern portion of the site. The southern portion of the site is vacant, with the eastern portion overgrown. .

<p>Surrounding Land Use</p>	<p>North – Eighth Avenue and residential and vacant plots undergoing construction beyond; South – Auger Street and vacant plots beyond; East – Residential properties and vacant plots; and West – Residential properties, and Narrami Road beyond.</p>
<p>Site Description</p>	<p>The following observations were made during site inspection and field works conducted by Geo-Logix from March 6 to 8 2023 (Figure 2):</p> <ul style="list-style-type: none"> • The northern half of site has three residential properties and numerous sheds. • The central dwelling and sheds south of the central dwelling appear to comprise potential asbestos containing material (ACM) fibre cement sheeting. The majority of shed appears to comprise corrugated metal sheeting and a non-fibrous plaster cement sheeting. At least one shed (former toilet) in this location comprised a fibrous cement sheeting, likely ACM. This sheeting was broken in some areas. A substantial number of plaster cement fragments on the site surface in and around this location. Many were observed to be the non-fibrous plaster cement sheet that was considered not likely to be ACM, however, it was not possible to differentiate non-fibrous from fibrous due to the volume of fragments. It is likely there are some ACM cement fragments on the ground surface in this location. • The southern half of site is vacant, with the eastern half overgrown. Evidence of cropping over the southern portion remains (irrigation infrastructure). • Most of the site was unsealed and grassed.
<p>Topography and Elevation</p>	<p>The site topography has been artificially levelled with fill in some areas. There is a general slope towards the northeast. The regional topography also slopes towards northeast. The site elevation ranges from 75 to 80 m.</p>
<p>Geology</p>	<p>Mesozoic era, Triassic period, middle epoch, Wianamatta Group with shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff. (Penrith 1:100,000 Geological Series sheet 9030).</p>
<p>Nearest Surface Water</p>	<p>A tributary of Kemps Creek is located approximately 400 m northeast of the site and flow towards north. The closest surface water is a dam that is connected to this tributary 280m east of the site.</p>
<p>Regional Hydrogeology</p>	<p>Groundwater is expected to follow regional topography and flow northeast towards the tributary of Kemps Creek.</p>
<p>Underground Utilities</p>	<p>A Dial Before You Dig search was conducted to determine the presence of underground utilities which may act as conduits for contamination migration both onsite and offsite. The plans indicate:</p> <ul style="list-style-type: none"> • Endeavour Energy, Jemena and Telstra utilities run underneath Eighth Avenue north of the site and continue north and east; • Endeavour Energy, Jemena and Telstra utilities run underneath vacant land to be developed south of the site and run south and east; • Telstra utilities run underneath the northern portion of the site, entering the site from Eighth Avenue; • Sydney water utilities run underneath Eighth Avenue north of the site and continue east; and • Sydney water utilities run underneath Nemean Road southwest of the site and continue south.

4. PREVIOUS ENVIRONMENTAL INVESTIGATIONS

4.1 Detailed Site Investigation

Geo-Logix completed a Detailed Site Investigation (DSI) of the site in April 2023 (Geo-Logix, 2023). The objective of the DSI was to conduct an investigation to assess the presence or otherwise of contamination to the land associated with the historical and current activities. Further, the assessment was to consider the suitability of the site for the proposed commercial land use.

The scope of work comprised:

- Systematic sampling of shallow soils for market gardening COPC (OCPs and heavy metals) at 40 locations on a 21 m square grid. The sampling frequency meets NSW EPA (2022) minimum sampling density requirements and is sufficient to identify circular contamination hotspots equal to or greater than 25m diameter at a 95% degree of statistical certainty.
- Systematic sampling of shallow soils for market gardening COPC and fill/demolition COPC (OCPs heavy metals and asbestos) at 40 locations on a square 15 m grid sampling plan across the northern half of the site. The sampling frequency meets NSW EPA (2022) minimum sampling density requirements and WA DOH (2009) asbestos assessment guidelines and is sufficient to identify circular contamination hotspots equal to or greater than 17.7 m diameter at a 95% degree of statistical certainty.
- Analysis of samples from 15 locations in the northern half of the site, including two locations with samples of two different fill layers, for additional fill COPC including TRH, BTEX and PAHs. Samples were selected based on observations of fill thickness and anthropogenic inclusions.
- Analysis of samples in areas of current and former site infrastructure for COPC including Polychlorinated Biphenyls (PCBs) associated for former farming equipment maintenance.
- Analysis of samples from 4 locations in the southern half of the site for additional fill COPC including TRH, BTEX and PAHs.

Summarised analytical results are provided in Attachment A.

The investigation identified fragments of bonded ACM and fibrous asbestos material (FA) were identified in test pits TP15 and TP50 in the central portion of the northern half of the site.

Geo-Logix recommended the preparation and implementation of this RAP in order to render the site suitable for the proposed development.

5. SITE CONTAMINATION SUMMARY

The Geo-Logix DSI (2023) identified asbestos impacted soil on the site, requiring remediation for the site to be considered suitable for the proposed shopping centre development. The asbestos impacted soils are expected to comprise fill (0 to 1 metres in depth) in the area of test pits TP15 and 50, identified as Area of Environmental Concern 1 (AEC1) on Figure 3.

5.1 Conceptual Site Model

For site contamination to present a risk to human health and the environment there has to be a link between the contaminant and the receptor as detailed below.



If any of the links do not exist contaminant exposure cannot occur.

The conceptual model below was prepared based on the established site history, the potential distribution of COPC and considers the current and surrounding site use.

Conceptual Site Model – Contaminants in Soil and Groundwater			
Relevant Exposure Pathways	Receptors		
	On-site Workers and Visitors	Off-site Residents, Workers, etc.	Other
Soil Ingestion/Dermal Contact/Dust	✓	X	Terrestrial Ecology X
Inhalation of Vapours Derived from Soil	X	X	Trench worker X
Inhalation of Vapours Derived from Groundwater	X	X	Trench worker X
Soils Leaching to Groundwater	--	--	Ongoing Groundwater Impact X
Groundwater Ingestion / Dermal Contact	X	X	Trench worker X
Groundwater Discharge to Surface Water	--	--	Recreation/Aquatic ecosystem X
Comments			
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway complete potential unacceptable risk, investigation is required -- – Not relevant *Pathway is considered incomplete subject to expected removal of asbestos fragments during demolition works.			

6. DATA QUALITY OBJECTIVES

A Data Quality Objectives (DQO) process is used to define the type, quantity and quality of data needed to support decisions relating to the remediation of the site. Geo-Logix has adopted the seven step DQO process as described in AS 4482.1-2005 and US EPA (2000).

Step 1: State the problem.

Asbestos impacted soils require remediation for the site to be considered suitable for the proposed commercial development. An unexpected finds protocol needs to be implemented to address any future asbestos finds.

Step 2: Identify the remediation decision.

Remediation of the impacted soil has been performed and validated against Remediation Acceptance Criteria (RAC) and a Construction Environmental Management Plan (CEMP) has been prepared including an unexpected finds protocol with provisions for the management of incidental asbestos fragments identified during construction. The site can be considered suitable for commercial land use.

Step 3: Identify information inputs.

- Identification of COPC;
- Definition of RAC;
- Appropriate validation sampling strategy; and
- Assessment of validation data against RAC.

Step 4: Define the remediation boundaries of the site.

Remediation is to be undertaken within the areas of the site boundary as defined in Figure 2.

Step 5: Develop a decision rule.

- Validation sampling results meet the RAC,
- Minutes from a meeting attended by representatives of the Site Owner and Building Contractor record agreement to implement the CEMP, including unexpected finds protocol, during site construction.

Step 6: Specify acceptable limits on decision errors.

Field sampling methodology, sample preservation techniques, and laboratory analytical procedures must be appropriate to provide confidence in data quality so that any comparison against RAC can be considered reliable. This is achieved by defining and comparing results against the Data Quality Indicators (DQIs).

Step 7: Optimise the design for obtaining data.

Optimised design is achieved by referencing regulatory guidelines for sample design in consideration of the likely nature of contaminant distribution or undertaking additional intrusive investigation and sample collection based on field observations at the time of remedial works.

7. REMEDIATION OPTION CONSIDERATION

NSW Environment Protection Authority (EPA) (2017) *Guidelines for NSW Site Auditor Scheme* outlines the preferred hierarchy of remediation options. The preferred order for site remediation and management are:

1. On-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level.
2. Off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site.
3. Removal of contaminated soil to an approved site or facility, followed by the replacement of clean fill, where necessary.
4. Consolidation and isolation of the soil on site by containing with a properly designed barrier.

5. Implementation of an appropriate management strategy where assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect.

Preferred remediation options are detailed in the table below:

Issue of Concern	Preferred Remedial Option
Bonded and friable asbestos fragments were identified at concentrations above landuse assessment criteria in shallow fill (approximately 0.5 mbg) at locations TP15 and TP50. Both locations are adjacent to each other and are in the location of current and former sheds/structures. At least one shed (former toilet) in this area was constructed using a fibrous cement sheeting, likely ACM, which was broken in some areas.	Delineation of the asbestos impact by collection of samples on a 5m grid, and excavation and off-site disposal of impacted soil.

8. REMEDIATION ASSESSMENT CRITERIA

The following remediation assessment criteria will be adopted for validation of remediation.

NEPM Asbestos Criteria – Commercial / Industrial

Asbestos assessment criteria are included in NEPM (1999) amendment. Those criteria apply to the assessment of known and suspected asbestos contamination in soil and address friable and non-friable forms of asbestos.

While NEPM prescribes HSLs for bonded and friable asbestos on the basis of the proposed land use, Geo-Logix is mindful that remaining asbestos in soils would impose onerous restrictions on soils waste classification and site working conditions during future site construction. For this reason, the following assessment criteria have been adopted for the remediation of asbestos:

- No visible ACM on site surface or in the subsurface at soil sampling locations; and
- No asbestos identified in soil samples.

9. REGULATORY APPROVALS AND LICENSING

9.1 Waste Classification

All wastes generated shall be classified in accordance with NSW EPA (2014) *Waste Classification Guidelines* – Part 1 Classifying Waste.

9.2 Protection of Environment Operations Act 1997

Remedial works do not fall within the licensing requirements for Contaminated Soil Treatment Works. All material to be excavated and removed from the site will be undertaken in strict accordance with the requirements of the *Protection of the Environment Operations Act 1997* (NSW). Such requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Ensuring appropriate transport of wastes; and
- Ensuring wastes materials are disposed to appropriately licensed landfill facilities.

9.3 Protection of the Environment Operations (Waste) Regulation 2014

Remediation of contaminated material is not a scheduled activity under the *Protection of the Environment Operations (Waste) Regulation 2014* (NSW) and therefore does not require a licence under the regulation for the following reasons:

- Area of remedial disturbance will be less than 3 ha.

9.4 WHS Legislation, Regulations and Standards

The remediation works will be conducted in compliance with applicable WHS legislation, regulations and standards. These may include:

- Work Health and Safety Act 2011 (Commonwealth of Australia);
- Work Health and Safety Regulation 2017 (NSW); and
- Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC, 1995).

1.1 Asbestos Removal Regulations and Code of Practice

The movement and disposal of asbestos contaminated soils will be managed in accordance with the following:

- Work Health and Safety Act 2011 (Commonwealth of Australia);
- Work Health and Safety Regulation 2017 (NSW);
- Managing asbestos in or on soil (SafeWork NSW, 2014);
- How to Safely Remove Asbestos Code of Practice (Safe Work Australia, 2022a); and
- How to Manage and Control Asbestos in the Workplace Code of Practice (Safe Work NSW, 2022b)

Asbestos removal is to be completed under the supervision of a Class A Licenced Asbestos Removalist. SafeWork NSW must be notified five calendar days prior and an Asbestos Removal Control Plan is to be prepared by the party undertaking asbestos removal activities prior to the commencement of works.

10. PRELIMINARIES

10.1 Work to be completed prior to site establishment

Prior to undertaking works the following documents will be required:

- Site Specific Health and Safety Plan (SSHSP), Asbestos Removal Control Plan and Induction Record, and
- Site Management Plan (SMP).

10.2 Site Facilities

Site facilities to be established on site prior to the commencement of remedial works will include:

- Defined entry and exit points, and
- Vehicle wash down bay (if required).

10.3 Site Access

All personnel entering the site will be required to sign in / out at the site office. Personnel entering and working on the site will require the following:

- Complete Site Induction
- Appropriate Personnel Protective Equipment (PPE) as detailed in the SSHSP, and
- Hold a valid SafeWork NSW Work Health & Safety General Construction Card (White Card), or appropriate equivalent accepted in NSW.

10.4 Work Health and Safety Signage

Signage will be installed at site entrances detailing the location of first aid facilities and after hour contacts. Warning signs will be placed around the perimeter of the site to prevent unauthorised access.

10.5 Remediation Project Hours

Civil remediation work will be restricted to the following:

- Between 7 am to 6 pm Monday to Saturday;
- No work to be carried out on Sundays or public holidays; and
- Within work hours as prescribed by federal, state or local regulations.

11. REMEDIATION AND VALIDATION METHODOLOGY

Asbestos was identified in shallow fill in the vicinity of on-site sheds in the central portion of the northern half of site. Based on the identification of friable asbestos in soil, excavation and off-site disposal has been selected as the preferred remedial method. In order to reduce the amount of soil requiring disposal, further delineation of the impacted area is proposed.

11.1 Asbestos Delineation

Delineation of the asbestos impact within AEC1 is to be completed by sampling on a 5 m spaced grid. At each grid location, 10 L samples are to be collected for in situ gravimetric testing to characterise bonded asbestos and 500 mL samples are to be collected for laboratory testing to identify friable asbestos.

The NEPM (2013) Gravimetric Sample Method entails the following:

- The 10L sample will be spread out on a tarpaulin for inspection of ACM fragments; and

- Where ACM fragments are encountered the pieces will be collected and weighed so the % w/w ACM in soil can be calculated.

11.2 Remediation Methodology

Remediation of the identified asbestos is to be completed following the demolition of on-site structures and prior to other onsite works including any earthworks. Remediation comprising excavation and off-site disposal is to be accomplished by the following procedures:

- Securing the site and implementation of the SMP prior to remediation;
- Supervision of the works by a Class A Licensed Asbestos Removal Contractor. The Asbestos Removal Contractor is to prepare an Asbestos Removal Control Plan with specific safe work procedures for the task;
- Implementation of asbestos air monitoring during remediation and disposal activities by an independent Licensed Asbestos Assessor (LAA); and
- Under the supervision of a qualified environmental consultant, excavate shallow fill in the delineated area to the depth of natural soil, approximately 0.5 to 1 mbg. The actual excavation extent will be guided by onsite observations during remediation work.
- The excavated soil is to be stockpiled adjacent to the delineation area, and samples collected for waste classification. While on-site the stockpile is to be covered by black builders' plastic.
- Following waste classification, the material is to be disposed off-site to a facility licenced to accept such waste. Waste classification and disposal are to be completed in accordance with Section 14 below.
- Copies of the waste disposal receipts are to be included in the final Remediation and Validation Report.

11.3 Remediation Validation

Following excavation and off-site disposal of bonded ACM impacted soil, the remediation area is to be validated in accordance with the following methodology:

- Collection of natural soil samples from the floor of the excavation on a 5 metre grid-based sampling plan, with a minimum of two samples;
- Collection soil samples from the walls of the excavation, if applicable, every 5 lineal metres, with a minimum of one sample per wall;
- In-situ analysis of soil samples for bonded asbestos in accordance with the WA DOH gravimetric methodology;
- Laboratory analysis of 500 mL soil samples for friable asbestos in accordance with the WA DOH methodology;
- Comparison of analytical results against the RAC; and
- Visual inspection and preparation of a Clearance Certificate by a LAA is required in accordance with Clause 474 of the Work Health and Safety Regulation 2017 (NSW).

11.4 Remedial Excavation Reinstatement

Remedial excavations may be reinstated with on-site material meeting the RAC or imported fill meeting the requirements specified in Section 13.

12. UNEXPECTED FINDS AND CEMP

12.1 Pre-remediation Unexpected Finds Protocol

Based on the presence of the isolated asbestos fragments identified at site, it is considered that there is a high risk of additional asbestos fragment at the site

Care should be undertaken during development works so that contamination is not exacerbated. Should unexpected finds be encountered, the following is to be undertaken:

- Cease all works and cordon off the area;
- Notify the environmental consultant undertaking remediation works; and
- The consultant should assess the find in accordance with NEPM (1999, amended) and manage the find in accordance with the procedures outlined in this document.

12.2 Construction Environmental Management Plan

A CEMP is to be completed to guide the management of unexpected finds during site construction. The CEMP is to include procedures applicable to isolated fragments and/or caches of asbestos identified during site works.

Following remedial validation and preparation of the CEMP, the CEMP is to be provided to the Site Owner and contractor(s) selected for demolition and construction of the proposed development for implementation. A pre-construction meeting is to be held and attended by Geo-Logix, a Site Owner's representative and representatives of key contractors, including at a minimum the principal building contractor. The objective of the meeting will be to discuss the following with the relevant contractors and sub-contractors:

- The purpose of the CEMP;
- Relevant personnel, roles and responsibilities;
- Relevant regulations and guidelines; and
- Specific procedures outlined in the CEMP for the management of unexpected finds of asbestos and other contaminants.

A copy of the meeting minutes endorsed by all attendees is to be included as an attachment to the Remediation and Validation Report for the site.

13. IMPORTED FILL VALIDATION METHODOLOGY

If there is a requirement to reinstate remedial excavations with imported fill, fill must meet the definition of one or both of the following:

- Virgin Excavated Natural Material (VENM); or

- Excavated Natural Material (ENM).

Consignors of ENM have certain obligations under the ENM Exemption. The Environmental Consultant is to ensure imported fill meets VENM / ENM definition and acquire appropriate documentation for the client, the consignor of waste.

14. WASTE CLASSIFICATION, TRANSPORTATION AND DISPOSAL

Prior to offsite disposal, any unclassified soils, including soils impacted by unexpected finds are to be classified in accordance with the following methodology:

- Soil samples are to be collected at a rate in accordance with the minimum number of samples recommended for stockpile sampling in NSW EPA Contaminated Land Guidelines | Sampling Design Part 1 – Application, Section 5.4.6;
- Soil samples are to be analysed for COPC including TRH, BTEX, PAHs, OCPs, heavy metals and asbestos; and
- Analytical results are to be compared against NSW EPA (2014) *Waste Classification Guidelines*.

Transportation and off-site disposal is to be completed in accordance with the following:

- Truck transporting material for off-site disposal will be covered within the site before leaving;
- Trucks will exit the site via the exit point and will follow a predetermined transport route to the waste facility; and
- Classified material is to be disposed at a facility licensed by NSW EPA to accept such waste.

Further requirements for transport and disposal of asbestos impacted wastes are detailed in the following sections.

14.1 Asbestos Impacted Waste Handling, Transport and Disposal

Asbestos fragments and asbestos impacted soils generated are to be transported in accordance with Part 7 of the *Protection of the Environment Operations (Waste) Regulation 2014* (NSW).

This requires that persons transporting asbestos waste must ensure:

- Any part of any vehicle in which the person transports the waste is covered, and leak-proof, during the transportation;
- If the waste consists of bonded asbestos material—it is securely packaged during the transportation;
- If the waste consists of friable asbestos material—it is kept in a sealed container during transportation; and
- If the waste consists of asbestos-contaminated soils—it is wetted down.

For each load of asbestos waste, the waste transporter must provide the following information to the NSW EPA before the transportation of the load commences:

- The address of the site at which the asbestos waste has been generated (by its removal from the site), if known to the transporter;
- The name, address and contact details of the premises from which the load is proposed to be transported;
- The date on which it is proposed that the transportation commence;
- The name, address and contact details of the premises to which the waste is proposed to be transported;
- The approximate weight (in kilograms) of each class of asbestos waste in the load (rounded to the nearest kilogram and, if the amount to be rounded is 0.5 kilogram, rounded up); and
- Any other information specified in the *Asbestos and Waste Tyres Guidelines* (NSW EPA, 2015).

Furthermore, the waste transporter must provide the following information to the premises to which the transporter causes the load to be delivered no later than on delivery:

- The unique consignment code issued by the EPA in relation to that load; and
- Any other information specified in the *Asbestos and Waste Tyres Guidelines* (NSW EPA, 2015).

The movement of asbestos waste material is to be tracked using the NSW EPA on-line waste tracking system: <https://wastelocate.epa.nsw.gov.au/>.

15. DATA QUALITY INDICATORS

QC/QA will be tested by review of data against Data Quality Indicators (DQIs) to ensure data precision, accuracy, representativeness, comparability and completeness. A summary of DQIs are presented in the table below:

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind Replicate Samples	n/a for asbestos	-
Split Samples	n/a for asbestos	-
Accuracy		
Surrogate Spikes	n/a for asbestos	-
Laboratory Control Samples	n/a for asbestos	-
Matrix Spikes	n/a for asbestos	-
Analysis Blank	n/a for asbestos	-
Representativeness		
Samples Stored At 4°C	n/a for asbestos	-
Samples Analysed Within Specified Holding Times	n/a for asbestos	-

Data Quality Objectives	Frequency	Data Quality Indicator
Trip Spike	n/a for asbestos	-
Trip Blank	n/a for asbestos	-
Samples Transported Under COC Conditions	All Samples	-
Comparability		
NATA Approved Laboratory Analytical Method	All Samples, All Analytes	-
Consistent Sampling Techniques	All Samples	-
Appropriate Laboratory Reporting Limits	All Samples, All Analytes	-
Completeness		
Geo-Logix Standard Field Templates Used	All Samples	-
Appropriate Sampling To Support The Objectives	-	Meets minimum sampling requirements

Notes:

(1) AS 4482.1-2005 (Australian Standard, 2005) indicate an acceptable Relative Percentage Difference (RPD) range of 30%-50%, and that the variation can be expected to be higher for organic analysis than inorganics, and for low concentrations of analytes. Given the soil samples will be collected for the purpose of validating the removal of contaminated soils, any detected concentrations are expected to be low and close to the laboratory detection limits. As such, a RPD acceptable limit of 50% was deemed appropriate for the investigation.

(2) Field and Laboratory Quality Control/Quality Assurance (QA/QC) procedures will be conducted in accordance with NEPC (2013) and AS 4482.1-2005.

15.1 Field QA/QC

Field sample QA/QC in accordance with *AS 4482.1-2005* (Australian Standard, 2005) comprising duplicate, triplicate and rinsate samples are not required for asbestos.

Soil sampling will be undertaken in accordance with the Geo-Logix Soil Sampling Procedure (Attachment B), utilising disposal gloves between each sample location. Sampling equipment will be decontaminated by the following method:

- Washing in water and phosphate free detergent solution (Decon 90); and
- Double rinsing in tap water.

1.2 Laboratory QA/QC

If necessary, the following laboratories are proposed to be engaged to undertake sample analysis:

- Primary Laboratory - Eurofins MGT Laboratories Pty Ltd (Sydney) (NATA accredited); and
- Secondary Laboratory - Eurofins MGT Laboratories Pty Ltd (Melbourne) (NATA accredited).

Primary and secondary laboratories must comply with the minimum QA procedures documented in Schedule B(3) in NEPC (1999) *National Environmental Protection (Assessment of Site Contamination) Measure* and include but not be limited to:

- At least one analysis blank per batch;

- Duplicate analysis at a rate of one per batch or one per twenty samples, whichever is smaller;
- Laboratory Control Samples at a rate of one per batch;
- Matrix Spikes; and
- Surrogate Spikes.

The above lists QA procedures are not applicable to COC asbestos.

16. SITE MANAGEMENT PLAN

An SMP will be prepared to ensure appropriate procedures and methods are employed to minimise the potential for erosion, to avoid contamination leaving the site and to avoid disturbance of neighbouring areas.

The SMP is to be adhered to during the remediation works. The SMP will address the following:

- Water and soil management;
- Air quality management;
- Noise management; and
- Traffic management.

Remediation works will comply with relevant legislative requirements, licences, approvals and notices. Regular monitoring of environmental performance will be undertaken to identify if any areas require improvement.

16.1 Water and Soil Management

Where possible, excavation will be restricted to favourable weather conditions (e.g. dry, still or low wind weather). Additionally the following measures should be adhered to for water management on-site:

- Surface water management measures will be implemented prior to the commencement of excavation to divert surface water run-off away from excavations or stockpiles;
- Surface water and sediment management measures will also be implemented around stockpiles (if required). Any soil stockpiling areas will be lined with Low Density Polyethylene sheeting (LDPE) and banded to prevent runoff and to prevent leaching of contaminants to the sub-surface. The LDPE sheets are to be rolled out perpendicular to the slope, with a minimum of 300mm overlap. The up-gradient layer is to overlap the down-gradient layer. Each side of the overlap is to be sealed with a PVC tape. Stockpiles are to be surrounded by silt fence and / or straw bales;
- Should excavated material will be stockpiled, they are to be located away from traffic areas, from any potential disturbances and from existing drains. Stockpiles should be constructed in flat areas of the site; and
- In the event of rain, stockpiles will be covered in PVC plastic at the end of each day to prevent water infiltration, sediment runoff and escape of moisture or dust.

16.2 Air Quality Management

Dust emissions are to be minimised to a practical extent. The following measures may be used to ensure this:

- All loads entering and exiting the site are to be covered;
- Light water spray can be used to suppress dust;
- Stockpiles can be covered with LDPE; and
- Excavation surfaces can be lightly wetted down if emitting dust.

Asbestos air monitoring will be undertaken during bonded ACM remediation works.

16.3 Noise Management

The potential for noise impacts from the remediation works will result from the preparation of the site, movement of vehicles and operation of plant on the site.

Noise is not considered to be a significant issue for proposed activities at the subject site due to its location and surrounding land uses. Noise will be minimised by the following:

- Ensuring machinery is appropriately maintained; and
- Restricting work to designated work hours.

16.4 Traffic Management

All trucks and vehicles transporting soil, equipment, machinery or materials to and from the site will abide by the following:

- All vehicles will access the site via the site gate which will be designated prior to the commencement of works;
- A rumble grid or pad of crushed aggregate will be installed at the vehicle access entry/exit point;
- Comply with road traffic rules;
- Secure and cover all loads;
- Truck tyres and equipment will be inspected and dry cleaned if necessary prior to leaving disturbed areas; and
- Will not track soils onto the roads.

17. WORK HEALTH AND SAFETY

This section of the RAP describes the minimum standards to be adopted to protect the health and safety of all persons involved in remedial works.

The remediation contractor will develop and implement a suitable Health and Safety Management System in compliance with legislative and regulatory requirements.

A SSHSP will be developed prior to commencement of the works. The SSHSP will detail the appropriate health and safety information necessary to conduct the remediation works in a safe manner. The SSHSP must be read and understood by all people entering the site during remediation works. It is the Principal Contractor's responsibility to induct all site workers and visitors on the requirements of the OHS Plan. The SSHSP should outline the following:

- Statement of Responsibilities;
- Hazard Identification;
- Safe Work Procedures;
- Preparation of a large map for site workers depicting the location of residual contaminated soil;
- Define a list of relevant personnel, their duties, and contact details;
- Outline the appropriate PPE;
- Define air monitoring requirements and odour control measures;
- Outline personnel hygiene controls to minimise accidental exposure to contaminated soils and groundwater;
- Provide contact details and map to nearest hospital; and
- Toolbox talk meeting records and induction records for contractors.

17.1 Responsibilities

Responsibilities and duties of the remediation contractor in relation to WHS will include:

- Ensuring all work undertaken is performed in accordance with relevant legislation and regulations, and directions issued by regulatory authorities;
- Developing and documenting safe working practices for all employees and subcontractors;
- Ensuring workers are adequately trained to undertake their work tasks using the adopted work practices;
- Ensuring that the work is performed in strict adherence to the adopted work practices;
- Appointing a suitably qualified and experienced Site Safety Officer (SSO) to supervise and control safety matters;
- Supplying and maintaining first aid facilities and ensuring first aid attendants are present in accordance with statutory requirements;
- Ensuring all workers are inducted prior to their commencement of work. This will include site specific conditions, work procedures, emergency and evacuation procedures, decontamination and other relevant matters detailed in the SSHSP;
- Ensuring copies of SSHSP are readily available;
- Establishment and maintenance of a record of all hazardous substances on the site including provision of Material Safety Data Sheets (MSDS);
- Reporting all site incidents and accidents to the WorkCover Authority;

- Ensuring that the SSO is on-site during all site works to monitor compliance with the SSHSP;
- Ensuring that regular documented OHS inspections are conducted, including the use of a documented follow-up system to monitor improvements and measures introduced to rectify any observations made;
- Supplying and maintaining the required PPE; and
- Ensuring all workers are trained in the use of the PPE and correctly use PPE.

18. CONTINGENCY PLAN

The Contingency Plan (CP) concentrates on the response to incidents, including notification, activation, response and recovery phases, but also requires cause identification and review procedures.

Should an incident occur which causes, or has the potential to cause, environmental damage or harm to human health, the CP will govern responses in accordance with the specific incident procedures. Incidents addressed in the CP will include off-site discharges of impacted stormwater, flooding of drains, chemical spills, etc.

No contingency plan will substitute for sound environmental practice during the remedial works. Accordingly, it is the responsibility of the environmental consultant and remediation contractor to monitor the works at all times and manage all potentially significant activities in a proactive manner. Records of all actions relating to environmental protection measures, contingency events and impacts will be documented.

The following table summarises anticipated problems, the resulting impacts they may cause and the proposed response actions to be taken.

Anticipated Problem	Potential Impact	Corrective Action
Release of fuel/ oil from machinery	Impact of surface waters and/ or soils	Remove source, use adsorbent booms to remove oil, make any repairs.
Excessive dust	Nuisance complaints	Use water sprays; or stop dust- generating activity until better dust control can be achieved.
Excessive noise	Nuisance complaints	Identify source and review noise attenuation equipment.
Flooding by extreme rainfall events	Impact of stormwater	Cover stockpiles with plastic to reduce rainfall infiltration.
Asbestos is observed during site development outside of remedial areas	Health and safety issues	Work in the area of concern is to cease until assessment of the potential extent of the problem is conducted. Material may have to be transported off-site to an appropriately licensed landfill facility.
Equipment failures	Program delay	Maintain spare equipment and parts; keep rental options available.

19. COMMUNITY CONSULTATION

Based on immediate surrounding land use, non-sensitive environmental setting and limited nature of remediation works community consultation is not considered necessary.

20. REPORTING

A Remediation and Validation report is to be prepared in accordance with the following guidelines:

- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (NEPC, 1999); and
- Consultants Reporting on Contaminated Land: Contaminated Land Guidelines (OEH, 2020).

The report will include the following information:

- Description of the works completed;
- The DQOs for the validation program and their achievement by referencing DQIs;
- Detailed figures outlining the extent of the remediation works;
- Location of all validation samples;
- Summary analytical tables;
- Laboratory analytical reports;
- Summary of the tracking, volumes and fate of disposed material;
- Landfill disposal docket;
- A copy of the CEMP;
- Endorsed meeting minutes for the CEMP pre-construction meeting;
- Conclusions as to the suitability of the land for the proposed commercial land use; and
- Recommendation for additional remediation works or environmental monitoring (if required).

REFERENCES

Geo-Logix (2023) Detailed Site Investigation Report, 330-350 Eighth Avenue, Austral NSW 2179. Report Ref: 2301008Rpt01FinalV01_21Apr23.

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NSW EPA (2022) Sampling design part 1 – application, Contaminated Land Guidelines, NSW Environmental Protection Authority.

NSW EPA (2017) Guidelines for NSW Site Auditor Scheme (3rd edition), NSW Environment Protection Authority.

NSW EPA (2020) Consultants Reporting on Contaminated Land: Contaminated Land Guidelines, 2020 Protection of the Environment Operations Act 1997 (NSW)

Protection of the Environment Operations (Waste) Regulation 2005 (NSW)

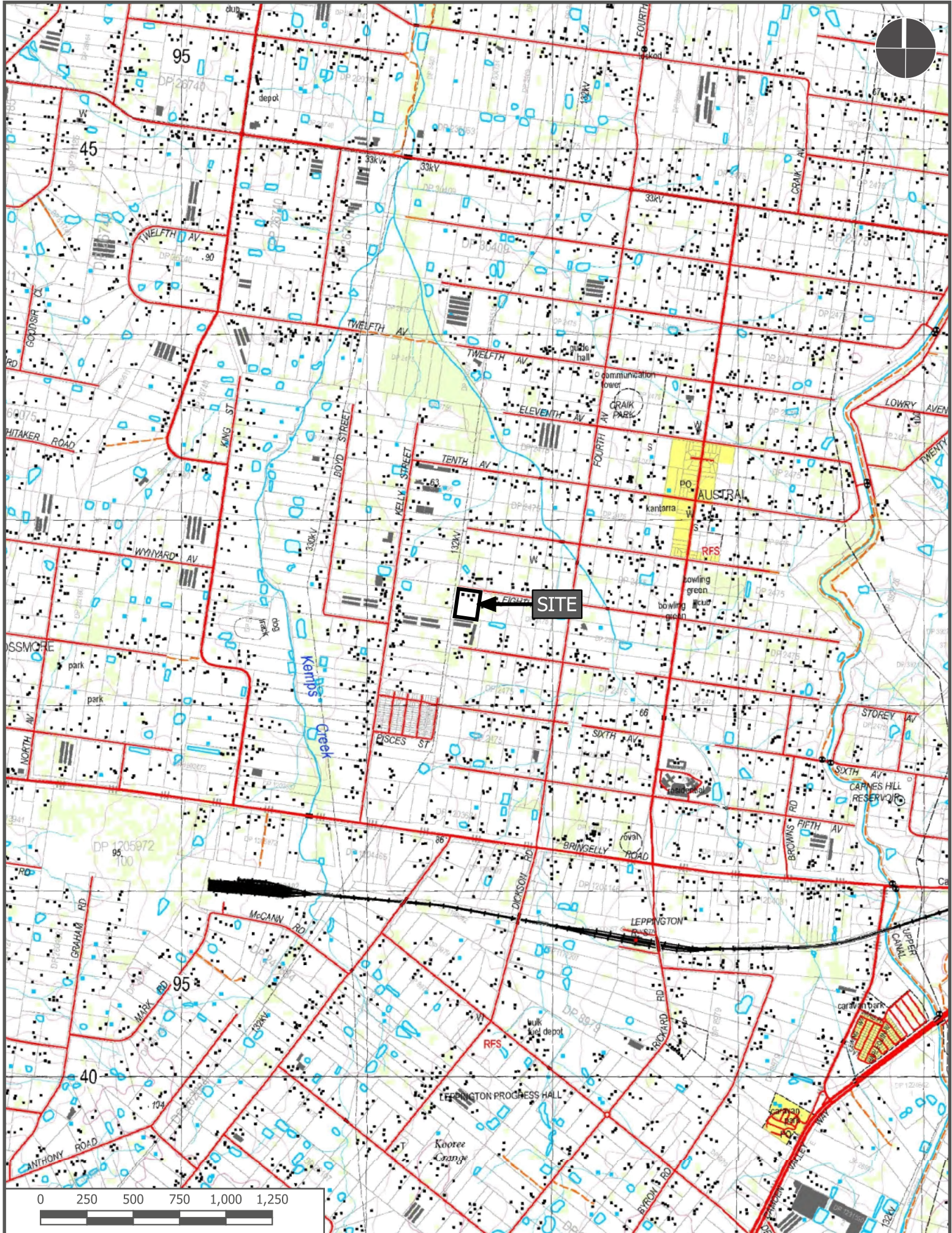
State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

US EPA (2000) Data Quality Objectives Process for Hazardous Wastes Site Investigations EPAQA/G-4HW, United States Environmental Protection Agency.

Workplace Health and Safety Act 2011 (Commonwealth of Australia)

Work Health and Safety Regulation 2017 (NSW)

FIGURES



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SITE LOCATION





Remediation Action Plan
 330-350 Eighth Avenue, Austral NSW 2179

Project No. 2401001

Figure 1



Key

-  Site Boundary
-  Test Bore Location (2023)
-  Deep Test Pit Location (2023)
-  Shallow Test Pit Location (2023)



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SITE MAP

Remediation Action Plan
 330-350 Eight Avenue, Austral NSW 2179

Project No. 2301008


Figure 2



Key

- Area of Environmental Concern
- ✕ Test Pit Locations (2023)
- ✕ Asbestos Delineation Sample Locations

0 5 10 15



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AREA OF ENVIRONMENTAL CONCERN

Remediation Action Plan
 330-350 Eight Avenue, Austral NSW 2179

Project No. 2401001 **Figure 3**

ATTACHMENT A

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP1/0.1-0.3	TP1/0.3-0.5	TP2/0-0.2	DS2	RPD_DS2
		Depth (m)	0.1-0.3	0.3-0.5	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	-
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDT	-		< 0.05	0.06	< 0.05	< 0.05	nc
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	nc
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS2	RPD_TS2	TP3/0-0.2	TP4/0.15-0.35	TP5/0-0.2
		Depth (m)	-	-	0.0-0.2	0.15-0.35	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	7/03/2023	-	7/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	nc	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	nc	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	nc	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP6/0.2-0.4	TP7/0-0.2	TP8/0.15-0.35	TP9/0-0.3	TP10/0-0.2
		Depth (m)	0.2-0.4	0.0-0.2	0.15-0.35	0.0-0.3	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	7/03/2023	7/03/2023	6/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDT	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP11/0-0.2	TP12/0-0.2	TP13/0-0.2	TP14/0-0.2	TP15/0-0.2
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	0.06
4.4'-DDT	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP16/0-0.2	DS1	RPD_DS1	TS1	RPD_TS1
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	7/03/2023	7/03/2023	-	7/03/2023	-
4.4'-DDD	-		< 0.05	< 0.05	nc	< 0.05	nc
4.4'-DDE	-		< 0.05	< 0.05	nc	< 0.05	nc
4.4'-DDT	-		< 0.05	< 0.05	nc	< 0.05	nc
a-BHC	-		< 0.05	< 0.05	nc	< 0.05	nc
Aldrin	-		< 0.05	< 0.05	nc	< 0.05	nc
b-BHC	-		< 0.05	< 0.05	nc	< 0.05	nc
Chlordanes - Total	530		< 0.1	< 0.1	nc	< 0.1	nc
d-BHC	-		< 0.05	< 0.05	nc	< 0.05	nc
Dieldrin	-		< 0.05	< 0.05	nc	< 0.05	nc
Endosulfan I	-		< 0.05	< 0.05	nc	< 0.05	nc
Endosulfan II	-		< 0.05	< 0.05	nc	< 0.05	nc
Endosulfan sulphate	-		< 0.05	< 0.05	nc	< 0.05	nc
Endrin	100		< 0.05	< 0.05	nc	< 0.05	nc
Endrin aldehyde	-		< 0.05	< 0.05	nc	< 0.05	nc
Endrin ketone	-		< 0.05	< 0.05	nc	< 0.05	nc
g-BHC (Lindane)	-		< 0.05	< 0.05	nc	< 0.05	nc
Heptachlor	50		< 0.05	< 0.05	nc	< 0.05	nc
Heptachlor epoxide	-		< 0.05	< 0.05	nc	< 0.05	nc
Hexachlorobenzene	80		< 0.05	< 0.05	nc	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP17/0-0.2	TP17/0.4-0.6	TP18/0-0.2	TP19/0-0.2	TP20/0-0.2
		Depth (m)	0.0-0.2	0.4-0.6	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	7/03/2023	7/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	0.06
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP21/0-0.2	TP22/0-0.2	TP23/0-0.2	TP24/0-0.2	TP25/0-0.1
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.1
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	7/03/2023	6/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP26/0-0.2	TP27/0-0.2	TP28/0-0.2	DS3	RPD_DS3
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	8/03/2023	8/03/2023	8/03/2023	-
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDE	-		< 0.05	0.14	< 0.05	< 0.05	nc
4.4'-DDT	-		< 0.05	0.14	< 0.05	< 0.05	nc
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	nc
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS3	RPD_TS3	TP29/0-0.2	TP30/0-0.2	TP31/0-0.2
		Depth (m)	-	-	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	8/03/2023	-	8/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		< 0.05	nc	< 0.05	< 0.05	0.06
a-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	nc	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	nc	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	nc	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	nc	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP32/0-0.3	TP33/0-0.1	TP34/0-0.1	TP35/0-0.2	TP36/0.3-0.5
		Depth (m)	0.0-0.3	0.0-0.1	0.0-0.1	0.0-0.2	0.3-0.5
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	8/03/2023	6/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		0.08	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		0.07	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP37/0-0.2	TP40/0-0.1	TP41/0-0.3	TP57/0.3-0.5	TP59/0-0.2
		Depth (m)	0.0-0.2	0.0-0.1	0.0-0.3	0.3-0.5	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	8/03/2023	8/03/2023	8/03/2023
4.4'-DDD	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	530		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	100		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	50		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	80		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP60/0-0.2	TRIPB1	TRIPS1	TRIPB2	TRIPS2
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	8/03/2023	-	-	-	-
4.4'-DDD	-		< 0.05	--	--	--	--
4.4'-DDE	-		< 0.05	--	--	--	--
4.4'-DDT	-		< 0.05	--	--	--	--
a-BHC	-		< 0.05	--	--	--	--
Aldrin	-		< 0.05	--	--	--	--
b-BHC	-		< 0.05	--	--	--	--
Chlordanes - Total	530		< 0.1	--	--	--	--
d-BHC	-		< 0.05	--	--	--	--
Dieldrin	-		< 0.05	--	--	--	--
Endosulfan I	-		< 0.05	--	--	--	--
Endosulfan II	-		< 0.05	--	--	--	--
Endosulfan sulphate	-		< 0.05	--	--	--	--
Endrin	100		< 0.05	--	--	--	--
Endrin aldehyde	-		< 0.05	--	--	--	--
Endrin ketone	-		< 0.05	--	--	--	--
g-BHC (Lindane)	-		< 0.05	--	--	--	--
Heptachlor	50		< 0.05	--	--	--	--
Heptachlor epoxide	-		< 0.05	--	--	--	--
Hexachlorobenzene	80		< 0.05	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Organochlorine Pesticides

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	R1
		Depth (m)	-
	HILs - D	Type	-
		Date	8/03/2023
4.4'-DDD	-		< 0.0002
4.4'-DDE	-		< 0.0002
4.4'-DDT	-		< 0.0002
a-BHC	-		< 0.0002
Aldrin	-		< 0.0002
b-BHC	-		< 0.0002
Chlordanes - Total	530		< 0.002
d-BHC	-		< 0.0002
Dieldrin	-		< 0.0002
Endosulfan I	-		< 0.0002
Endosulfan II	-		< 0.0002
Endosulfan sulphate	-		< 0.0002
Endrin	100		< 0.0002
Endrin aldehyde	-		< 0.0005
Endrin ketone	-		< 0.0002
g-BHC (Lindane)	-		< 0.0002
Heptachlor	50		< 0.0002
Heptachlor epoxide	-		< 0.0002
Hexachlorobenzene	80		< 0.0002

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 2 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP6/0.2-0.4	TP7/0-0.2	TP8/0.15-0.35	TP9/0-0.3	TP10/0-0.2
		Depth (m)	0.2-0.4	0.0-0.2	0.15-0.35	0.0-0.3	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	7/03/2023	7/03/2023	6/03/2023
Arsenic	3,000		7.7	12	17	16	11
Cadmium	900		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	3,600 ¹		13	21	37	30	17
Copper	240,000		8.2	11	22	25	27
Lead	1,500		8.9	44	29	22	26
Mercury	730		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	6,000		< 5	5.2	6.1	6.5	5.1
Zinc	400,000		7.3	54	36	39	88

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP1/0.1-0.3	TP1/0.3-0.5	TP2/0-0.2	DS2	RPD_DS2
	HSLs - D	Management	Depth (m)	0.1-0.3	0.3-0.5	0.0-0.2	-	-
	Sand	Limits	Type	Fill	Fill	Fill	-	-
	0 to <1 m	Comm/Ind	Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	-
TRH C ₆ -C ₁₀	-	700		< 20	< 20	< 20	--	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		< 20	< 20	< 20	--	--
TRH >C ₁₀ -C ₁₆	-	1,000		< 50	< 50	< 50	--	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		< 50	< 50	< 50	--	--
TRH >C ₁₆ -C ₃₄	-	3,500		< 100	< 100	< 100	--	--
TRH >C ₃₄ -C ₄₀	-	10,000		< 100	< 100	< 100	--	--
Benzene	3	-		< 0.1	< 0.1	< 0.1	--	--
Toluene	NL	-		< 0.1	< 0.1	< 0.1	--	--
Ethylbenzene	NL	-		< 0.1	< 0.1	< 0.1	--	--
m&p-Xylenes	-	-		< 0.2	< 0.2	< 0.2	--	--
o-Xylene	-	-		< 0.1	< 0.1	< 0.1	--	--
Xylenes - Total	230	-		< 0.3	< 0.3	< 0.3	--	--
Naphthalene (MAH)	NL	-		< 0.5	< 0.5	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TS2	RPD_TS2	TP3/0-0.2	TP4/0.15-0.35	TP5/0-0.2
	HSLs - D	Management	Depth (m)	-	-	0.0-0.2	0.15-0.35	0.0-0.2
	Sand	Limits	Type	-	-	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	7/03/2023	-	7/03/2023	8/03/2023	8/03/2023
TRH C ₆ -C ₁₀	-	700		--	--	< 20	< 20	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	--	< 20	< 20	--
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	< 50	< 50	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	< 50	< 50	--
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	< 100	< 100	--
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	< 100	< 100	--
Benzene	3	-		--	--	< 0.1	< 0.1	--
Toluene	NL	-		--	--	< 0.1	< 0.1	--
Ethylbenzene	NL	-		--	--	< 0.1	< 0.1	--
m&p-Xylenes	-	-		--	--	< 0.2	< 0.2	--
o-Xylene	-	-		--	--	< 0.1	< 0.1	--
Xylenes - Total	230	-		--	--	< 0.3	< 0.3	--
Naphthalene (MAH)	NL	-		--	--	< 0.5	< 0.5	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP6/0.2-0.4	TP7/0-0.2	TP8/0.15-0.35	TP9/0-0.3	TP10/0-0.2
	HSLs - D	Management	Depth (m)	0.2-0.4	0.0-0.2	0.15-0.35	0.0-0.3	0.0-0.2
	Sand	Limits	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	8/03/2023	7/03/2023	7/03/2023	7/03/2023	6/03/2023
TRH C ₆ -C ₁₀	-	700		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500		< 100	< 100	< 100	< 100	130
TRH >C ₃₄ -C ₄₀	-	10,000		< 100	< 100	< 100	< 100	< 100
Benzene	3	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP11/0-0.2	TP12/0-0.2	TP13/0-0.2	TP14/0-0.2	TP15/0-0.2
	HSLs - D	Management	Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
	Sand	Limits	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
TRH C ₆ -C ₁₀	-	700		--	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000		--	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500		--	150	< 100	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000		--	< 100	< 100	< 100	< 100
Benzene	3	-		--	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	-		--	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-		--	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-		--	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-		--	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	-		--	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH)	NL	-		--	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP16/0-0.2	DS1	RPD_DS1	TS1	RPD_TS1
	HSLs - D	Management	Depth (m)	0.0-0.2	-	-	-	-
	Sand	Limits	Type	Fill	-	-	-	-
	0 to <1 m	Comm/Ind	Date	7/03/2023	7/03/2023	-	7/03/2023	-
TRH C ₆ -C ₁₀	-	700		--	< 20	--	< 20	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	< 20	--	< 20	--
TRH >C ₁₀ -C ₁₆	-	1,000		--	< 50	--	< 50	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	< 50	--	< 50	--
TRH >C ₁₆ -C ₃₄	-	3,500		--	< 100	--	< 100	--
TRH >C ₃₄ -C ₄₀	-	10,000		--	< 100	--	< 100	--
Benzene	3	-		--	< 0.1	--	< 0.1	--
Toluene	NL	-		--	< 0.1	--	< 0.1	--
Ethylbenzene	NL	-		--	< 0.1	--	< 0.1	--
m&p-Xylenes	-	-		--	< 0.2	--	< 0.2	--
o-Xylene	-	-		--	< 0.1	--	< 0.1	--
Xylenes - Total	230	-		--	< 0.3	--	< 0.3	--
Naphthalene (MAH)	NL	-		--	< 0.5	--	< 0.5	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP17/0-0.2	TP17/0.4-0.6	TP18/0-0.2	TP19/0-0.2	TP20/0-0.2
	HSLs - D	Management	Depth (m)	0.0-0.2	0.4-0.6	0.0-0.2	0.0-0.2	0.0-0.2
	Sand	Limits	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	7/03/2023	7/03/2023	7/03/2023	8/03/2023	8/03/2023
TRH C ₆ -C ₁₀	-	700		< 20	< 20	--	--	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		< 20	< 20	--	--	--
TRH >C ₁₀ -C ₁₆	-	1,000		< 50	< 50	--	--	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		< 50	< 50	--	--	--
TRH >C ₁₆ -C ₃₄	-	3,500		< 100	< 100	--	--	--
TRH >C ₃₄ -C ₄₀	-	10,000		< 100	< 100	--	--	--
Benzene	3	-		< 0.1	< 0.1	--	--	--
Toluene	NL	-		< 0.1	< 0.1	--	--	--
Ethylbenzene	NL	-		< 0.1	< 0.1	--	--	--
m&p-Xylenes	-	-		< 0.2	< 0.2	--	--	--
o-Xylene	-	-		< 0.1	< 0.1	--	--	--
Xylenes - Total	230	-		< 0.3	< 0.3	--	--	--
Naphthalene (MAH)	NL	-		< 0.5	< 0.5	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP21/0-0.2	TP22/0-0.2	TP23/0-0.2	TP24/0-0.2	TP25/0-0.1
	HSLs - D	Management	Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.1
	Sand	Limits	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	8/03/2023	8/03/2023	8/03/2023	7/03/2023	6/03/2023
TRH C ₆ -C ₁₀	-	700		--	--	< 20	--	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	--	< 20	--	--
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	< 50	--	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	< 50	--	--
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	< 100	--	--
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	< 100	--	--
Benzene	3	-		--	--	< 0.1	--	--
Toluene	NL	-		--	--	< 0.1	--	--
Ethylbenzene	NL	-		--	--	< 0.1	--	--
m&p-Xylenes	-	-		--	--	< 0.2	--	--
o-Xylene	-	-		--	--	< 0.1	--	--
Xylenes - Total	230	-		--	--	< 0.3	--	--
Naphthalene (MAH)	NL	-		--	--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP26/0-0.2	TP27/0-0.2	TP28/0-0.2	DS3	RPD_DS3
	HSLs - D	Management	Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	-	-
	Sand	Limits	Type	Fill	Fill	Fill	-	-
	0 to <1 m	Comm/Ind	Date	7/03/2023	8/03/2023	8/03/2023	8/03/2023	-
TRH C ₆ -C ₁₀	-	700		--	--	< 20	--	--
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	--	< 20	--	--
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	< 50	--	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	< 50	--	--
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	< 100	--	--
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	< 100	--	--
Benzene	3	-		--	--	< 0.1	--	--
Toluene	NL	-		--	--	< 0.1	--	--
Ethylbenzene	NL	-		--	--	< 0.1	--	--
m&p-Xylenes	-	-		--	--	< 0.2	--	--
o-Xylene	-	-		--	--	< 0.1	--	--
Xylenes - Total	230	-		--	--	< 0.3	--	--
Naphthalene (MAH)	NL	-		--	--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TS3	RPD_TS3	TP29/0-0.2	TP30/0-0.2	TP31/0-0.2
	HSLs - D	Management	Depth (m)	-	-	0.0-0.2	0.0-0.2	0.0-0.2
	Sand	Limits	Type	-	-	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	8/03/2023	-	8/03/2023	8/03/2023	8/03/2023
TRH C ₆ -C ₁₀	-	700		--	--	--	--	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	--	--	--	< 20
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	--	--	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	--	--	< 50
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	--	--	< 100
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	--	--	< 100
Benzene	3	-		--	--	--	--	< 0.1
Toluene	NL	-		--	--	--	--	< 0.1
Ethylbenzene	NL	-		--	--	--	--	< 0.1
m&p-Xylenes	-	-		--	--	--	--	< 0.2
o-Xylene	-	-		--	--	--	--	< 0.1
Xylenes - Total	230	-		--	--	--	--	< 0.3
Naphthalene (MAH)	NL	-		--	--	--	--	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP32/0-0.3	TP33/0-0.1	TP34/0-0.1	TP35/0-0.2	TP36/0.3-0.5
	HSLs - D	Management	Depth (m)	0.0-0.3	0.0-0.1	0.0-0.1	0.0-0.2	0.3-0.5
	Sand	Limits	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Comm/Ind	Date	7/03/2023	8/03/2023	6/03/2023	8/03/2023	8/03/2023
TRH C ₆ -C ₁₀	-	700		--	--	--	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	--	--	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	--	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	--	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	--	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	--	< 100	< 100
Benzene	3	-		--	--	--	< 0.1	< 0.1
Toluene	NL	-		--	--	--	< 0.1	< 0.1
Ethylbenzene	NL	-		--	--	--	< 0.1	< 0.1
m&p-Xylenes	-	-		--	--	--	< 0.2	< 0.2
o-Xylene	-	-		--	--	--	< 0.1	< 0.1
Xylenes - Total	230	-		--	--	--	< 0.3	< 0.3
Naphthalene (MAH)	NL	-		--	--	--	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Criteria 2	Sample ID	TP60/0-0.2	TRIPB1	TRIPS1	TRIPB2	TRIPS2
	HSLs - D	Management	Depth (m)	0.0-0.2	-	-	-	-
	Sand	Limits	Type	Fill	-	-	-	-
	0 to <1 m	Comm/Ind	Date	8/03/2023	-	-	-	-
TRH C ₆ -C ₁₀	-	700		--	< 20	99	< 20	110
TRH C ₆ -C ₁₀ less BTEX (F1)	260	-		--	< 20	--	< 20	--
TRH >C ₁₀ -C ₁₆	-	1,000		--	--	--	--	--
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	NL	-		--	--	--	--	--
TRH >C ₁₆ -C ₃₄	-	3,500		--	--	--	--	--
TRH >C ₃₄ -C ₄₀	-	10,000		--	--	--	--	--
Benzene	3	-		--	< 0.1	97	< 0.1	110
Toluene	NL	-		--	< 0.1	99	< 0.1	110
Ethylbenzene	NL	-		--	< 0.1	100	< 0.1	110
m&p-Xylenes	-	-		--	< 0.2	100	< 0.2	100
o-Xylene	-	-		--	< 0.1	110	< 0.1	100
Xylenes - Total	230	-		--	< 0.3	100	< 0.3	100
Naphthalene (MAH)	NL	-		--	< 0.5	91	< 0.5	100

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, coarse material.

Total concentrations in mg/kg

-- = assessment criteria not available

NL = not limiting

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP1/0.1-0.3	TP1/0.3-0.5	TP2/0-0.2	DS2	RPD_DS2
		Depth (m)	0.1-0.3	0.3-0.5	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	-
Acenaphthene	-		< 0.5	< 0.5	< 0.5	--	--
Acenaphthylene	-		< 0.5	< 0.5	< 0.5	--	--
Anthracene	-		< 0.5	< 0.5	< 0.5	--	--
Benz(a)anthracene	-		< 0.5	< 0.5	< 0.5	--	--
Benzo(a)pyrene	-		< 0.5	< 0.5	< 0.5	--	--
Benzo(b&j)fluoranthene	-		< 0.5	< 0.5	< 0.5	--	--
Benzo(g,h,i)perylene	-		< 0.5	< 0.5	< 0.5	--	--
Benzo(k)fluoranthene	-		< 0.5	< 0.5	< 0.5	--	--
Chrysene	-		< 0.5	< 0.5	< 0.5	--	--
Dibenz(a,h)anthracene	-		< 0.5	< 0.5	< 0.5	--	--
Fluoranthene	-		< 0.5	< 0.5	< 0.5	--	--
Fluorene	-		< 0.5	< 0.5	< 0.5	--	--
Indeno(1.2.3-cd)pyrene	-		< 0.5	< 0.5	< 0.5	--	--
Naphthalene	-		< 0.5	< 0.5	< 0.5	--	--
Phenanthrene	-		< 0.5	< 0.5	< 0.5	--	--
Pyrene	-		< 0.5	< 0.5	< 0.5	--	--
Benzo(a)pyrene TEQ	40		0.6	0.6	0.6	--	--
Total PAH	4,000		< 0.5	< 0.5	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS2	RPD_TS2	TP3/0-0.2	TP4/0.15-0.35	TP5/0-0.2
		Depth (m)	-	-	0.0-0.2	0.15-0.35	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	7/03/2023	-	7/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		--	--	< 0.5	< 0.5	--
Acenaphthylene	-		--	--	< 0.5	< 0.5	--
Anthracene	-		--	--	< 0.5	< 0.5	--
Benz(a)anthracene	-		--	--	< 0.5	< 0.5	--
Benzo(a)pyrene	-		--	--	< 0.5	< 0.5	--
Benzo(b&j)fluoranthene	-		--	--	< 0.5	< 0.5	--
Benzo(g,h,i)perylene	-		--	--	< 0.5	< 0.5	--
Benzo(k)fluoranthene	-		--	--	< 0.5	< 0.5	--
Chrysene	-		--	--	< 0.5	< 0.5	--
Dibenz(a,h)anthracene	-		--	--	< 0.5	< 0.5	--
Fluoranthene	-		--	--	< 0.5	< 0.5	--
Fluorene	-		--	--	< 0.5	< 0.5	--
Indeno(1.2.3-cd)pyrene	-		--	--	< 0.5	< 0.5	--
Naphthalene	-		--	--	< 0.5	< 0.5	--
Phenanthrene	-		--	--	< 0.5	< 0.5	--
Pyrene	-		--	--	< 0.5	< 0.5	--
Benzo(a)pyrene TEQ	40		--	--	0.6	0.6	--
Total PAH	4,000		--	--	< 0.5	< 0.5	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP6/0.2-0.4	TP7/0-0.2	TP8/0.15-0.35	TP9/0-0.3	TP10/0-0.2
		Depth (m)	0.2-0.4	0.0-0.2	0.15-0.35	0.0-0.3	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	7/03/2023	7/03/2023	6/03/2023
Acenaphthene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	40		0.6	0.6	0.6	0.6	0.6
Total PAH	4,000		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP11/0-0.2	TP12/0-0.2	TP13/0-0.2	TP14/0-0.2	TP15/0-0.2
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-		--	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	40		--	0.6	0.6	0.6	0.6
Total PAH	4,000		--	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP16/0-0.2	DS1	RPD_DS1	TS1	RPD_TS1
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	7/03/2023	7/03/2023	-	7/03/2023	-
Acenaphthene	-		--	< 0.5	--	< 0.5	--
Acenaphthylene	-		--	< 0.5	--	< 0.5	--
Anthracene	-		--	< 0.5	--	< 0.5	--
Benz(a)anthracene	-		--	< 0.5	--	< 0.5	--
Benzo(a)pyrene	-		--	< 0.5	--	< 0.5	--
Benzo(b&j)fluoranthene	-		--	< 0.5	--	< 0.5	--
Benzo(g,h,i)perylene	-		--	< 0.5	--	< 0.5	--
Benzo(k)fluoranthene	-		--	< 0.5	--	< 0.5	--
Chrysene	-		--	< 0.5	--	< 0.5	--
Dibenz(a,h)anthracene	-		--	< 0.5	--	< 0.5	--
Fluoranthene	-		--	< 0.5	--	< 0.5	--
Fluorene	-		--	< 0.5	--	< 0.5	--
Indeno(1.2.3-cd)pyrene	-		--	< 0.5	--	< 0.5	--
Naphthalene	-		--	< 0.5	--	< 0.5	--
Phenanthrene	-		--	< 0.5	--	< 0.5	--
Pyrene	-		--	< 0.5	--	< 0.5	--
Benzo(a)pyrene TEQ	40		--	0.6	--	0.6	--
Total PAH	4,000		--	< 0.5	--	< 0.5	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP17/0-0.2	TP17/0.4-0.6	TP18/0-0.2	TP19/0-0.2	TP20/0-0.2
		Depth (m)	0.0-0.2	0.4-0.6	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	7/03/2023	7/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		< 0.5	< 0.5	--	--	--
Acenaphthylene	-		< 0.5	< 0.5	--	--	--
Anthracene	-		< 0.5	< 0.5	--	--	--
Benz(a)anthracene	-		< 0.5	< 0.5	--	--	--
Benzo(a)pyrene	-		< 0.5	< 0.5	--	--	--
Benzo(b&j)fluoranthene	-		< 0.5	< 0.5	--	--	--
Benzo(g,h,i)perylene	-		< 0.5	< 0.5	--	--	--
Benzo(k)fluoranthene	-		< 0.5	< 0.5	--	--	--
Chrysene	-		< 0.5	< 0.5	--	--	--
Dibenz(a,h)anthracene	-		< 0.5	< 0.5	--	--	--
Fluoranthene	-		< 0.5	< 0.5	--	--	--
Fluorene	-		< 0.5	< 0.5	--	--	--
Indeno(1.2.3-cd)pyrene	-		< 0.5	< 0.5	--	--	--
Naphthalene	-		< 0.5	< 0.5	--	--	--
Phenanthrene	-		< 0.5	< 0.5	--	--	--
Pyrene	-		< 0.5	< 0.5	--	--	--
Benzo(a)pyrene TEQ	40		0.6	0.6	--	--	--
Total PAH	4,000		< 0.5	< 0.5	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP21/0-0.2	TP22/0-0.2	TP23/0-0.2	TP24/0-0.2	TP25/0-0.1
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.1
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	7/03/2023	6/03/2023
Acenaphthene	-		--	--	< 0.5	--	--
Acenaphthylene	-		--	--	< 0.5	--	--
Anthracene	-		--	--	< 0.5	--	--
Benz(a)anthracene	-		--	--	< 0.5	--	--
Benzo(a)pyrene	-		--	--	< 0.5	--	--
Benzo(b&j)fluoranthene	-		--	--	< 0.5	--	--
Benzo(g,h,i)perylene	-		--	--	< 0.5	--	--
Benzo(k)fluoranthene	-		--	--	< 0.5	--	--
Chrysene	-		--	--	< 0.5	--	--
Dibenz(a,h)anthracene	-		--	--	< 0.5	--	--
Fluoranthene	-		--	--	< 0.5	--	--
Fluorene	-		--	--	< 0.5	--	--
Indeno(1.2.3-cd)pyrene	-		--	--	< 0.5	--	--
Naphthalene	-		--	--	< 0.5	--	--
Phenanthrene	-		--	--	< 0.5	--	--
Pyrene	-		--	--	< 0.5	--	--
Benzo(a)pyrene TEQ	40		--	--	0.6	--	--
Total PAH	4,000		--	--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP26/0-0.2	TP27/0-0.2	TP28/0-0.2	DS3	RPD_DS3
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	8/03/2023	8/03/2023	8/03/2023	-
Acenaphthene	-		--	--	< 0.5	--	--
Acenaphthylene	-		--	--	< 0.5	--	--
Anthracene	-		--	--	< 0.5	--	--
Benz(a)anthracene	-		--	--	< 0.5	--	--
Benzo(a)pyrene	-		--	--	< 0.5	--	--
Benzo(b&j)fluoranthene	-		--	--	< 0.5	--	--
Benzo(g,h,i)perylene	-		--	--	< 0.5	--	--
Benzo(k)fluoranthene	-		--	--	< 0.5	--	--
Chrysene	-		--	--	< 0.5	--	--
Dibenz(a,h)anthracene	-		--	--	< 0.5	--	--
Fluoranthene	-		--	--	< 0.5	--	--
Fluorene	-		--	--	< 0.5	--	--
Indeno(1.2.3-cd)pyrene	-		--	--	< 0.5	--	--
Naphthalene	-		--	--	< 0.5	--	--
Phenanthrene	-		--	--	< 0.5	--	--
Pyrene	-		--	--	< 0.5	--	--
Benzo(a)pyrene TEQ	40		--	--	0.6	--	--
Total PAH	4,000		--	--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS3	RPD_TS3	TP29/0-0.2	TP30/0-0.2	TP31/0-0.2
		Depth (m)	-	-	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	8/03/2023	-	8/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		--	--	--	--	< 0.5
Acenaphthylene	-		--	--	--	--	< 0.5
Anthracene	-		--	--	--	--	< 0.5
Benz(a)anthracene	-		--	--	--	--	< 0.5
Benzo(a)pyrene	-		--	--	--	--	< 0.5
Benzo(b&j)fluoranthene	-		--	--	--	--	< 0.5
Benzo(g,h,i)perylene	-		--	--	--	--	< 0.5
Benzo(k)fluoranthene	-		--	--	--	--	< 0.5
Chrysene	-		--	--	--	--	< 0.5
Dibenz(a,h)anthracene	-		--	--	--	--	< 0.5
Fluoranthene	-		--	--	--	--	< 0.5
Fluorene	-		--	--	--	--	< 0.5
Indeno(1.2.3-cd)pyrene	-		--	--	--	--	< 0.5
Naphthalene	-		--	--	--	--	< 0.5
Phenanthrene	-		--	--	--	--	< 0.5
Pyrene	-		--	--	--	--	< 0.5
Benzo(a)pyrene TEQ	40		--	--	--	--	0.6
Total PAH	4,000		--	--	--	--	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP32/0-0.3	TP33/0-0.1	TP34/0-0.1	TP35/0-0.2	TP36/0.3-0.5
		Depth (m)	0.0-0.3	0.0-0.1	0.0-0.1	0.0-0.2	0.3-0.5
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	8/03/2023	6/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		--	--	--	< 0.5	< 0.5
Acenaphthylene	-		--	--	--	< 0.5	< 0.5
Anthracene	-		--	--	--	< 0.5	< 0.5
Benz(a)anthracene	-		--	--	--	< 0.5	< 0.5
Benzo(a)pyrene	-		--	--	--	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-		--	--	--	< 0.5	< 0.5
Benzo(g,h,i)perylene	-		--	--	--	< 0.5	< 0.5
Benzo(k)fluoranthene	-		--	--	--	< 0.5	< 0.5
Chrysene	-		--	--	--	< 0.5	< 0.5
Dibenz(a,h)anthracene	-		--	--	--	< 0.5	< 0.5
Fluoranthene	-		--	--	--	< 0.5	< 0.5
Fluorene	-		--	--	--	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-		--	--	--	< 0.5	< 0.5
Naphthalene	-		--	--	--	< 0.5	< 0.5
Phenanthrene	-		--	--	--	< 0.5	< 0.5
Pyrene	-		--	--	--	< 0.5	< 0.5
Benzo(a)pyrene TEQ	40		--	--	--	0.6	0.6
Total PAH	4,000		--	--	--	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP37/0-0.2	TP40/0-0.1	TP41/0-0.3	TP57/0.3-0.5	TP59/0-0.2
		Depth (m)	0.0-0.2	0.0-0.1	0.0-0.3	0.3-0.5	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	8/03/2023	8/03/2023	8/03/2023
Acenaphthene	-		--	--	--	< 0.5	--
Acenaphthylene	-		--	--	--	< 0.5	--
Anthracene	-		--	--	--	< 0.5	--
Benz(a)anthracene	-		--	--	--	< 0.5	--
Benzo(a)pyrene	-		--	--	--	< 0.5	--
Benzo(b&j)fluoranthene	-		--	--	--	< 0.5	--
Benzo(g,h,i)perylene	-		--	--	--	< 0.5	--
Benzo(k)fluoranthene	-		--	--	--	< 0.5	--
Chrysene	-		--	--	--	< 0.5	--
Dibenz(a,h)anthracene	-		--	--	--	< 0.5	--
Fluoranthene	-		--	--	--	< 0.5	--
Fluorene	-		--	--	--	< 0.5	--
Indeno(1.2.3-cd)pyrene	-		--	--	--	< 0.5	--
Naphthalene	-		--	--	--	< 0.5	--
Phenanthrene	-		--	--	--	< 0.5	--
Pyrene	-		--	--	--	< 0.5	--
Benzo(a)pyrene TEQ	40		--	--	--	0.6	--
Total PAH	4,000		--	--	--	< 0.5	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP60/0-0.2	TRIPB1	TRIPS1	TRIPB2	TRIPS2
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	8/03/2023	-	-	-	-
Acenaphthene	-		--	--	--	--	--
Acenaphthylene	-		--	--	--	--	--
Anthracene	-		--	--	--	--	--
Benz(a)anthracene	-		--	--	--	--	--
Benzo(a)pyrene	-		--	--	--	--	--
Benzo(b&j)fluoranthene	-		--	--	--	--	--
Benzo(g,h,i)perylene	-		--	--	--	--	--
Benzo(k)fluoranthene	-		--	--	--	--	--
Chrysene	-		--	--	--	--	--
Dibenz(a,h)anthracene	-		--	--	--	--	--
Fluoranthene	-		--	--	--	--	--
Fluorene	-		--	--	--	--	--
Indeno(1.2.3-cd)pyrene	-		--	--	--	--	--
Naphthalene	-		--	--	--	--	--
Phenanthrene	-		--	--	--	--	--
Pyrene	-		--	--	--	--	--
Benzo(a)pyrene TEQ	40		--	--	--	--	--
Total PAH	4,000		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 4 : Summary of Soil Analytical Data - Polycyclic Aromatic Hydrocarbons

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	R1
		Depth (m)	-
	HILs - D	Type	-
		Date	8/03/2023
Acenaphthene	-		--
Acenaphthylene	-		--
Anthracene	-		--
Benz(a)anthracene	-		--
Benzo(a)pyrene	-		--
Benzo(b&j)fluoranthene	-		--
Benzo(g,h,i)perylene	-		--
Benzo(k)fluoranthene	-		--
Chrysene	-		--
Dibenz(a,h)anthracene	-		--
Fluoranthene	-		--
Fluorene	-		--
Indeno(1.2.3-cd)pyrene	-		--
Naphthalene	-		--
Phenanthrene	-		--
Pyrene	-		--
Benzo(a)pyrene TEQ	40		--
Total PAH	4,000		--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP1/0.1-0.3	TP1/0.3-0.5	TP2/0-0.2	DS2	RPD_DS2
		Depth (m)	0.1-0.3	0.3-0.5	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	-
Aroclor 1016	-		--	--	< 0.1	--	--
Aroclor 1221	-		--	--	< 0.1	--	--
Aroclor 1232	-		--	--	< 0.1	--	--
Aroclor 1242	-		--	--	< 0.1	--	--
Aroclor 1248	-		--	--	< 0.1	--	--
Aroclor 1254	-		--	--	< 0.1	--	--
Aroclor 1260	-		--	--	< 0.1	--	--
Total PCBs	7		--	--	< 0.1	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS2	RPD_TS2	TP3/0-0.2	TP4/0.15-0.35	TP5/0-0.2
		Depth (m)	-	-	0.0-0.2	0.15-0.35	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	7/03/2023	-	7/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP6/0.2-0.4	TP7/0-0.2	TP8/0.15-0.35	TP9/0-0.3	TP10/0-0.2
		Depth (m)	0.2-0.4	0.0-0.2	0.15-0.35	0.0-0.3	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	7/03/2023	7/03/2023	6/03/2023
Aroclor 1016	-		--	--	< 0.1	--	--
Aroclor 1221	-		--	--	< 0.1	--	--
Aroclor 1232	-		--	--	< 0.1	--	--
Aroclor 1242	-		--	--	< 0.1	--	--
Aroclor 1248	-		--	--	< 0.1	--	--
Aroclor 1254	-		--	--	< 0.1	--	--
Aroclor 1260	-		--	--	< 0.1	--	--
Total PCBs	7		--	--	< 0.1	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP11/0-0.2	TP12/0-0.2	TP13/0-0.2	TP14/0-0.2	TP15/0-0.2
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	< 0.1	--	< 0.1
Aroclor 1221	-		--	--	< 0.1	--	< 0.1
Aroclor 1232	-		--	--	< 0.1	--	< 0.1
Aroclor 1242	-		--	--	< 0.1	--	< 0.1
Aroclor 1248	-		--	--	< 0.1	--	< 0.1
Aroclor 1254	-		--	--	< 0.1	--	< 0.1
Aroclor 1260	-		--	--	< 0.1	--	< 0.1
Total PCBs	7		--	--	< 0.1	--	< 0.1

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP16/0-0.2	DS1	RPD_DS1	TS1	RPD_TS1
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	7/03/2023	7/03/2023	-	7/03/2023	-
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP17/0-0.2	TP17/0.4-0.6	TP18/0-0.2	TP19/0-0.2	TP20/0-0.2
		Depth (m)	0.0-0.2	0.4-0.6	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	7/03/2023	7/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP21/0-0.2	TP22/0-0.2	TP23/0-0.2	TP24/0-0.2	TP25/0-0.1
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.1
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	8/03/2023	8/03/2023	7/03/2023	6/03/2023
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP26/0-0.2	TP27/0-0.2	TP28/0-0.2	DS3	RPD_DS3
		Depth (m)	0.0-0.2	0.0-0.2	0.0-0.2	-	-
	HILs - D	Type	Fill	Fill	Fill	-	-
		Date	7/03/2023	8/03/2023	8/03/2023	8/03/2023	-
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TS3	RPD_TS3	TP29/0-0.2	TP30/0-0.2	TP31/0-0.2
		Depth (m)	-	-	0.0-0.2	0.0-0.2	0.0-0.2
	HILs - D	Type	-	-	Fill	Fill	Fill
		Date	8/03/2023	-	8/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP32/0-0.3	TP33/0-0.1	TP34/0-0.1	TP35/0-0.2	TP36/0.3-0.5
		Depth (m)	0.0-0.3	0.0-0.1	0.0-0.1	0.0-0.2	0.3-0.5
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	7/03/2023	8/03/2023	6/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP37/0-0.2	TP40/0-0.1	TP41/0-0.3	TP57/0.3-0.5	TP59/0-0.2
		Depth (m)	0.0-0.2	0.0-0.1	0.0-0.3	0.3-0.5	0.0-0.2
	HILs - D	Type	Fill	Fill	Fill	Fill	Fill
		Date	8/03/2023	7/03/2023	8/03/2023	8/03/2023	8/03/2023
Aroclor 1016	-		--	--	--	< 0.1	--
Aroclor 1221	-		--	--	--	< 0.1	--
Aroclor 1232	-		--	--	--	< 0.1	--
Aroclor 1242	-		--	--	--	< 0.1	--
Aroclor 1248	-		--	--	--	< 0.1	--
Aroclor 1254	-		--	--	--	< 0.1	--
Aroclor 1260	-		--	--	--	< 0.1	--
Total PCBs	7		--	--	--	< 0.1	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

-- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Polychlorinated Biphenyls

Detailed Site Investigation

Project No.: 2301008

330 - 350 Eighth Avenue

Austral NSW

	Criteria 1	Sample ID	TP60/0-0.2	TRIPB1	TRIPS1	TRIPB2	TRIPS2
		Depth (m)	0.0-0.2	-	-	-	-
	HILs - D	Type	Fill	-	-	-	-
		Date	8/03/2023	-	-	-	-
Aroclor 1016	-		--	--	--	--	--
Aroclor 1221	-		--	--	--	--	--
Aroclor 1232	-		--	--	--	--	--
Aroclor 1242	-		--	--	--	--	--
Aroclor 1248	-		--	--	--	--	--
Aroclor 1254	-		--	--	--	--	--
Aroclor 1260	-		--	--	--	--	--
Total PCBs	7		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

DS2 = duplicate of TP2/0-0.2

TS2 = triplicate of TP2/0-0.2

DS1 = duplicate of TP16/0-0.2

TS1 = triplicate of TP16/0-0.2

DS3 = duplicate of TP28/0-0.2

TS3 = triplicate of TP28/0-0.2

TRIPB1 = blank sample

TRIPS1 = spike sample

TRIPB2 = blank sample

TRIPS2 = spike sample

R1 = rinsate sample

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos	Sample ID	TP56/0-0.2	TP48/0-0.2	TP14/0-0.2	TP55/0-0.2	TP12/0-0.2
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		802	700	838	782	815
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

Total concentrations in g

- = assessment criteria not available

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

^ soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

FA = Fibrous Asbestos

AF = Asbestos Fines



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP57/0-0.15	TP6/0-0.2	TP46/0-0.2	TP43/0-0.2	TP47/0-0.2
			Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		607	724	617	704	795
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

Total concentrations in g

- = assessment criteria not available

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

^ soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

FA = Fibrous Asbestos

AF = Asbestos Fines



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP49/0-0.2	TP50/0-0.2	TP10/0-0.2	TP45/0-0.2	TP9/0-0.3
			Date	8/03/2023	8/03/2023	6/03/2023	6/03/2023	7/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		820	928	501	545	742
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	0.02	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	0.005	ND	ND	ND
Mass AF (g)	-	ND		ND	0.22	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	0.022	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	0.027	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	0.0029	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.
 Total concentrations in g
 - = assessment criteria not available
 < # or ND = analyte(s) not detected in excess of laboratory reporting limit
 -- = sample not analysed
 Bold/red indicates exceedance of assessment criteria
 ^ soil density assumed to be 1.6 kg/L
 * Field gravimetric data for 10L bulk sample ACM %w/w
 ** Laboratory data for 500mL sample bag for ACM %w/w
 ACM = Bonded Asbestos Containing Material
 FA = Fibrous Asbestos
 AF = Asbestos Fines



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP52/0-0.5	TP1/0.3-0.5	TP44/0.15-0.35	TP51/0-0.3	TP2/0-0.7
			Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	7/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		628	703	593	721	754
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.
 Total concentrations in g
 - = assessment criteria not available
 < # or ND = analyte(s) not detected in excess of laboratory reporting limit
 -- = sample not analysed
 Bold/red indicates exceedance of assessment criteria
 ^ soil density assumed to be 1.6 kg/L
 * Field gravimetric data for 10L bulk sample ACM %w/w
 ** Laboratory data for 500mL sample bag for ACM %w/w
 ACM = Bonded Asbestos Containing Material
 FA = Fibrous Asbestos
 AF = Asbestos Fines



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP38/0-0.6	TP8/0.15-1	TP39/0-0.6	TP7/0-0.4	TP42/0-0.3
			Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	7/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		780	592	696	670	503
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

Total concentrations in g

- = assessment criteria not available

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

^ soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

FA = Fibrous Asbestos

AF = Asbestos Fines

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP13/0-0.3	TP54/0-0.4	TP15/0-0.5	BH02/0.15-0.35	TP17/0-0.4
			Date	8/03/2023	8/03/2023	8/03/2023	7/03/2023	7/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	8.28	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	1.242	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	0.008%	ND	ND
Approximate Sample Mass (g)	-	-		712	641	872	317	782
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	0.036	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	0.014	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	0.014	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	0.0016	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

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-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

^ soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

FA = Fibrous Asbestos

AF = Asbestos Fines



Table 6 : Summary of Soil Analytical Data - Asbestos
Detailed Site Investigation
Project No.: 2301008
 330-350 Eighth Avenue,
 Austral, NSW

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP16/0-0.2	TP53/0-0.4	TP18/0-0.3	TP3/0-0.4	TP11/0-0.2
			Date	7/03/2023	7/03/2023	7/03/2023	7/03/2023	8/03/2023
Approximate Sample Mass (kg)^	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		699	705	578	573	835
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

Total concentrations in g

- = assessment criteria not available

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

^ soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

FA = Fibrous Asbestos

AF = Asbestos Fines

	Criteria 1	Criteria 2						
	Asbestos	Asbestos						
	HSL D - >0.1m	HSL D - Surface (Top 10 cm)	Sample ID	TP19/0-0.2	TP20/0-0.2	TP4/0-0.15	TP41/0-0.3	TP5/0-0.3
			Date	8/03/2023	8/03/2023	8/03/2023	8/03/2023	8/03/2023
Approximate Sample Mass (kg) [^]	-	-		16	16	16	16	16
Mass ACM (g)*	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in ACM (g)*	-	-		ND	ND	ND	ND	ND
Asbestos from ACM in Soil (%w/w)*	0.05	-		ND	ND	ND	ND	ND
Approximate Sample Mass (g)	-	-		799	657	799	501	648
Mass ACM (g)**	-	ND		--	--	--	--	--
Mass Asbestos in ACM (g)**	-	-		--	--	--	--	--
Asbestos from ACM in Soil (%w/w)**	0.05	-		--	--	--	--	--
Mass FA (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in FA (g)	-	-		ND	ND	ND	ND	ND
Mass AF (g)	-	ND		ND	ND	ND	ND	ND
Mass Asbestos in AF (g)	-	-		ND	ND	ND	ND	ND
Mass Asbestos in FA & AF (g)	-	-		ND	ND	ND	ND	ND
Asbestos from FA & AF in Soil (%w/w)	0.001	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, Health Screening Levels for asbestos contamination in soil.

Total concentrations in g

- = assessment criteria not available

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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[^] soil density assumed to be 1.6 kg/L

* Field gravimetric data for 10L bulk sample ACM %w/w

** Laboratory data for 500mL sample bag for ACM %w/w

ACM = Bonded Asbestos Containing Material

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ATTACHMENT B



SOIL SAMPLING PROCEDURE – GENERAL

1. Scope

The purpose of this Standard Operating Procedure is to provide a description of the procedures used for the collection and handling of soil samples. This procedure should be read in conjunction with the other specific sampling procedures.

2. Equipment

The following equipment may be required:

- Tape measure;
- Sample containers;
- Photoionisation detector (PID)
- Zip-lock plastic bags;
- Chain of Custody forms;
- Personal protective equipment;
- Coolers (esbies);
- Ice;
- Spade/shovel/trowel; and
- Hand auger.

3. Safety

A site specific Health and Safety Plan (HASP) must be developed before visiting site and signed off by a manager.

During the sampling of soils, the following personal protective equipment (PPE) should be worn as a minimum:

- Safety glasses;
- Nitrile gloves;
- Long-sleeved shirt; and
- Long-legged trousers.

Other PPE may be required depending on the nature of the soil contaminants. A hard hat may be required if sampling in the proximity of a drill rig / excavator or other hazard.

4. Soil Sampling Procedures

The following general sampling procedures should be applied when collecting soil samples:

- Prior to sample collection, the sample containers should be labelled with the unique sample ID code with depth e.g. (0.2-0.3), the date of collection and the job number in the appropriate spaces; sample ID and job number should be placed on the lid as well as on corresponding field logs to avoid confusion;
- A clean pair of nitrile gloves should be worn when collecting each sample prior to handling, so as to avoid cross contamination;
- Once samples are taken, ensure that jar or vial closures are free of soil particles before capping, The sample container should be sealed and placed immediately in an ice-cooled esky;
- A soil sub sample should be placed in a zip-lock bag for field screening for Volatile Organic Compounds (VOCs) using a PID. The zip-lock bag should be sealed and allowed to stand for approximately 5 minutes to allow for equilibration of volatile compounds to gas phase within the air space of the bag; and
- The tip of a PID should be used to puncture the zip-lock bag, and a PID reading taken once the reading has stabilised. The PID reading should be recorded in the sampler's field notes or on the relevant Geo-Logix Field Form.
- Geological information and other details of materials encountered are to be logged, using the boring log sheet (found at z:\06_Templates\Field Document Templates\FF_08 Field of Log of Boring). Logging must be in accordance with USCS (see FP009 Classification of Soils).

Composite Samples

The following should be applied when composite sampling is required:

- Soils samples should not be composited in the field;
- Soil should be collected as discrete samples;
- Compositing for non-volatile analytes should be undertaken by the laboratory; and
- Laboratory analysis of composite samples for volatile and semi-volatile compounds should not be undertaken due to potential loss of volatiles through the composite process.

Sampling Soil for Volatile Analysis

The following should be applied when soil sampling for volatile analysis is required:

- Collect samples that are reasonably intact, taking care to remove surrounding soils that have been disturbed.

5. Sample Handling, Transport and Storage



GEO-LOGIX STANDARD OPERATING PROCEDURE

Samples should be sealed and transported straight to the laboratory as soon as practicable. It is important to ensure that the samples remain cool and protected from light prior to and during transportation. Samples must be preserved under suitable cooling aids preferably ice bricks or a refrigerated container, but ice is just as effective to maintain sample integrity if necessary. Melted ice water in the esky/coolers should be drained and the ice should be replaced to maintain temperature and prevent samples from “swimming” in the esky which can cause cross-contamination.

6. Chain of Custody

Samples should be transported under Chain-of-Custody conditions to a National Association of Testing Authorities (NATA) accredited laboratory for analysis. A chain of custody should detail:

- Project Manager;
- Project Manager's email;
- Site identification (Project name/number);
- Date submitted to the lab;
- Purchase order number;
- Turnaround time (TAT) required;
- Sample ID;
- Date sample collected;
- Sample matrix;
- Comments;
- Analytes;
- Suite codes; and
- Courier collection time and date.

When filling out the COC check the sample ID matches what is written on the jars and appropriate field logs to avoid confusion at the laboratory and during reporting.



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