ATTACHMENT G

Preliminary & Detailed Site Investigation Report

9 Palaran Avenue, North Kellyville NSW 2155
Lot 3 in DP 249675

Project Ref. **P33391.1_R01**

2nd September 2021

Allam Homes Pty Ltd
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2nd of September 2021

Robert Moore & Associates Pty Ltd
ATT: Robert Moore

Covering Letter for Preliminary & Detailed Site Investigation Report; 9 Palaran Avenue, North Kellyville NSW 2155.

Dear Robert,

Please find enclosed the Preliminary and Detailed Site Investigation report prepared by Geotest Services for the property at 9 Palaran Avenue, North Kellyville NSW. Should you have any queries regarding the report and its contents please do not hesitate to be in contact with the undersigned.

We look forward to assisting you in future development and project works.

Regards,

Alan Halpin

Environmental Operations Manager

Jacob Barnes

Environmental Consultant

Document Control:

Reference	Version	Date	Prepared	Checked	Approved
P33391.1_R01	01	2/09/2021	J. Barnes A. Halpin	D.Spasojevic	D. Spasojevic

EXECUTIVE SUMMARY

This report presents the results of a combined Preliminary and Detailed Site Investigation undertaken by Geotest Services Pty Ltd (Geotest) at the Site. The report was commissioned by Robert Moore & Associates Pty Ltd. in order to address development and planning requirements under SEPP55[1], requiring contamination to be a consideration for the development application process. The Site is proposed for future low-density residential land re-development and land uses. The Site was legally identified to comprise Lot 3 in DP249675, also identified as 9 Palaran Avenue, North Kellyville NSW 2155. The Site was generally rectangular in shape and occupied an area of approximately 2.03ha.

The objective of the investigation was to assess for the likelihood of contamination to exist on the Site, to characterise Site soils to identify the nature and degree of contamination and any areas requiring remediation based on representative sampling and to conclude whether the Site would be suitable for the proposed future residential land uses.

To achieve the objectives, Geotest undertook the following scope of works; review of available geology; hydrogeology and topographical maps; review of historical aerial photographs; land title ownership record searches; NSW EPA contaminated land register search; NSW EPA POEO register search; NSW Office of Water registered groundwater bore search (500m radius of the Site); obtain and review the Section 10.7(2) planning certificate from The Hills Shire Council; Site inspection and walkover to observe current Site conditions and surrounding land uses; review of preliminary findings; preparation of Site sampling plan - targeting areas of environmental concern; Site works including test pit excavation and soil sampling; NATA accredited laboratory analysis; and interpretation of data and reporting.

A review of the available historical data and observations made during the Site walkover indicate a number of potential areas of environmental concern (AEC) and associated contaminants of potential concern (COPC). These included former structure footprints, soil stockpiles, undulating ground conditions and contouring surrounding Site features and contamination issues relating to Site structures and their footprints.

A total of 51 inspection locations resulting 32 sampling points for laboratory analysis. The established works included; test-pits undertaken for environmental and geotechnical investigations; sample collection and sample compositing for laboratory analysis; and selected test-pits undertaken for visual inspection across the entire Site to ensure geology and substrate consistency.

Inaccessible areas and other data gaps were presented within the report, generally summarised as consisting footprints of building and Site features, the active septic system and buried services. These areas must be assessed upon becoming accessible during any future phases of works (ie. post demolition) to determine their contamination status.

The results of the laboratory analysis indicated that the concentrations of the contaminants of concern analysed at the sampling locations were less than the adopted human criteria. The results were also generally below the ecological health assessment criteria with exception to one sampling location reporting elevated heavy metal zinc in soils; creating a risk to ecological health requiring remediation and validation. The Site was generally free from any significant or widespread aesthetically unsuitable impacts with the exception to the presence of elevated foreign debris in soils or on surfaces at multiple investigation locations requiring further management and validation.

Geotest concluded that; the Site was considered suitable for the proposed residential land uses subject to the localised remediation and validation of identified contamination, and the additional assessment of data gap areas upon becoming available (ie. existing building footprints).

The primary known contamination at the Site was elevated heavy metal zinc in soils at one location creating a localised ecological risk, and further, the presence of elevated foreign matter impacting soils and surfaces at multiple locations; Impacting on the aesthetical suitability of select soils for the future land-uses.

Geotest makes the following recommendations for remediation, validation, data gap investigation and subsequent re-development. Through implementation of these strategies, mitigation of any contamination spread, or risk should be achieved:

- Preparation of a Remedial Action Plan (RAP) to facilitate and guide the delineation, remediation and validation of identified contamination. Further incorporating the requirements of the future data gap assessment works.

[1] State Environmental Planning Policy No. 55 – Remediation of Land 1998 (SEPP55)

- Remediation of identified zinc in soils contamination area and the management of soils impacted by elevated foreign debris including delineation and validation.
- Additional inspections of materials at the Site ex-situ by an appropriately experienced contaminated lands professional to ensure consistency with the materials described within this report.
- A survey for the presence of any asbestos containing building materials in Site structures should be undertaken prior to the demolition. Any identified asbestos containing building materials should be removed by appropriately licenced asbestos contractors and a clearance undertaken in conjunction with Safework requirements prior to the demolition of the structures.
- The on-site septic systems should be pumped out and wastes lawfully managed off-site. The systems should be appropriately decommissioned including an assessment of the tank void and transpiration bed following decommissioning.
- Following the demolition and clean-up of the residential area and shed; the building footprints and demolition work areas should be inspected and validated by an appropriately experienced consultant.
- A waste classification should be prepared for any soil materials being disposed off-site in accordance with NSW EPA 2014 Waste Classification Guidelines Part 1.

Further, in the event that any contaminating materials or other un-expected finds (ie. burial pits, irrigation pipes, etc) are identified during re-development, an appropriately experienced consultant should be engaged to attend Site. The works should cease immediately in the area of the discovery.

This report should be read in conjunction with its limitations presented in Section 13 of this report.

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1 INTRODUCTION

This report presents the results of a combined Preliminary and Detailed Site Investigation undertaken by Geotest Services Pty Ltd (Geotest) at the Site. This report was commissioned to address development and planning requirements under SEPP55[2], requiring contamination to be a consideration for the development application process. The Site is proposed for future low-density residential re-development and land uses.

The Site is legally identified to comprise Lot 3 in DP249675, also identified as 9 Palaran Avenue, North Kellyville NSW 2155 *(as shown within the insert below)* –

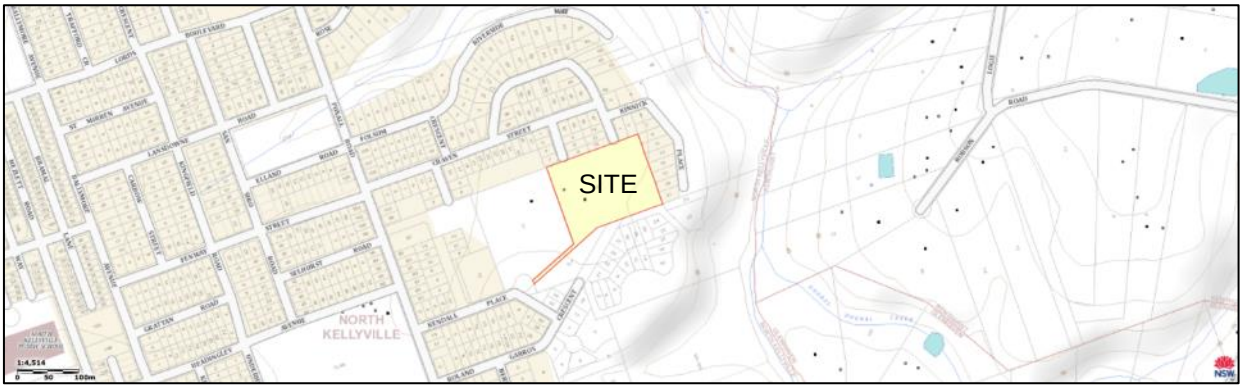


Image source: SIXMap accessed 2021, edited by Geotest.

The Site is approximately 2.03 hectares (ha), is generally rectangular in shape, and has access to Kendall Place (formerly Palaran Avenue) via an access handle to the south-west. The following geographical coordinates were obtained from the approximate centre of the Site (as measured on the NSW Department of Lands): -33.689276 S, 150.964636 E

Additional Site locality is presented in Figure 1 attached to the end of this report; a detailed layout of the Site and its features is included on Figure 2.

1.1 Objectives

The objective of this investigation was to:

- Assess for the likelihood of contamination existing on the Site.
- Characterise Site soils to identify the nature and degree of contamination and any areas requiring remediation based on representative sampling.
- Conclude whether the Site would be suitable for the proposed future low-density residential land uses.

1.2 Scope of Works

To achieve the objectives, Geotest undertook the following scope of works;

- Review of available geology, hydrogeology and topographical maps.
- Review of historical aerial photographs.
- Land title ownership record searches.
- NSW EPA contaminated land register search.
- NSW EPA POEO register search.
- NSW Office of Water registered groundwater bore search (500m radius of the Site).
- Obtain and review the Section 10.7(2) planning certificate from The Hills Shire Council.
- Site inspection, cable location and walkover to observe current Site conditions and surrounding land uses.
- Review of preliminary findings.

[2] State Environmental Planning Policy No. 55 – Remediation of Land 1998 (SEPP55)

- Preparation of Site sampling plan - targeting areas of environmental concern.
- Site works including test pit excavation and soil sampling.
- NATA accredited laboratory analysis.
- Interpretation of data and reporting.

1.3 Regulatory Setting

The preparation of this report was made with consideration to the following documents:

- Contaminated Lands Management Act 1997 (CLM Act 1997).
- Protection of the Environment Operations Act 1997.
- State Environmental Planning Policy No. 55 – Remediation of Land 1998.
- National Environmental Protection (Assessment of Site Contamination) Measure 2013 amendment.
- NSW EPA Sampling Design Guidelines 1995.
- NSW EPA 2017, Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition), and
- NSW EPA 2020, Consultants reporting on contaminated land, Contaminated Land Guidelines.

2 REGIONAL GROUND SETTING

2.1 Regional Geology

The 1:100,000 Penrith Geological Series Sheet 9030 (Geological Survey of New South Wales, Edition 1, 1991) indicates that Middle Triassic Hawkesbury Sandstone underlies the Site locality.

The 1:100,000 Penrith Soil Landscape Series Sheet 9030 (Soil Conservation Service of NSW, 1989) indicates that the Site is located on the Blacktown Group soils. The Blacktown soil groups are described as shallow to moderately deep (<100cm) hardsetting mottled texture contrast soils, *red and brown podzolic soils (Dr3.21, Dr3.31, Db2.11, Db2.21)* on crests grading to yellow podzolic soils on lower slopes and in drainage lines. The limitations associated with this soil landscape are moderately reactive highly plastic subsoil, low soil fertility and poor soil drainage (low hydraulic permeability).

2.2 Regional Topography and Drainage

The NSW Department of Lands Spatial Information Exchange (http://imagery.maps.nsw.gov.au) together with the NearMap online elevation tool (http://maps.au.nearmap.com/) indicate that the Site lies at an elevation of between approximately 70-80 metres Australian Height Datum (AHD).

It is expected that Site surface waters would either percolate into sub-surface soils (where permeability allows) or become surface run-off and drain off-Site to the south-east. A review of nearby surface water bodies and the surrounding topography indicates that surface run-off drainage will likely flow to the south-east approximately 150m and enter Cattai Creek. Cattai Creek flows north-west before discharging into the Hawkesbury River (forming part of the Hawkesbury Nepean River catchment system).

2.3 Regional Hydrogeology

A search for registered groundwater monitoring bores within a 500m radius of the Site was undertaken using the NSW Office of Water Groundwater Bore map data (http://allwaterdata.water.nsw.gov.au/water.stm) on the 30th of July 2021. The results of the search did not identify any registered or discontinued groundwater monitoring bores within the 500m search radius. A copy of the NSW Office of Water groundwater search results map has been presented within Appendix A.

Geotest further searched the Office of Environment & Heritage eSPADE hydrogeological landscapes mapping tool[3] on the 11th of August 2021, indicating that the Site is situated within the Box Hill Hydrogeological Landscape (BHHGL). A copy of the NSW Office of Water groundwater search results map and USCHGL report have been presented within Appendix A. The USCHGL report identifies the following hydrogeological characteristics:

Characteristic:	**Information (BHHGL):**
Aquifer Type	Unconfined in unconsolidated alluvial sediments Unconfined to semi-confined in fractured rock along structures Vertical and lateral flow components Local perching above clay-rich layers (seasonal)
Hydraulic Conductivity	Low to Moderate, range: >10^{-2}-10 metres/day
Aquifer Transmissivity	Low to moderate, range: <2-100 metres^2/day
Specific Yield	Low to Moderate, range: <5-15%
Hydraulic Gradient	Gentle to Moderate, range: <10-30%
Groundwater Salinity	Saline, range: >4.8 dS/m
Depth to Water Table	Shallow to intermediate, range 0-8m

[3] https://www.environment.nsw.gov.au/eSpade2WebApp#

Typical Catchment Size	Small (<100 ha)
Scale (flow length)	Local, Flow Length: <10km (short to intermediate)
Recharge Estimate	Moderate
Residence Time	Medium (years)
Responsiveness to Change	Medium (years)

2.4 Acid Sulfate Soils

Geotest searched the NSW Government Department of Environment's online Acid Sulfate Soil (ASS) risk mapping tool via eSPADE (https://www.environment.nsw.gov.au/eSpade2WebApp). The search results indicate that the Site is situated within an area where there is a low probability of ASS and no known occurrence. Therefore, land management activities at the Site are not likely to be affected by ASS.

The Site is situated at an approximate elevation of 70-80m AHD, while the presence of acid sulphate soils is generally limited to elevations less than 10m AHD. Is it considered that ASS or potential ASS is unlikely to be present at the Site.

3 SITE HISTORY

3.1 Land Titles

A search of historical land title ownership records was carried out for the Site and included in Appendix A. A review of these records provided a source of information that may relate to potential or likely historical land use on the Site. A summary of the ownership records are presented below:

Lot 3 in DP 249675

1884 – 1922	Gentleman
1922 – 1943	Various Individuals, Widow, Solicitor and estate.
1943 – 1944	Clerk
1944 – 1953	Farmer
1953 – 1957	Waterside Worker
1957 – 1971	Farmer
1971 – 1978	Wonga Pastoral Development Co. Pty. Limited
1978 – 1995	Cleaning Contractor and Widow
1995 – Present	Morgan Family

Based on this information, all or part of the Site appears to have been held primarily by individuals with blue-collared occupations and various individuals. This information will be used to support the interpretation of areas of environmental concern (AECs) that may be present.

3.2 Section 10.7 Certificate & Zoning

A planning certificate was issued by The Hills Shire Council on the 27th of June 2021, certificate number 113322. The certificate was provided pursuant to Section 10.7 (2) of the Environmental Planning and Assessment Act 1979. With respect to matters as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation (EP&A Regulation) 2000, and arising under the Contaminated Land Management Act 1997, the certificate advises that the land to which the certificate relates (at the date when the certificate was issued):

- has not been declared to be significantly contaminated land;
- is not subject to a management order;
- is not the subject of an approved voluntary management proposal;
- is not subject to an ongoing maintenance order.
- is not the subject of a Site audit statement.

The certificate also reports in Section 2.(a) that the land is zoned as:

- Zone R2 – Low-Density Residential
- Zone E4 Environmental Living

A copy of the certificate has been presented within Appendix A of this report.

3.3 NSW EPA Contaminated Land Record

Geotest searched the NSW EPA contaminated land record information on the 30th of July 2021. The searches did not identify any contaminated land record for the Site or the properties located adjacent to the Site. Geotest further searched the NSW EPA list of notified contaminated Sites under Section 60 of the CLM Act 1997. The search was conducted on the 30th of July 2021 and resulted in a list of notified Sites published 30th of July 2021. A review of the list did not identify notified contaminated Sites to be within the subject Site's vicinity.

A copy of the NSW EPA search record is presented in Appendix A.

3.4 NSW EPA POEO Public Register Search

Geotest searched the Protection Of Environment Operations Act 1997 (POEO) records for Environment Protection licences, applications, notices, audits or pollution studies and reduction programs within the vicinity of the Site on 30th of July 2021.

The search results did not identify any records for the Site or lands within the vicinity of the Site. A copy of the NSW EPA POEO search record is presented in Appendix A.

3.5 SafeWork NSW Dangerous Goods Search

During our historical investigations, including a Site walkover, we have not identified any former use of the Site for purposes that might suggest the presence or storage of dangerous goods at the property. Typical uses indicating hazardous or dangerous goods storage generally include; petroleum service stations, repair centres or workshops, automotive dealers, light industrial and selected commercial properties.

For this reason, we have not undertaken a search of SafeWork NSW Stored Chemical Information Database for the presence of any licensed storage of dangerous goods at this time.

3.6 Search of the NSW Government PFAS Investigations Program Sites (register)

The NSW EPA is leading an investigation program to assess the legacy of PFAS use across NSW. With the assistance of the NSW PFAS Taskforce, which includes NSW Health, Department of Primary Industries, and the Office of Environment and Heritage, the NSW EPA provide impacted residents with tailored, precautionary dietary advice to help them reduce any exposure to PFAS.

As part of these investigation works, Geotest has undertaken a search for premises that are identified to comprise the scope of the investigation program, thus considered to present a risk for PFAS contamination to enter the Site from off-Site sources. The search conducted on the 30th of July 2021 did not return any results for Sites identified within the register located within a 1km search radius of the Site. Based on this, there was no information to suggest potential PFAS contaminated Sites impacting the subject Site.

As part of the Site walkover inspections (as discussed further within Section 4 of this report), there were no observed indicators of former or present PFAS storage or use at the Site or properties adjoining the Site.

3.7 Historical Photography

Geotest reviewed a selection of historical aerial photographs for the Site during the preliminary investigation works available via the NSW Government Department of Finance, Services and Innovation (NSW Gov. DoFSI), Google Earth and NearMap online imagery. Geotest makes the following comments regarding land use at the Site and surrounding the Site:

9 Palaran Avenue, North Kellyville NSW	
YEAR (image)	**SITE DESCRIPTION**
1947 (NSW Gov. DoFSI)	In the 1947 image, the Site presents as predominantly dense woodlands with a minor clearing in the south-western corner. Kendall Place and Foxall Road are formed to the west as unsealed roads. The surrounding land use generally consists of vacant pastoral lands and dense woodlands. In addition, some rural-styled residential occupancy is observed to the south and west of the Site.
1956 (NSW Gov. DoFSI)	In the 1956 image, three structures (not present today, refer 1975 image) are observed in the south-western extent of the Site. An unsealed accessway is observed connecting the Site structures to Kendall Place located to the south west of the Site. With exception to surface scarring to the north of the above-mentioned structures, the Site remains predominantly dense woodlands. The land use surrounding the Site shows a general increase in rural-styled residential dwellings and agricultural activities.
1975 (NSW Gov. DoFSI)	In the 1975 image, the previously identified structures in the 1956 image are no longer visible. The southern half of the Site has been cleared of woodlands, and part of a trail/access way encroaches the western boundary of the Site. The land use surrounding the Site shows a general increase in rural-styled residential dwellings.

1991 (NSW Gov. DoFSI)	In the 1991 image, a large structure (inferred residential dwelling, present today) is observed in the western portion of the Site. An additional structure (inferred shed, not present today - refer 2004 image) is located immediately to the north-west of the above-mentioned residential dwelling. The remainder of the Site generally appears unchanged and consists of vacant lands throughout the southern portion of the Site and dense woodlands throughout the northern portion The land surrounding the Site shows an increase in rural residential occupancy, agricultural activities and the sealing of Kendall Place.
1994 (NSW Gov. DoFSI)	In the 1994 image, the Site generally remains unchanged from the previous (1991) image. The land use surrounding the Site generally appears unchanged since the previous image
2004 (NSW Gov. DoFSI)	In the 2004 image, various changes are observed throughout the Site. The previously identified shed located to the north-west of the residential dwelling has since been removed. An additional structure (inferred shed, present today) is observed on the western boundary of the Site to the north of the residential dwelling. Two small structures (inferred sheds, present today) are observed in the north-eastern corner of the Site. A swimming pool and surrounding curtilage are observed to the east of the residential dwelling. Additional clearing of woodlands has been undertaken across the majority of the Site, with clusters of trees remaining in the northern and eastern portions of the Site. The land use surrounding the Site generally appears unchanged since the previous image
2007 (NearMap)	In the 2007 image, the Site generally remains unchanged from the previous (2004) image. This is with exception to the addition of a third structure (present today as a shipping container) located in the north-eastern corner of the Site The land use surrounding the Site generally appears unchanged since the previous image.
2015 (NearMap)	In the 2015 image, the Site generally remains unchanged from the previous (2007) image. The land use surrounding the Site generally appears unchanged since the previous image.
2019 - Current (NearMap)	In the images reviewed from 2019 to June of 2021, the Site generally remains unchanged from the previous (2015) image. During this period, the Site's surrounding land use has significantly increased in civil re-development, primarily for low-density residential occupancy occurring in all bearings.

4 SITE WALKOVER

A Site walkover was conducted on the 3rd of August 2021 by an Environmental Scientist of Geotest Services. At the time of the walkover, the weather was clear. Observations made during the walkover are presented in Sections 4.1 to 4.11.

4.1 Site Comments & Anecdotal Information

Observations made at the time of the Site walkover are presented below. Refer to Figure 2 and Appendix E (Site Photographs) for Site layout and visual log of select observations made below.

- The Site was well fenced at all boundaries.
- At the time of the inspection, the Site was utilised for rural-styled residential occupancy and the storage of domestic belongings.
- A number of structures were present at the Site; these are described as follows:
    - A single-story brick residential dwelling, within the western portion of the Site.
    - a small granny flat/cottage at the approximate centre of the western boundary.
    - Two temporary site sheds have that been joined to form what appears to be used as a residence located to the north-west of the residential dwelling.
    - Two small metal sheds are located immediately north of the swimming pool.
    - Two above-ground metal sheds are located in the north-eastern corner of the Site.
- Minor storage of belongings and debris was observed within the north-eastern corner of the Site, near to the two metal sheds. The belongings consisted of various construction materials such as metal, brick, timber and plastic. The debris were not considered to represent significant waste streams.
- A fill bund (averaging 1 metre high and 1.5 meters wide) was observed, transecting the northern boundary of the Site. The bund was predominantly vegetated with grasses and trees.
- An asphalt accessway was present in the south-western portion of the Site connecting the residential dwelling to Kendall Place.
- Two exposed in-ground concrete septic tanks was observed to the east of the residential dwelling in the approximate centre of the Site.
- The remainder of the Site was broadly described as consisting of vacant undulating paddocks with healthy grasses.
- During the Site walkover inspection, there were no observed indicators of former or present PFAS use or storage at the Site nor on properties adjoining the Site.

4.2 Site Activities

At the time of the inspection, the Site was utilised for rural-styled residential occupancy and the storage of domestic belongings.

4.3 Chemical Spills and Losses

No evidence of chemical spills, losses, or staining were observed across the Site. No anecdotal information or historical information regarding historical spills at the Site was revealed. There were no observed indicators of the former or present use of PFAS at the Site nor on properties adjoining the Site.

4.4 Underground and Above-ground Storage Tanks

Two exposed in-ground concrete septic tanks were observed to the east of the dwelling in the approximate centre of the Site. There were no other tanks, petroleum or otherwise, identified present at the Site during the inspection.

4.5 Waste Management

There were no areas of significant or widespread commercial or agricultural wastes observed at the Site. Some surface storage of belongings and debris was observed within the north-eastern portion of the Site; however, this material did not adversely impact the aesthetical suitability of the Site. Therefore, for the purposes of this assessment, including materials such as plastic, metals, timber, and brick that were observed in low quantities at the Site are not considered to be significant wastes requiring further assessment.

4.6 Discoloured Soils & Odours

During investigations, Geotest did not observe discolouration of soils or odours at the Site during the walkover.

4.7 Phytotoxicity

Vegetation at the Site was observed to be generally healthy with no visual indicators of stress or die-back.

4.8 Hazardous Materials

Geotest did not observe the presence of any suspected hazardous materials at the Site during the walkover inspection.

Geotest did not make an in-depth assessment of the structures at the Site; however, considering the age of the structures at the Site, there is potential for some asbestos building materials to be present in Site structures.

4.9 Fill Material

During the Site walkover, the suspected presence of fill was identified within select locations at the Site; these included:

- Surrounding Site structures to facilitate construction.
- The installation of in-ground and septic systems
- Transecting the northern boundary in the form of a fill mound; and
- Multiple areas of undulating ground conditions were observed to be different from the lay of the natural landscape.

4.10 Complaint & Incident History

No evidence of complaints or environmental incidents regarding the Site was discovered.

4.11 Surrounding Land Use

During the Site walkover, it was observed that the general land use surrounding the Site is as presented below:

Boundary	Land Use
East	Low-density residential occupancy and dense woodlands
South	Civil re-development for future low-density residential occupancy
West	Rural residential occupancy
North	Low-density residential occupancy

5 DATA RELIABILITY

During the preliminary investigation conducted at the Site Geotest sought information from the following sources:

- Land History Search.
- Department of Land and Property Information (LPI).
- DNR / DPI Acid Sulfate Maps.
- The Hills Shire Council.
- NSW Government Department of Planning, Industry and Environment.
- NSW Government PFAS investigation program resource.
- MapSales.
- NSW Government eSPADE.
- NSW OEH.
- NSW EPA Public Register.
- NSW EPA POEO Records.
- NSW Office of Water.
- Observations made in the field during the Site walkover.

Geotest considers that the data is generally representative of past and present Site conditions and observations made personally by us.

6 PRELIMINARY CONCEPTUAL SITE MODEL

A preliminary Conceptual Site Model (CSM) was prepared to understand the identified potential contamination sources at the Site based on the Preliminary Site Investigation (PSI) undertaken, the identified potential receptors at the Site, and the opportunity for pathways to exist.

6.1 Areas of Environmental Concern and Contaminants of Potential Concern

A review of the available historical data and observations made during the PSI and Site walkover indicates that while the Site is identified to present a generally rural residential history, a number of potential areas of environmental concern (AEC) exist. The identified contaminants of concern are also included below:

AEC description	Location on-Site	COPC
Footprints of former structures	4 x former small structure footprints: • Three former structures located in the south-western portion of the Site. • One former structure located to the north-west of the existing residential dwelling.	Metals (8), asbestos and foreign debris. If fill present, additionally consider PAH, TRH, BTEX, OCP, PCB.
Fill materials	As contouring surrounding residential area, within footprints of former structures, undulations against the natural lay of the land and in the form of a fill bund transecting the northern boundary, east to west.	Metals (8), PAH, TRH, BTEX, OCP, PCB, asbestos, elevated foreign debris (if fill present)
Footprints of existing structures including septic tank	Brick residential dwelling, multiple transportable style sheds, and two metal sheds located immediately north of the swimming pool.	Footprints: Metals (8), PAH, TRH, BTEX, OCP, PCB, asbestos, elevated foreign debris (noting former structures within footprints). Septic: Biological contaminants, heavy metals, hydrocarbons and pesticides
Potential asbestos building materials in Site structures	Site structures	Asbestos in building materials
General surface-stored debris	Collections within the north-eastern portion of the Site	Aesthetics

6.2 Land Use Scenario and Receptors

Geotest understands the future use of the lands includes the civil re-development and subdivision of the Site for low-density residential uses with access to soils. Geotest considers that the potential future receptors at the Site may include workers, residential occupants, visitors (during construction and future Site occupation) and ecological ecosystems.

6.3 Exposure Pathways

6.3.1 Human Health – Direct Contact

Information revealed during the preliminary Site investigation (PSI) indicates the potential for contaminants in soils which may present a direct exposure risk through dermal contact, inhalation of dust particles and ingestion. Based on the future proposed land uses, there is a likelihood for a completed exposure pathway given the opportunity for exposure to soils.

6.3.2 Human Health – Asbestos

Information revealed during the PSI indicates the potential presence of asbestos at the Site. Asbestos may present a direct exposure risk through inhalation of potentially airborne asbestos fibres. Based on the future proposed land uses including the civil re-development (disturbances of ground) and future opportunity for exposure to soils during occupancy, Geotest considers that there is a likelihood for a completed exposure pathway from asbestos in soils, which should be investigated.

6.3.3 Human Health – Volatilisation

Information revealed during the PSI indicates the potential for contaminants in soils, presenting a minor risk of volatilisation for inhalation. Based on the identified CoPC for the relevant AECs, it is considered that there is a (low) likelihood for a completed pathway which should be investigated.

6.3.4 Human Health – Aesthetics

Information revealed during the PSI indicates the potential presence of aesthetical risks in the form of potential elevated debris within fill soils from an unknown source. Based on the future proposed land uses including sensitive land use such as standard residential with garden/accessible soils, it is considered that an exposure pathway may be completed.

6.3.5 Human and Ecological Health – Groundwater

Based on the information revealed during the PSI, no current or future expected use of groundwater at the Site has been identified. There were no significant potential sources of groundwater contamination at or within the vicinity of the Site. The identified soil landscape at the Site with inferred moderate plasticity, considered to have low permeability (as identified within Section 2) is likely to prevent the identified CoPC from mobilising via penetrating to groundwater. Further, there were no identified uses of, or interaction with groundwater at the Site.

It is therefore considered unlikely that a completed pathway may occur in regard to human or ecological interaction with groundwater at the Site.

6.3.6 Ecological – Terrestrial Ecosystems

Based on the information revealed during the PSI, the majority of the Site was observed to be occupied by healthy vegetation with no indicators of widespread stress or die-back.

The future use of the lands for residential occupancy is expected to include landscaped areas (domestic and council areas i.e. verge). Therefore, it is considered that plant absorption of identified CoPC may be possible. There is a (low) likelihood for a completed pathway for terrestrial ecosystems.

7 DATA QUALITY OBJECTIVES

The NSW EPA 2017[4] indicates that the purpose of the Data Quality Objective (DQO) process is used to define the type, quantity and quality of the data required to support environmental decisions relating to the condition of the Site. The DQOs follow a seven-step process, systematically defining the scope of the investigation program. Details of the proposed process to be implemented at the Site are given in the following sections.

7.1 Step 1 – State the Problem

The assessment needs to address whether previously identified land uses (on and within an influential vicinity of the Site) have affected the Site's suitability for future proposed low density residential land uses and whether contamination within the soil presents an unacceptable risk to the Site identified receptors.

7.2 Step 2 – Identify the Decisions

The decisions that need to be made during this project include:

- Do the CoPCs at the AECs identified within the CSM exist at concentrations that present an unacceptable risk to the future land use setting and receptors?
- What data is required to assess if the Site is suitable, from a contamination perspective, for the future land use setting?

7.3 Step 3 – Identify the Inputs to the Decision

The primary inputs in assessing the presence of contamination on the Site are from:

- The identified Site history.
- Information obtained during the visual inspections.
- The results of the proposed intrusive inspection, sampling and analysis.
- Comparison of the results against the adopted criteria.

7.4 Step 4 – Define the Study Boundaries

The spatial boundary of the PSI is the registered lot commonly referred to as 9 Palaran Avenue, North Kellyville NSW, occupying 2.03 ha. The study boundary includes any immediately off-Site potential contamination sources that may impact the Site's suitability for the proposed future land uses.

The spatial boundaries of the DSI are the identified AECs on the Site requiring assessment and characterisation. The vertical boundary of the Site with regard to the AECs is the depth of any potentially contaminated materials.

The defined constraints on the boundaries of the investigation are subject to the:

- Areas occupied by Site structures, hardstand access ways, stored belongings, and limited access (estimated at 0.33 ha based on measurements obtained via https://maps.six.nsw.gov.au/).
- The administrative boundaries by means of budgetary constraints in conjunction to the engaged services proposal agreement between Geotest and the Client.
- Any impacts to the Site which may occur between the time of the investigation and the proposed re-development works (temporal boundary).

[4] NSW EPA Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition) 2017

7.5 Step 5 – Develop a Decision Rule

The project decision rules must consider whether the investigation outcomes are considered appropriate for the decision on land use suitability. Therefore, to ensure appropriate investigation the following questions should be satisfied:

Question	Suggested Practices
Have the CoPC been addressed? Have the AECs been appropriately sampled?	Understanding of CoPC, sufficient sampling frequencies in general accordance with industry practice and contaminant distribution, effective grid or targeted sampling approach, appropriate field methods.
Have appropriate field techniques been utilised?	Disposable sampling consumables, adequate Site records, photographic evidence, competent – consistent persons
Have the samples been appropriately handled?	Laboratory supplied storage, correct preservation and storage, CoC conditions, satisfied sample holding times
Has sufficient QAQC been conducted?	In-field blind duplicates (intra/inter), NATA accredited analytical laboratories, assessment of laboratory QAQC information, reliability and accuracy assessment
Have the appropriate investigation criteria been identified?	Determine the most appropriate assessment criteria based on relevant and current regulatory guidance, with respect the to the proposed future land use setting

Should the investigation satisfy these conditions, the investigator may rely upon the information to assess the decisions.

Should the outcomes of the decision identify concentrations of contaminants exceeding the adopted assessment thresholds, the decision should be made with regard to further assessment, management and/or remediation.

7.6 Step 6 – Specify Limits in the Decision Errors

Step 6 of the DQO process takes an approach to uncertainty, incorporating the concepts of a null hypothesis; the false rejection (of the null hypothesis, Type I) and false acceptance (of the null hypothesis, Type II) errors. Whereby:

- Contamination exposure risks are considered to be acceptable, when they are not.
- Contamination exposure risks are considered to be not acceptable, when they are.

Minimising decision errors can be mitigated by the correct implementation of the decision rules. The decision rules for this assessment have been evaluated with reference to the key themes of the Precision, Accuracy, Representativeness, Comparability, Completeness (PARCC) assessment process presented below:

Quality Theme	Relevant Decision Error Rule Indicator
Precision	Accurate methods followed, duplicate and triplicate information received, acceptable Relative Percent Differences (RPDs), appropriate QAQC including additional controls (ie. spike/blank) for selected CoPCs, wash blanks for any re-usable sampling tools
Accuracy	Un-biased sampling, relevant or required accreditation, industry recognition, experience and qualification
Representativeness	Field and laboratory accuracy, in accordance with CSM and Site sampling plans, type of sample media suitable for the data interpretation
Comparability	Same methods used for sample collection during works, consistent consultant/ sampler, consistent sample volumes

Completeness	All critical contamination areas addressed, samples collected and appropriately analysed, experienced personnel with adequate documentation

Where a quality theme indicator is not achieved, the consultant may consider whether the data can be considered suitable for the assessment.

7.7 Step 7 – Optimising the Design for Obtaining Data

The following considerations have been made as part of the decision-making processes employed in order to gain reliable information to assess the decisions of the investigation.

7.7.1 Sampling Point Density

With consideration to the Site occupying approximately 2.03ha, the NSW EPA 1995[5] Table A indicates that for an area of 2.03ha, a minimum of 30 sampling points is recommended for Site characterisation (applicable to Sites of ≥2.0 ha to ≤2.5 ha).

7.7.2 Field Investigation Methodology and Sample Collection

Fieldworks for inspection and sampling, undertaken with the aid of an excavator with general purpose bucket to excavate test pit inspection locations at the direction of the field manager. Test pit inspections will be logged, and a sufficient photographic log recorded.

Soil samples will be collected from the target depth under the supervision of the field manager using a clean pair of disposable gloves for each sample. Any re-usable equipment is to be decontaminated prior to use and following each use using Decon 90 and potable water to clean and rinse.

Samples may be collected directly from the excavator bucket, decontaminated hand tool or excavations where soils targeted for sampling have not been in contact with the excavator bucket directly, in this regard the method of breaking open soil bodies with clean gloves in order to obtain samples will be employed.

7.7.3 Field and Laboratory Quality

The following field and laboratory quality measures shall be implemented in order to mitigate the risk of obtaining insufficient or unreliable field or/and laboratory data:

- All field works to be supervised by an appropriately experienced environmental consultant with appropriate experience in contaminated lands assessment.
- Field equipment decontamination procedure should be implemented where applicable, otherwise, appropriate disposable sampling equipment used.
- A laboratory-prepared volatile (BTEX/TRH C_6-C_{10}) Trip spike and Trip blank should be taken into the field and stored with the samples.
- Sampling should be undertaken in general accordance with the proposed sampling plan, using the appropriate sampling containers, including any preservation considerations.
- Samples should be clearly labelled to indicate with clarity the source, location (i.e. project and sampling location), depth and date.
- Sample storage should be adequate in order to chill the collected samples in the field and during storage until they have been received at the engaged laboratory.
- Intra laboratory duplicate samples collected a frequency of ≥5%.
- Inter laboratory duplicate samples collected at a frequency of ≥5%.

[5] NSW EPA, Sampling Design Guidelines 1995

- The primary and secondary laboratories selected should be NATA accredited laboratories suitable to undertake the environmental analysis scheduled.
- Samples should be extracted and analysed within their applicable holding times for each analyte.

The environmental consultant will assess the significance of any variation to the field and laboratory quality expectation and consider whether the project DQO's can still be addressed. If not, then further sampling and/or analysis may be required.

8 SITE ASSESSMENT CRITERIA

The criteria for this assessment was developed in accordance with the following guidelines approved or published by the NSW EPA under Section 105 of the Contaminated Land Management Act, 1997:

- NEPM' National Environmental Protection (Assessment of Site Contamination) Measure 1999 (April 2013), incorporating CRC Care 2011.
- NSW DEC 2005, Contaminated Sites: Guidelines for Assessing Former Orchards and Market Gardens', ISBN 1 74137 019 1, Department of Environment and Conservations NSW.
    - Refer Section 10.1.2 for further detail on the adjustment of investigation levels for sampling undertaken with reference to these criteria.
- NSW EPA 2017, 'Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)' ISBN 978 1 928088 23 8, Environmental Protection Authority NSW.
- NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines', ISBN 0 7310 3780 1.
- NSW EPA 2020, 'Contaminated Land Guidelines: Consultants Reporting on Contaminated Land', ISBN 978 1 925987 88 1, NSW EPA.

A discussion on the adoption of criteria is presented in the following sections.

8.1 Soils

The Site is identified to be proposed for future low-density residential land uses. The following human health-based criteria have been considered appropriate and adopted for soil:

- Health Investigation Levels (HIL) for residential with garden/accessible soils (NEPM 2013).
- Health Screening Levels (HSL) for low – high density residential, selecting conservative soil texture of sand and depth of 0m to <1m below ground surface level (NEPM 2013).
- Health-based screening levels for direct contact in a low-density residential setting (HSL-A) (CRC Care 2011).

The tables below provide a summary of concentrations adopted for assessing human health risks. The tables have been adopted directly from the guidance documentation and represented by Geotest below:

NEPM 2013 Table – '*Table 1A(1) Health Investigation Levels for Soil Contaminants (mg/kg)*'

Chemical	Health-based Investigation Levels (mg/kg)
	Residential[1] A
Metals and Inorganics	
Arsenic [2]	100
Beryllium	60
Boron	4500
Cadmium	20
Chromium (VI)	100
Cobalt	100
Copper	6000
Lead	300
Manganese	3800
Mercury (Inorganic) [5]	40
Methyl mercury [4]	10
Nickel	400
Selenium	200
Zinc	7400
Cyanide (free)	250

Polycyclic Aromatic Hydrocarbons (PAHs)	
Carcinogenic PAHs (as Be TEQ) [6]	3
Total PAHs [7]	300
Phenols	
Phenol	3000
Pentachlorophenol	100
Cresols	400
Organochlorine Pesticides	
DDT + DDE + DDD	240
Aldrin & Dieldrin	6
Chlordane	50
Endosulfan	270
Endrin	10
Heptachlor	6
HCB	10
Methoxychlor	300
Mirex	10
Toxaphene	20
Herbicides	
2,4,5-T	600
2,4-D	900
MCPA	600
MCPB	600
Mecoprob	600
Picloram	4500
Other Pesticides	
Atrazine	320
Chlorpyrifos	160
Bifenthrin	600
Other Organics	
PCBs [8]	1
PBDE Flame Retardants	1

Notes adopted from NEPM 2013:

(1) Generic land uses are described in detail in Schedule B7 Section 3
HIL A – Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry),
Also includes childcare centres, preschools and primary schools.

(2) Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate (refer Schedule B7).

(3) Lead: HIL is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.

(4) Methyl mercury: assessment of methyl mercury should only occur where there is evidence of its potential source. It may be associated with inorganic mercury and anerobic microorganism activity in aquatic environments. In addition, the reliability and quality of sampling/analysis should be considered.

(5) Elemental mercury: HIL does not address elemental mercury. A Site-specific assessment should be considered if elemental mercury is present, or suspected to be present,

(6) Carcinogenic PAHs; HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.

(7) Total PAHs: HIL is based on the sum of the 16 PAHs most commonly reported for contaminated Sites (WHO 1998). The application of the total PAH HIL should consider the presence of carcinogenic PAHs and naphthalene (the most volatile PAH). Carcinogenic PAHs reported in the total PAHs should meet the B(a)P TEQ HIL. Naphthalene reported in the total PAHs should meet the relevant HSL.

(8) PCBs: HIL relates to non-dioxin-like PCBs only. Where a PCB source is known, or suspected, to be present at a Site, a Site-specific assessment of exposure to all PCBs (including dioxin-like PCBs) should be undertaken.

NEPM 2013 Table – '*Table 1A (3) Soil HSLs for vapour intrusion (mg/kg)*'

	HSL A & HSL B Low- high density residential
CHEMICAL	**0m to <1m**
Sand	
Toluene	160
Ethylbenzene	55
Xylenes	40
Naphthalene	3
Benzene	0.5
F1 (9)	45
F2 (10)	110

Notes adopted from the NEPM 2013:

(1) Land use settings are equivalent to those described in table 1A(1) Footnote 1 and Schedule B7. HSLs for vapour intrusion for high density residential assume residential occupation of the ground floor. If communal car parks or commercial properties occupy the ground floor, HSL D should be used.
(2) The key limitations of the HSLs should be referred to prior to application and are presented in Friebel and Nadebaum (2011b and 2011d.
(3) Detailed assumptions in the derivation of the HSLs and information on how to apply HSLs are presented in Friebel and Nadebaum (2011a and 2011b).
(4) Soil HSLs for vapour inhalation incorporate an adjustment factor of 10 applied to the vapour phase partitioning to reflect the differences observed between theoretical estimates of soil vapour partitioning and field measurements. Refer Friebel & Nadebaum (2011a) for further information.
(5) The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario. For the scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or' NL'.
(6) The HSLs for TPH C_6-C_{10} in sandy soil are based on finite source that depletes in less than seven years, and therefore consideration has been given to use of sub-chronic toxicity values. The >C_8-C_{10} aliphatic toxicity has been adjusted to represent sub-chronic exposure, resulting in higher HSLs than if based on chronic toxicity. For further information refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
(7) The figures in the above table may be multiplied by a factor to account for biodegradation of vapour. A factor of 10 may apply for source depths from 2 m to <4 m or a factor of 100 for source depths of 4 m and deeper. To apply the attenuation factor for vapour degradation, a number of conditions must be satisfied. Firstly the maximum length of the shorter side of the concrete slab and surrounding pavement cannot exceed 15 m, as this would prevent oxygen penetrating to the center of the slab. Secondly, measurement of oxygen in the subsurface is required to determine the potential for biodegradation. Oxygen must be confirmed to be present at >5% to use these factors.
(8) For soil texture classification undertaken in accord with AS 1726, the classification of sand, silt and clay may be applied as coarse, fine with liquid limit <50% and fine with liquid limit >50% respectively, as the underlying properties to develop the HSLs may reasonably be selected to be similar. Where there is uncertainty, either a conservative approach may be adopted or laboratory analysis should be carried out.
(9) To obtain F1 subtract the sum of BTEX concentrations from the C_{10}-C_{16} fraction.
(10) To obtain F2 subtract naphthalene from the >C_{10}-C_{16}.

CRC CARE 2011 Table – '*Table 4 SOIL HEALTH SCREENING LEVELS FOR DIRECT CONTACT (mg/kg)*'

CHEMICAL	HSL-A Residential (Low Density)
Toluene	14000
Ethylbenzene	4500
Xylenes	12000
Naphthalene	1400
Benzene	100
C6-C10	4400
>C10-C16	3300
>C16-C34	4500
>C34-40	6300

The NEPM 2013 amendment provides guidance on the asbestos assessment criterion to be considered for standard residential land uses with garden accessible soils. NEPM 2013 guidance is adopted as consideration for the asbestos criterion at the Site:

NEPM 2013 Table – '*Table 7. Health screening levels for asbestos contamination in soil*'

Health Screening Levels (W/W)	
Form of Asbestos	**Residential A** [1]
Bonded ACM	0.01%
FA & AF [5] **(friable asbestos)**	0.001%
All forms of asbestos	No visible asbestos for surface soil

Notes:

1. Residential A with garden/accessible soil also includes children's day care centres, preschools and primary schools.
2. The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.

The above asbestos acceptance criteria may be adopted for the Site. For the purposes of this assessment however, Geotest has generally adopted an "Absence/Presence" criteria as most conservative.

8.1.1 Aesthetic Considerations

Management of the aesthetic limits must also be considered for a soils' suitability for the proposed residential land uses. Whilst there are no specific numeric guidelines for assessing aesthetic suitability a balanced approach should be taken. In the case of this Site, is it proposed for standard residential land uses with garden accessible soils and as such we propose an appropriate expectation of soil quality is applied. General assessment of the soil aesthetic considerations must be made and should include:

- Chemically discoloured soils (such as hydrocarbon staining) or large quantities of inert refuse, particularly unsightly, may cause ongoing concern to Site users.
- Depth of materials, including chemical residues, in relation to the final surface of the Site.
- The need for and practicality of, any long-term management of foreign material.

Additional caution must be exercised when assessing sensitive land uses. We have included an example of aesthetically un-suitable soils below; **this aesthetically unsuitable image has been sourced from an un-related Site to the Site and /or area subject to this assessment**:

GENERIC example of fill soils considered aesthetically **unsuitable**	**GENERIC example** of fill soils considered aesthetically **suitable**
	

This example (above left) showing a high % concrete rubble which renders these soils aesthetically un-suitable – requiring treatment prior to consideration for re-use.

For the purposes of assessing aesthetical suitability in relation to the visual presence of anthropogenic foreign debris (non-hazardous) in soils, Geotest considered soil material visually estimated to contain ≥1% foreign matter to be elevated and warrant management for aesthetical limits.

Geotest considers this approach and threshold to be appropriately conservative, noting the NSW EPA 2014 ENM[6] provides guidance for an acceptable concentration of materials considered anthropogenic foreign debris to be up to 2%. Thus Geotest' approach proves conservative and within NSW EPA aesthetical soil quality expectations.

Physical and Aesthetic 'management limits' for petroleum hydrocarbon compounds:

Schedule B1 of the NEPM 2013 discusses adverse effects of TPH contamination. The effects include free phase formation, fire and explosive hazards, effects on buried infrastructure and aesthetic considerations leading to 'management limits' for these conditions. The values presented in the table below provide interim screening levels as Tier 1 guidance for residual petroleum hydrocarbon contamination. For the purpose of this assessment, Geotest has adopted 'Coarse' grained soils relating to management limits.

NEPM 2013 Table – *Table 1 B(7) 'Management Limits for TPH fractions F1-F4'*

TPH Fraction	Management limits[1] (mg/kg dry soil)
	Residential, parkland and Public Open Space
F1 C6-C10	700
F2 >C10-C16	1,000
F3 >C16-C34	2,500
F4 >C34	10,000

1 Management limits are applied after consideration of relevant ESLs and HSLs.

8.1.2 Ecological Environments

The NEPM 2013 provides a pragmatic and Site-specific approach for EILs, considering a range of different soil characteristics – opposed to a single type.

During the investigation works, Geotest carefully selected an area that presented the most limited recent activity and identified by Geotest to be representative of the natural Site soil conditions. This sample was collected from test pit inspection location TP19 and labelled SSEIL. The sample was scheduled for analysis for the following physiochemical attributes:

- Organic Carbon Content (OCC);
- Cation Exchange Capacity (CEC);
- Potential Hydrogen (pH); and
- Clay content.

Further, the sample was analysed for selected metals (Cu, Cr, Ni and Zn) to ascertain appropriate adopted background ranges from residual clays.

Site specific EILs have been developed for selected metals substances, and generic EILs have been adopted for selected metal and organic substances. These have been presented within Table 8.1.3 below and within LT1 and are applicable for assessing risk to terrestrial ecosystems and generally apply to soils within the top 2.0m of soil profile, they are dependent on specific soil physicochemical properties.

For the purposes of this investigation, and with exception for Site specific values for Chromium, Copper, Nickel, Zinc; Geotest has adopted NEPM 2013 Schedule B5a Table A1, Column for 'urban residential / public open spaces' (aged, upper value) as the Site soil terrestrial EILs as presented on Geotest laboratory table LT1.

Table 8.1.3: Ecological Investigation Levels (EIL) in mg/kg

Analyte		EIL	Comments
Metals	Arsenic	100	Adopted pH of 6.4, CEC of 6 cmolc/kg; clay content 8%,
	Copper	150	
	Nickel	55	
	Chromium III	400	

[6] NSW EPA 2014 Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014; The excavated natural material order 2014.

	Lead	1,100	adopted Organic Carbon Content 0.6%
	Zinc	270	
PAH	**Naphthalene**	170	
OCP	**DDT**	180	

NEPM 2013 also provides Ecological Screening Levels (ESLs), which generally apply to the top 2.0m of the future soil profile. The ESLs are specific to the intended land use and soil type; defined as coarse or fine grained. As a conservative approach, Geotest has adopted 'coarse' grained soils for all compounds listed below (within Table 1B(6)), this is with exception to xylenes, where again a conservative approach is adopted. As such, 'fine' grained soils as most conservative for xylenes and has been adopted for this investigation and where Soil texture 'coarse/fine' is adopted for F1 and F2. Table 1B(6) has been presented below:

NEPM 2013 - *TABLE 1B(6) ESLs for TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil*

CHEMICAL	**Soil texture**	**ESLs (mg/kg dry soil)**
		Urban residential and public open spaces
F1 C_6-C_{10}	*Coarse/*	180*
F2 >C_{10}-C_{16}	*Fine*	120*
F3 >C_{16}-C_{34}	*Coarse*	300
F4 >C_{34}-C_{40}	*Coarse*	2800
Benzene	*Coarse*	50
Toluene	*Coarse*	85
Ethylbenzene	*Coarse*	70
Xylenes	*Fine*	45
Benzo(a)Pyrene	*Coarse*	0.7

Notes:

(1) ESLs are of low reliability except where indicated by * which indicates that the ESL is of moderate reliability.
(2) '-'indicates that insufficient data was available to derive a value.
(3) To Obtain F1, subtract the sum of BTEX concentrations from C_6-C_{10} fraction and subtract naphthalene from >$C_{10}C_{16}$ to obtain F2.

9 FIELDWORK

9.1 Sampling Density & Activity

NSW EPA (1995) provides guidance for sampling densities for Site characterisation. NSW EPA (1995) also recommends the Site is judgementally interpreted based on geological and geographical features, nature of the contamination, former usage patterns, and the intended future use of the Site. Based on the Site history and current Site features, it was considered that both a grid and target-based sampling pattern would be appropriate to assess the AECs identified for this Site.

Field works for intrusive inspection and sampling were undertaken on the 3rd of August 2021. The works were undertaken with the aid of a 5-tonne excavator with general-purpose bucket and a hand auger for select locations to excavate test pit inspection locations at the direction of the field manager. All sampling points were georeferenced using a handheld Garmin GPS.

The following inspection and sampling densities were achieved during the works:

- A total of 51 individual investigation locations were established during the on-Site assessment, comprising:
    - Test-pits undertaken for environmental investigations.
    - Selected test-pits undertaken for visual inspection across the entire Site to ensure geology and substrate consistency. This further improves the confidence for the on-Site identification of any previously unidentified fill.
    - 3 observation locations for visual assessment of surface stored belongings.

A total of 48 intrusive inspection locations were established during the works. Utilising NSW EPA 1995, Procedure F, and adopting 10m test pit spacing, it is calculated that the density of 48 inspection locations represents a circular visual hot spot detection of 5.9 metres for locating foreign matter. Therefore, it is calculated that the Site should be generally free from circular visual hot spots of foreign matter larger than a 6m radius with a 95% confidence level. This is based on adoption and application of the NSW EPA 1995 Procedure F and assumption for a generally even distribution of foreign matter in fill soils.

Within the comprised assessment area of 2.03 ha (or available 2.0 ha when subtracting 0.3 ha for areas inaccessible due to existing Site features as per Section 7.4), Geotest analysed 30 chemical sampling points and a further 2 samples analysed for asbestos only analysis. Utilising NSW EPA 1995, Procedure F, and adopting 15m spacing; it is calculated that the density of chemical analysis represents a circular contamination hot spot detection of 8.8 metres. Therefore, the Site should be free from circular contamination hot spots larger than a 9m radius with a 95% confidence level.

Samples were collected from within the excavator bucket/hand auger or from natural soils in the test-pit profile where possible. Suitably experienced environmental consultants from Geotest logged test pits. Test pits were terminated following confirmation of investigation or discovery of natural soils.

Soil samples were placed into laboratory supplied glass jars with Teflon lined seals to limit volatile loss and plastic zip locked bags. The samples were and placed into an ice-brick chilled cooler. The samples were dispatched to NATA accredited laboratories under chain of custody protocols. Copies of the chain of custody are provided in Appendix C.

9.2 Areas Not Investigated

Due to the ongoing use of the Site for residential occupancy, a number of areas were not able to be investigated during the intrusive field test pit program. The areas that could not be investigated are as follows; areas surrouding:

1. The residential area (brick dwelling) in the western portion of the Site including building footprints, hardstands and domestic gardens.
2. The second residential dwelling (granny flat/cottage) located to the north-west of the residential dwelling.
3. The two metal structures located in the north-eastern corner of the Site.
4. The pool-sheds to the north-east of the residential dwelling.
5. Areas identified by Geotest and/or occupant as the potential location of on-Site services (ie. septic, water alignments and underground power).

Due to this inaccessibility, it is unknown if these areas will impact the contamination status of the Site, and as such, these areas are presented as data gap areas requiring future investigation within Section 13.1 of this report.

9.3 Laboratory Analysis

Samples were submitted to Eurofins Lane Cove, laboratory report reference # 814485 & 814513.

10 FIELD AND LABORATORY DATA RELIABILITY

10.1 Fieldwork

10.1.1 Sampling

Sampling was undertaken in general accordance with Geotest procedures, which are based on industry practice. Sampling was conducted by qualified and experienced contaminated land professionals from Geotest Services; Jacob Barnes and Alan Halpin. During the works, no re-usable sampling tools were used for sample collection. However, decontaminated equipment was retained on-Site during the works to ensure availability if required. Decontamination procedures can be briefly described as rinse and cleaning of any re-suable equipment between every sampling location (or use) using phosphorus free *Decon 90* and potable town water. Geotest procedures mean only disposable sampling equipment is used, therefore eliminating the risk for cross contamination.

10.1.2 Field Duplicates

Selected samples were split in the field and placed in separate sets of sample containers. The primary and duplicate samples were sent to the primary laboratory. A second blind duplicate was then forwarded by the primary laboratory to a secondary laboratory for analysis. The analysis of field duplicate samples provides an assessment of the precision of the sampling and laboratory analytical procedures. The following field duplicates were collected:

Parent Sample ID	Duplicate ID: intra / inter
TP2 0.2-0.3	DUP1 / DUP1A
TP25 0.1-0.2	DUP2 / DUP2A

As part of these works, Geotest analysed 32 individual samples. 2 samples were specifically for asbestos which results a total of 30 chemical samples analysed. The above duplicate/triplicate frequency represents a duplicate (%) to primary chemical analysis frequency (excluding asbestos analysis) of 6.6% (intra) and 6.6% (inter) with an overall duplicate frequency of 13%. This frequency exceeds the minimum frequency requirements for duplicate analysis identified within the investigation DQO of 10% minimum.

In accordance with the NEPM 2013, only values where the reported results are greater than 10 times the laboratory LOR are required to be considered as part of the relative percentage difference (RPD) calculations between the parent and duplicate samples. This is generally due to low numerical values providing an inflated representation of RPD upon calculation.

Of the samples scheduled for analysis, the following samples/ analyte reported a relative percentage difference (RPD) between the parent and duplicate sample analysed for soils outside the accepted +/- 50% RPD threshold limit, where analytes were >10 times the LOR of the primary laboratory:

Primary Sample	Duplicate Sample	Analyte	RPD %	Prim / Dup result (mg/kg)	Laboratory Limit of Reporting (limit of detection)
TP25 0.1-0.2m	DUP2	Arsenic	140	10 / 57	2
TP25 0.1-0.2m	DUP2	Zinc	61	130 / 69	5
TP25 0.1-0.2m	DUP2A	Zinc	182	130 / 6	5

Geotest makes the following comments relating to the RPDs:

- The RPD anomalies are likely to be attributed to the expected heterogeneity of soils being samples, due to the source of the matrix generally being historically disturbed soil profile and the uneven distribution of contaminates within a disturbed soil matrix.
- Generally low numerical values can often provide an inflated representation of RPD upon calculation, even when ≥10 times the LOR. The highest result was marginally >10 times LOR.
- Geotest notes that the primary sample reported the highest concentration of the specific chemical in the samples.
- Geotest further notes that no values were reported to exceed the adopted assessment criteria.

Therefore, Geotest considers the RPD exceedances are not expected to affect data reliability.

All other RPDs were within the acceptable threshold limits. All RPD calculations are presented in Table LT2.

10.1.3 Field Photo Ionization Detector (PID)

A field PID was not part of the scope of works for this investigation. Geotest made observations of potential volatile contamination based on visual and olfactory indicators.

10.1.4 Wash Blanks

Only disposable consumables were used for sample handling during this investigation therefore eliminating the potential for cross contamination. A wash blank did not form part of the scope for this investigation.

10.1.5 Trip Spike & Blank

A laboratory prepared volatile organic compound (VOC, i.e. C_6-C_{10}) and BTEX soil 'spike' vial and a soil 'blank' vial was taken into the field with Geotest consultants during sampling. The vials were kept in the same cooled box where samples were stored. The analysis of the spike provides indication as to the effectiveness of field and transport sample preservation methods.

The trip spike reported all values between the acceptable 70-130 % recovery (inclusive) range, while the trip blank reported no detection at the laboratory practical quantification limit; therefore, demonstrating that the field and transport preservation methods were appropriate.

10.1.6 Sample Preservation and Storage

Sample storage and preservation is presented in the table below:

Analyte	Sample Volume and Container	Preservative	Storage
Organics/ inorganics (soil)	250ml glass & Teflon lined lid	Nil	Insulated container with ice
Asbestos	Sealed plastic zip lock bag	Nil	With the samples above

The sample containers were stored in ice-chilled containers during field works and cold storage following return to Geotest main laboratory. Upon scheduling, samples were kept cool with ice bricks and transported to the NATA accredited analytical laboratory with the Chain of Custody (COC) form, recording the following information:

- Project reference;
- Date of sampling;
- Sample identification;
- Matrix and container details;
- Preservation method;
- Name of sampler;
- Required analysis;
- Turnaround times required; and
- Signatures of sender and receiving laboratory.

A copy of the COC was kept in the project file (refer Appendix B). Samples were transported to the laboratory with sufficient time to perform analysis within the applicable holding period.

10.2 Laboratory Data

An assessment of laboratory data quality was undertaken. The following laboratory reports were prepared for this project:

Laboratory	Primary	Secondary
Report Identification	814485	814513

The results of this assessment indicated the following:

- Laboratory analysis of samples was undertaken by NATA accredited environmental testing laboratories;
- Samples were extracted and analysed within holding times;
- The laboratory QAQC data was reviewed and is considered to be satisfactory for the investigation;
- Limits of reporting (LOR) were below the adopted assessment criteria.

10.3 Reported Data Quality Assessment

10.3.1 Precision

Accurate methods were followed, duplicate and triplicate information was received, QAQC considered appropriate, wash blanks were not required due to the absence of any re-usable sampling tools.

10.3.2 Accuracy

A combination of systematic and judgemental sampling was undertaken within AEC areas. Accredited laboratories engaged, qualified and experienced personnel, industry recognised field assessment practices implemented.

10.3.3 Representativeness

Sampling collected from appropriately representative locations within AECs and considerations to the CSM, laboratory QAQC outcomes suitable for the assessment purpose, sampling and analysis undertaken on appropriate media.

10.3.4 Comparability

Consistent field personnel and techniques adopted, laboratory methods conducted in conjunction with relevant industry standards including internal QAQC protocols.

10.3.5 Completeness

All accessible AECs suitably assessed and scheduled for analysis for the relevant CoPC by personnel with adequate experience and documentation.

10.3.6 Data Quality Conclusion

Based on our data quality evaluation including third-party historical data, field data and laboratory data; we consider the data to be suitable for the purposes of this investigation. The data was analysed to be satisfactory.

11 RESULTS

11.1 Site-Specific Geology

The sub-surface conditions encountered at the Site during test pit excavation were predominantly observed to comprise natural soil horizons. Select areas of fill or disturbed soil conditions were observed within areas with the greatest historical activity, these are generally described as comprising the footprints of former structures, observed undulations against the lay of the land in the southern portion of the Site and in the northern portion of the Site as a fill bund.

The natural soil profile encountered at the Site can be broadly summarised as per the test pit summary log for TP20 which was established at the approximate centre of the Site:

0.0-0.1 *Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm*

0.1-0.8 *Silty, Sandy, CLAY, brown, moist, stiff*

0.8-1.2 *Silty, CLAY, brown/yellow/grey, moist, stiff*

1.2-1.2 *Extremely Weathered sandstone, white*

1.4- *Distinctly Weathered SHALE, white*

Geotest considered the natural sub-surface conditions to be generally consistent with the soil-landscape as identified within Section 2.1 of this report.

Further detail has been provided within Section 11.2 below relating to the presence, depth and condition of fill/disturbed soils at the various inspection locations, and further the type of inclusion observed in and on soils. Field test-pit summary logs are presented in Appendix B, detailing individual test pit conditions and other observations. Individual test pit locations are shown on Figure 3, presented as an attachment to this report.

11.2 Visual and Olfactory Observations

The Site was generally free of widespread, significant offensive visual or olfactory contamination indicators. During intrusive investigation works at the Site, a number of areas were identified where un-controlled fill materials were present. The table below presents a summary of the test pit and inspection locations recording elevated concentrations of foreign materials:

TABLE 11.2

Test Pit I.D	Total depth of fill recorded (m, bgl)	Elevated foreign materials identified at the surface or within soil profile (Y / Not observed)	Potential Asbestos Containing Materials identified on surface or within soil profile (Y / Not observed)	Depth of fill impacted by elevated foreign materials and / or asbestos (m))
TP3	0.0-1.0	Y	Not Observed	(0.0-0.5)
TP4	0.0-1.0	Y	Not Observed	(0.0-0.9)
TP5	0.0-0.9	Y	Not Observed	(0.0-0.7)
TP12	Surface Only	Y	Not Observed	Surface Only
TP32	0.0-0.2	Y	Not Observed	(0.0-0.1)
TP40	0.0-0.2	Y	Not Observed	(0.0-0.2)
SP1	0.0-0.5	Y	Not Observed	(0.0-0.5)
SP2	0.0-0.5	Y	Not Observed	(0.0-0.5)
SP3	0.0-0.5	Y	Not Observed	(0.0-0.5)
OBS1	Surface Only	Y	Not Observed	Surface Only
OBS2	Surface Only	Y	Not Observed	Surface Only
OBS3	Surface Only	Y	Not Observed	Surface Only

The OBS locations refer to minor storage of wastes and debris, including car parts, timber, steel, and plastic observed at select locations and are expected to be managed as part of the proposed demolition and Site clean-up works.

11.3 Reported Laboratory Results

The laboratory results Table LTS1 has been prepared to a summary of laboratory analytical data and the corresponding Site contamination criteria. The table has been attached to this report and a summary of the findings is presented below:

11.3.1 Metals

The results for metals in soils were all less than the adopted human health Site threshold criteria.

The results for relevant metals in soils were generally less than the adopted ecological health threshold criteria, this is with exception to sampling location 'TP40_0.0-0.1m' reporting zinc at 290 mg/kg (adopted ecological health threshold criteria of 270mg/kg).

11.3.2 OCP/ OPPs

The concentrations of OCP and OPP in the samples analysed were all less than the adopted Site criteria for human and ecological health.

11.3.3 PCBs

The concentrations of PCBs in the samples analysed were all less than the Site human health criteria.

11.3.4 PAHs

The concentrations of PAH in the samples analysed were all less than the adopted Site criteria for human and ecological health.

11.3.5 TRHs & BTEXN

The concentrations of TRHs and BTEXN in the samples analysed were all less than the adopted Site criteria for human and ecological health.

11.3.6 Asbestos

All samples analysed for the presence of asbestos reported no detections for asbestos within the samples at the laboratory LOR.

12 DISCUSSION

12.1 Soils – Human Health

The results of the laboratory analysis indicate that the concentrations of the contaminants of potential concern in soils at the sampling locations are all less than the adopted human health assessment criteria – Table 1 (a) Column HIL A (NEPM 2013).

Further human health assessment, management or remediation of these soils is not warranted.

Geotest further notes existing data gaps at the Site. These data gaps include areas such as building footprints, hardstand areas and buried services preventing access. These areas must be assessed upon becoming accessible during any future phases of works (ie. post demolition) to determine their contamination status and any validation requirements.

12.2 Soils – Aesthetics

The Site was observed to be generally free of material considered aesthetically un-suitable. This is with exception to 9 test pit location where elevated concentrations of foreign materials (brick, concrete, glass and/or tile) were observed within the fill or stockpile soils profile and 3 locations where elevated debris was stored at the surfaces, impacting on Site aesthetical suitability.

An additional inspection of the identified fill materials ex-situ should be undertaken by an appropriately experienced contaminated lands professional to ensure consistency with the materials described within this report.

Should any soils be identified during civil construction work that are not characteristic with descriptions in this report, are discoloured or odorous, include asbestos or other anthropogenic materials should be segregated for further assessment and characterisation by an appropriately experienced environmental consultant. Particular attention should be paid to burial pits of domestic, construction and building wastes.

12.3 Soils – Ecological Environments

The laboratory analysis results indicated that the concentrations of the contaminants of concern analysed at the sampling locations were generally less than the adopted human health assessment criteria; this is with exception to elevated concentrations of zinc detected within sample 'TP40_0.0-0.1m'. Zinc was detected at 290 mg/kg which marginally exceeded the Site-specific ecological criteria of 270 mg/kg. Test-Pit Investigation location TP40 represents the location within proximity to historically identified former structures where it is likely the elevated zinc detection are linked to some minor leaching of coatings from former building materials. With the presence of healthy vegetation on surfaces within this area, the impacts are expected to be localised.

Additional assessment, delineation, management and validation for localised zinc impacts as described above, and the additional assessment of data gap area (as presented within Section 6.2 and Section 10.1) is required.

12.4 Groundwater

Based on the results of this investigation, we do not consider the requirement for groundwater investigation to be required. This report has not identified any potential significant contamination sources impacting groundwater at the Site, nor the likelihood of any current or future groundwater use at the Site. Further groundwater assessment, management or remediation at the Site is not considered warranted.

13 UPDATED CONCEPTUAL SITE MODEL

The CSM presented within Section 6 of this report has been updated using the results of the sampling and laboratory analysis undertaken as part of this DSI to reflect the actual conditions known to exist on-Site. The updated CSM table includes the AECs requiring further investigation and has been presented within Table 13.1 below.

TABLE 13.1

AEC / CoPC	**Location on-Site**	**Receptor**	**Exposure Pathway or Impact**	**Outcome**
Fill materials / Metals (8), PAH, TRH, BTEX, OCP, PCB, asbestos, elevated foreign debris.	(1): As contouring surrounding residential area (possibly under structures). (2): within the south-central portion of the Site, where undulations against the lay of the land were observed. (3): within the stockpile transecting the northern boundary east to west.	(1)(2)(3): Site workers, visitors, future land users. (2): terrestrial ecological ecosystems.	(1)(2)(3): Human visual means (aesthetics). (2): Plant absorption	(1)(2)(3): Delineation, remediation, and validation for elevated foreign debris required. (2): Remediation and validation for zinc in soils creating an ecological health risk.
Surface stored debris and wastes	Within the north-eastern portion of the site	Site workers, visitors, future land users.	Human visual means (aesthetics).	Elevated debris to be lawfully removed from the Site to manage aesthetical limits.
Asbestos building materials in Site structures / asbestos	Site structures	Site workers, visitors, future land users	Inhalation	Appropriate identification, removal and clearance of any asbestos containing materials prior to demolition. Assessment of footprints for asbestos following demolition.
Footprints of existing structures / Metals (8), PAH, TRH, BTEX, OCP, PCB, asbestos, elevated foreign debris. Septic systems / Biological contaminants, heavy metals, hydrocarbons and pesticides.	Site structures and septic system associated with the residential dwelling	Future Site workers, visitors, future land users & terrestrial ecological ecosystems	Direct contact, human dermal absorption, inhalation, ingestion, plant absorption	Assessment of footprints following demolition is required. Appropriate removal of wastes from septic tanks (and off-Site disposal), subsequent decommissioning and assessment of void following.

13.1 Discussion on Data Gaps Areas Requiring Future Assessment

With reference to the updated CSM, the current occupancy of the Site and the stage of the proposed development at the time of the investigation; select AECs were considered to be inaccessible for investigation. These were generally limited to existing structures of Site features where access was restricted (ie. residential dwelling), beneath Site features or active domestic services. These areas represent data gaps in the overall assessment of the Site for the presence of unsuitable contamination. A suitable data gap investigation program will be required to address the data gap areas prior to the civil re-development and the future proposed land uses – following demotion.

14 CONCLUSIONS

Geotest concludes that; the Site is considered suitable for the proposed residential land uses subject to the localised remediation and validation of identified contamination, and the additional assessment of data gap areas upon becoming available (ie. existing building footprints).

The primary known contamination at the Site was elevated heavy metal zinc in soils at one location creating a localised ecological risk, and further, the presence of elevated foreign matter impacting soils and surfaces at multiple locations; Impacting on the aesthetical suitability of select soils for the future land-uses.

Geotest makes the following recommendations for remediation, validation, data gap investigation and subsequent re-development. Through implementation of these strategies, mitigation of any contamination spread, or risk should be achieved:

- Preparation of a Remedial Action Plan (RAP) to facilitate and guide the delineation, remediation and validation of identified contamination. Further incorporating the requirements of the future data gap assessment works.
- Remediation of identified zinc in soils contamination area and the management of soils impacted by elevated foreign debris including delineation and validation.
- Additional inspections of materials at the Site ex-situ by an appropriately experienced contaminated lands professional to ensure consistency with the materials described within this report.
- A survey for the presence of any asbestos containing building materials in Site structures should be undertaken prior to the demolition. Any identified asbestos containing building materials should be removed by appropriately licenced asbestos contractors and a clearance undertaken in conjunction with Safework requirements prior to the demolition of the structures.
- The on-site septic systems should be pumped out and wastes lawfully managed off-site. The systems should be appropriately decommissioned including an assessment of the tank void and transpiration bed following decommissioning.
- Following the demolition and clean-up of the residential area and shed; the building footprints and demolition work areas should be inspected and validated by an appropriately experienced consultant.
- A waste classification should be prepared for any soil materials being disposed off-site in accordance with NSW EPA 2014 Waste Classification Guidelines Part 1.

Further, in the event that any contaminating materials or other un-expected finds (ie. burial pits, irrigation pipes, etc) are identified during re-development, an appropriately experienced consultant should be engaged to attend Site. The works should cease immediately in the area of the discovery.

This report should be read in conjunction with its limitations presented in Section 13 of this report.

15 REFERENCES

- NEPC 2013, 'National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 No. 1' Federal Register of Legislative Instruments F2013L00768.
- NSW EPA 2017, 'Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)' ISBN 978 1 928088 23 8, Environmental Protection Authority NSW.
- NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines', ISBN 0 7310 3780 1.
- NSW EPA 2020, 'Contaminated Land Guidelines; Consultants Reporting on Contaminated Land, ISBN 978 1 925987 88 1, NSW EPA.
- NSW DEC (EPA) 2005, Contaminated Sites: Guidelines for Assessing Former Orchards and Market Gardens', ISBN 1 74137 019 1, Department of Environment and Conservations NSW.
- NSW EPA 2014 Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014; The excavated natural material order.

16 YOUR GEOTEST SERVICES DOCUMENT LIMITATIONS

It is critical you grasp your Geotest Services document as a whole as it has been prepared on the basis of a specific objective and scope as interpreted by Geotest Services and applies only to the Site or nominated area assessed.

The scope of works and report was prepared in response to specific instructions from the Geotest Service's client whom the report is addressed to. The scope, analysis, evaluations, conclusions and opinions presented in the report are based on these instructions from the client and information available and collected during our assessment.

The subsurface and ground conditions of the questioned property are subject to change over time from both natural and anthropogenic factors. The report presented has been prepared on the ground conditions observed at this time. Decisions should not be made on the basis of this report if it has been impacted by time.

The report has been prepared to accurately determine Site conditions whilst working within the budgetary and scope of work constraints given to Geotest. This may include physical, occupant or any other constraint at the Site preventing access for investigation. Ground conditions may differ from those encountered in the report. No report can practically qualify the exact sub-conditions present across the entire Site at any given time.

The conclusions above are based on the selective sampling programme which is targeted to be representative of the Site and conditions of the immediate area if reported. The document is set out using relevant regulatory authority guidelines and industry accepted practices. The document conclusions do not provide a guarantee that the ground conditions between those sampling points investigated are indifferent to those assessed.

The document Geotest Services has prepared for you should not be used for any other purpose than that originally specified in the report and at the time of commissioning.

The report and its appendices, supporting documents should be read in completeness and certainly not separated. The report will not be conclusive if a single section is interpreted without the support of the remaining components.

To prevent any mis-interpretations of the report, Geotest Services recommends the client or end user contact them with any mis-understood or environmental queries relating to this report.

In preparing the report Geotest have necessarily relied upon information provided by the Client and/or their Agents. Such data may include surveys, analyses, designs, maps and plans. Geotest have not verified the accuracy or completeness of the data except as stated in this report.

Geotest cannot be held responsible for interpretations or conclusions from review by others of this report or test data, which are not otherwise supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

Geotest Services

Table LTS1 9 Palaran Avenue, North Kellyville Soil Results & Adopted Site Criteria P33391.1_L01					Reference Sample ID Date Sampled Sample Matrix							521-Au04613 TP1 0.1-0.2 30/8/2021 Soil	521-Au04614 TP2 0.2-0.3 30/8/2021 Soil	521-Au04615 TP3 0.2-0.3 30/8/2021 Soil	521-Au04616 TP4 0.2-0.3 30/8/2021 Soil	521-Au04617 TP5 0.2-0.3 30/8/2021 Soil	521-Au04618 TP6 0.0-0.1 30/8/2021 Soil	521-Au04619 TP7 0.1-0.2 30/8/2021 Soil	521-Au04620 TP13 0.2-0.3 30/8/2021 Soil	521-Au04621 TP14 0.4-0.5 30/8/2021 Soil	521-Au04622 TP15 0.3-0.4 30/8/2021 Soil	521-Au04623 TP24 0.0-0.1 30/8/2021 Soil	521-Au04624 TP25 0.1-0.2 30/8/2021 Soil	521-Au04625 TP26 0.2-0.3 30/8/2021 Soil
Group	Analyte	Units	PQL	NEPM HIL A (2013) #	Management Limits for TPH fractions F1-F4 ^	HSLs for Direct Soil Contact (CRC Care 2011) **	NEPM HSLs Tbl. 1A(3) A & B (Sand) ***	NEPM ESL *, EIL (2013) 'aged' (Column 2) and site specific ****	DATASET MINIMUM	DATASET MAXIMUM															
Metals	Arsenic	mg/kg	<2	100				100	3.7	24	5.7	3.7	8	8.1	5.7	6.1	5.4	4.5	<2	5.9	11	8.6	10		
	Cadmium	mg/kg	<0.4	20				20	0.3	0.9	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	Chromium (total)	mg/kg	<5	100				400****	8.8	42	15	11	14	15	16	18	16	9.4	8.8	14	25	23	15		
	Copper	mg/kg	<5	6000				400****	5.4	77	9.7	5.4	27	16	9.3	<5	8.8	14	<5	11	<5	<5	27		
	Lead	mg/kg	<5	300				1100	6.3	103	25	16	32	110	39	13	16	18	6.3	17	17	16	48		
	Mercury	mg/kg	<0.1	40				1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	Nickel	mg/kg	<5	400				60****	5.5	15	6.1	<5	8.9	<5	7.4	5.5	<5	<5	<5	<5	<5	<5	11		
	Zinc	mg/kg	<5	7400				200****	5.1	200	69	20	270	31	24	18	47	13	6.7	29	5.2	5.1	130		
OCP	4,4'-DDD	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	4,4'-DDE	mg/kg	<0.05	340 (combined limit)					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	4,4'-DDT	mg/kg	<0.05					180	0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	a-BHC	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Aldrin	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Aldrin and Dieldrin (Total)*	mg/kg	<0.05	6					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	b-BHC	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlordanes - Total	mg/kg	<0.1	50					0	0	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	d-BHC	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	DDT + DDE + DDD (Total)*	mg/kg	<0.05	240					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Dieldrin	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endosulfan I	mg/kg	<0.05	270					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endosulfan II	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endosulfan sulphate	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endrin	mg/kg	<0.05	10					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endrin aldehyde	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Endrin ketone	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	g-BHC (Lindane)	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Heptachlor	mg/kg	<0.05	6					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Heptachlor epoxide	mg/kg	<0.05						0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	<0.05	10					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Methoxychlor	mg/kg	<0.05	300					0	0	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05
	Toxaphene	mg/kg	<1	20					0	0	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<10	<0.1	<0.1	<0.1	<0.1	<0.1
OPP	Azinphos-methyl	mg/kg	<0.2						0	0						<0.2						<0.2			
	Bolstar	mg/kg	<0.2						0	0						<0.2						<0.2			
	Chlorfenvinphos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Chlorpyrifos	mg/kg	<0.2	160					0	0						<0.2						<0.2			
	Chlorpyrifos-methyl	mg/kg	<0.2						0	0						<0.2						<0.2			
	Coumaphos	mg/kg	<3						0	0						<3						<3			
	Demeton-O	mg/kg	<0.2						0	0						<0.2						<0.2			
	Demeton-S	mg/kg	<0.2						0	0						<0.2						<0.2			
	Diazinon	mg/kg	<0.2						0	0						<0.2						<0.2			
	Dichlorvos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Dimethoate	mg/kg	<0.2						0	0						<0.2						<0.2			
	Disulfoton	mg/kg	<0.2						0	0						<0.2						<0.2			
	EPN	mg/kg	<0.2						0	0						<0.2						<0.2			
	Ethion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Ethoprop	mg/kg	<0.2						0	0						<0.2						<0.2			
	Ethyl parathion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Fenchlorphos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Fensulfothion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Fenthion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Malathion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Merphos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Methyl parathion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Mevinphos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Monocrotophos	mg/kg	<2						0	0						<2						<2			
	Naled	mg/kg	<0.2						0	0						<0.2						<0.2			
	Omethoate	mg/kg	<2						0	0						<2						<2			
	Profenfos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Pirimiphos-methyl	mg/kg	<0.2						0	0						<0.2						<0.2			
	Pyrazophos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Terbufos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Tetrachlorvinphos	mg/kg	<0.2						0	0						<0.2						<0.2			
	Tokuthion	mg/kg	<0.2						0	0						<0.2						<0.2			
	Trichloronate	mg/kg	<0.2						0	0						<0.2						<0.2			
Total PCB		mg/kg	<0.1						0	0	<0.5	<0.5		<0.5	<0.5		<0.5	<0.5	<1	<0.5			<0.5	<0.5	
TRHBTEX	Benzene	mg/kg	<0.1			190	0.5	65*	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1	
	Ethylbenzene	mg/kg	<0.1			4,300	55	123*	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1	
	o-Xylene	mg/kg	<0.1				40	45*	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1	
	Toluene	mg/kg	<0.1			14,000	160	105*	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.1	
	Naphthalene	mg/kg	<0.5			1,400	3	170	0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	TRH >C10-C16	mg/kg	<50		1,000	3,300	110	120*	0	0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50			<50	<50	
	TRH >C16-C34	mg/kg	<100		2,500	4,500		1,300*	140	140	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100			<100	<100	
	TRH >C34-C40	mg/kg	<100		10,000	6,300		5,600*	250	250	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100			<100	<100	
	TRH C6-C10	mg/kg	<20		700	4,400	45	180*	0	0	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20			<20	<20	
	TRH C6-C10 less BTEX (F1)	mg/kg	<29						0	0	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29			<29	<29	
PAH	Acenaphthene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Acenaphthylene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Anthracene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benz(a)anthracene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benzo(a)pyrene	mg/kg	<0.5	3				0.7*	0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	<0.5	3					0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benzo(a)pyrene TEQ (medium bound)*	mg/kg	<0.6	3					0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6			0.6	0.6	
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	<1.2	3					1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2			1.2	1.2	
	Benzo(b&j)fluoranthene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benz(g,h,i)perylene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Benzo(k)fluoranthene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Chrysene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Dibenz(a,h)anthracene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Fluoranthene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Fluorene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Indeno(1,2,3-cd)pyrene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Naphthalene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Phenanthrene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Pyrene	mg/kg	<0.5						0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
	Total PAH	mg/kg	<0.5	300					0	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	
Asbestos	Asbestos Identification	NA	Detect						0	0		No detect	No detect	No detect	No detect	No detect	No detect			No detect				No detect	

 # NEPM Table 1A (1) Column A Standard Residential Land Uses 2013
** NEPM Table 1B(7) Table 1 B(7) 'Management Limits for TPH fractions F1-F4 (fresh)*
*** CRC Care 2011 Table 4 Soil Health Screening Levels For Direct Soil Contact*
**** NEPM Table 1A(3) HSLs Vapour Intrusion, HSL A & HSL B Low - High Density Residential; adopting conservative; Sand 0 - <1m*
***** Site Specific EIL for metals derived based on physiochemical and select heavy metals results from natural soils at 'SSEIL'*
^ NEPM Table 1B(6) ESLs TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil adopting coarse grained soils, fine grained for xylenes
Blue denotes samples and criteria relevant to two-point composite sample preparation (EPA 1995, 2b)

Geotest Services

Table LTS1 9 Palaran Avenue, North Kellyville Soil Results & Adopted Site Criteria P33391.1_L01					Reference Sample ID Date Sampled Sample Matrix							521-Au04626 TP27 0.2-0.3 3/08/2021 Soil	521-Au04627 TP28 0.1-0.2 3/08/2021 Soil	521-Au04628 TP29 0.1-0.2 3/08/2021 Soil	521-Au04629 TP32 0.1-0.2 3/08/2021 Soil	521-Au04630 TP35 0.1-0.2 3/08/2021 Soil	521-Au04631 TP36 0.1-0.2 3/08/2021 Soil	521-Au04632 TP37 0.1-0.2 3/08/2021 Soil	521-Au04633 TP38 0.0-0.1 3/08/2021 Soil	521-Au04634 TP39 0.1-0.2 3/08/2021 Soil	521-Au04635 TP40 0.0-0.1 3/08/2021 Soil	521-Au04636 TP41 0.1-0.2 3/08/2021 Soil	521-Au04637 TP42 0.2-0.3 3/08/2021 Soil	521-Au04638 TP43 0.1-0.2 3/08/2021 Soil	521-Au04639 BP1 3/08/2021 Soil	521-Au04640 BP2 3/08/2021 Soil	521-Au04641 BP3 3/08/2021 Soil	521-Au04642 BP4 3/08/2021 Soil	521-Au04643 SS1 3/08/2021 Soil	521-Au04644 SS2 3/08/2021 Soil
Group	Analyte	Units	PQL	NEPM HIL A (2013) #	Management Limits for TPH fractions F1-F4 ^	HSLs for Direct Soil Contact (CRC Care 2011) **	NEPM HSLs Tbl. 1A(3) A & B (Sand) ***	NEPM ESL *, EIL (2013) 'aged' (Column 2) and site specific ****	DATASET MINIMUM	DATASET MAXIMUM																				
Metals	Arsenic	mg/kg	<2	100				100	3.7	24	6	10	17	6.3	24	15	9.8	8.7	7.9	12	9.2	6.7	9.7	7.2	7.8	7.6	16		
	Cadmium	mg/kg	<0.4	20					0.3	0.9	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	0.9	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4		
	Chromium (total)	mg/kg	<5	100				250****	8.8	42	15	17	34	14	42	30	24	22	15	48	16	15	19	28	27	18	22		
	Copper	mg/kg	<5	6000				260****	5.4	77	20	27	15	27	14	17	16	20	27	77	14	19	8.3	15	8.8	14	7.1		
	Lead	mg/kg	<5	300				210#	6.3	160	27	47	52	42	32	33	30	44	34	160	57	160	29	59	31	31	16		
	Mercury	mg/kg	<0.1	40					0	0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1		
	Nickel	mg/kg	<5	400				45****	5.5	15	8.9	7.7	<5	8.1	<5	<5	6.8	6.3	15	14	13	<5	<5	<5	11	7.3	<5		
	Zinc	mg/kg	<5	7400				200****	5.1	390	67	230	34	120	100	140	120	100	83	290	95	160	94	73	86	270	32		
OCP	4,4'-DDD	mg/kg	<0.05	360 (combined limit)					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	4,4'-DDE	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	4,4'-DDT	mg/kg	<0.05					180	0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	a-BHC	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Aldrin	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Aldrin and Dieldrin (Total)*	mg/kg	<0.05	6					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	b-BHC	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Chlordanes - Total	mg/kg	<0.1	50					0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1	<0.1	<0.1		<0.1			
	d-BHC	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	0.06		<0.05			
	DDT + DDE + DDD (Total)*	mg/kg	<0.05	240					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Dieldrin	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endosulfan I	mg/kg	<0.05	270					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endosulfan II	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endosulfan sulphate	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endrin	mg/kg	<0.05	10					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endrin aldehyde	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Endrin ketone	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	g-BHC (Lindane)	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Heptachlor	mg/kg	<0.05	6					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Heptachlor epoxide	mg/kg	<0.05						0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Hexachlorobenzene	mg/kg	<0.05	10					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
	Methoxychlor	mg/kg	<0.05	300					0	0		<0.05		<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	<0.05	<0.05		<0.05			
OPP	Toxaphene	mg/kg	<1	20					0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1	<0.1	<0.1		<0.1			
	Azinphos-methyl	mg/kg	<0.2						0	0						<0.2							<0.2						
	Bolstar	mg/kg	<0.2						0	0						<0.2							<0.2						
	Chlorfenvinphos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Chlorpyrifos	mg/kg	<0.2	160					0	0						<0.2							<0.2						
	Chlorpyrifos-methyl	mg/kg	<0.2						0	0						<0.2							<0.2						
	Coumaphos	mg/kg	<3						0	0						<3							<3						
	Demeton-O	mg/kg	<0.2						0	0						<0.2							<0.2						
	Demeton-S	mg/kg	<0.2						0	0						<0.2							<0.2						
	Diazinon	mg/kg	<0.2						0	0						<0.2							<0.2						
	Dichlorvos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Dimethoate	mg/kg	<0.2						0	0						<0.2							<0.2						
	Disulfoton	mg/kg	<0.2						0	0						<0.2							<0.2						
	EPN	mg/kg	<0.2						0	0						<0.2							<0.2						
	Ethion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Ethoprop	mg/kg	<0.2						0	0						<0.2							<0.2						
	Ethyl parathion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Fenitrothion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Fensulfothion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Fenthion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Malathion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Merphos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Methyl parathion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Mevinphos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Monocrotophos	mg/kg	<2						0	0						<2							<2						
	Naled	mg/kg	<0.2						0	0						<0.2							<0.2						
	Omethoate	mg/kg	<2						0	0						<2							<2						
	Profenofos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Pirimiphos-methyl	mg/kg	<0.2						0	0						<0.2							<0.2						
	Pyrazophos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Sulprofos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Terbufos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Tetrachlorvinphos	mg/kg	<0.2						0	0						<0.2							<0.2						
	Tokuthion	mg/kg	<0.2						0	0						<0.2							<0.2						
	Trichloronate	mg/kg	<0.2						0	0						<0.2							<0.2						
Total PCB		mg/kg	<0.1						0	0		<0.5		<0.5	<0.5		<0.5		<0.5	<0.5		<0.5		<0.5		<0.5			
TRHBTEX	Benzene	mg/kg	<0.1			190	0.5	65*	0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	<0.1	<0.1		
	Ethylbenzene	mg/kg	<0.1			4,300	55	123*	0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	<0.1	<0.1		
	o-Xylene	mg/kg	<0.1				40	45*	0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	<0.1	<0.1		
	Toluene	mg/kg	<0.1			14,000	160	105*	0	0		<0.1		<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	<0.1	<0.1		
	Naphthalene	mg/kg	<0.5			1,400	3	170	0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	TRH >C10-C16	mg/kg	<50		1,000	3,300	110	130*	0	0		<50		<50	<50	<50	<50		<50	<50	<50	<50		<50		<50	<50	<50		
	TRH >C16-C34	mg/kg	<100		2,500	4,500		1,300*	140	140		140		<100	<100	<100	<100		<100	<100	<100	<100		<100		<100	<100	<100		
	TRH >C34-C40	mg/kg	<100		10,000	6,300		5,600*	250	250		250		<100	<100	<100	<100		<100	<100	<100	<100		<100		<100	<100	<100		
	TRH C6-C10	mg/kg	<20		700	4,400	45	180*	0	0		<20		<20	<20	<20	<20		<20	<20	<20	<20		<20		<20	<20	<20		
	TRH C6-C10 less BTEX (F1)	mg/kg	<25						0	0		<25		<25	<25	<25	<25		<25	<25	<25	<25		<25		<25	<25	<25		
PAH	Acenaphthene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Acenaphthylene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Anthracene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benz(a)anthracene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benzo(a)pyrene	mg/kg	<0.5	3				0.7*	0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	<0.5	3					0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benzo(a)pyrene TEQ (mid bound)*	mg/kg	<0.6	3					0.6	0.6		0.6		0.6	0.6	0.6	0.6		0.6	0.6	0.6	0.6		0.6		0.6	0.6	0.6		
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	<1.2	3					1.2	1.2		1.2		1.2	1.2	1.2	1.2		1.2	1.2	1.2	1.2		1.2		1.2	1.2	1.2		
	Benzo(b&j)fluoranthene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benzo(g,h,i)perylene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Benzo(k)fluoranthene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Chrysene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Dibenz(a,h)anthracene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Fluoranthene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Fluorene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Indeno(1,2,3-cd)pyrene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Naphthalene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Phenanthrene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Pyrene	mg/kg	<0.5						0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
	Total PAH	mg/kg	<0.5	300					0	0		<0.5		<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5		<0.5		<0.5	<0.5	<0.5		
Asbestos	Asbestos Identification	NA	Detect	Detect							No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect	No detect

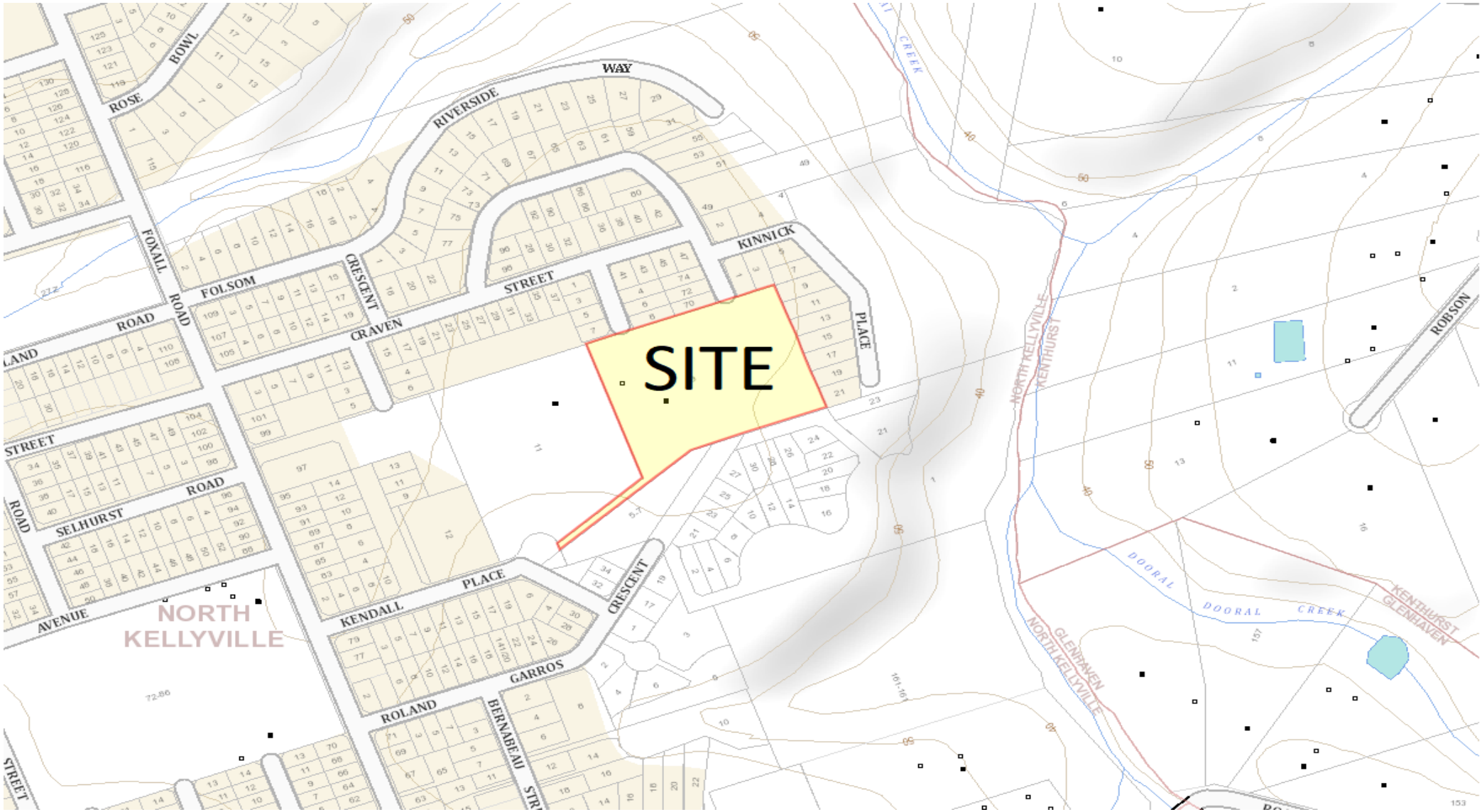
 # NEPM Table 1A (1) Column A Standard Residential Land Uses 2013
** NEPM Table 1B(7) Table 1 B(7) 'Management Limits for TPH fractions F1-F4 (fresh)*
*** CRC Care 2011 Table 4. Soil Health Screening Levels For Direct Soil Contact*
**** NEPM Table 1A(3) HSLs Vapour Intrusion, HSL A & HSL B Low - High Density Residential; adopting conservative; Sand 0 - <1m*
***** Site Specific EIL for metals derived based on physiochemical and select heavy metals results from natural soils at 'SSEIL'*
^ NEPM Table 1B(6) ESLs TPH fractions F1 – F4, BTEX and benzo(a)pyrene in soil adopting coarse grained soils, fine grained for xylenes
Blue denotes samples and criteria relevant to two-point composite sample preparation (EPA 1995, 2b)

Table LTS2 9 Palaran Avenue, North Kellyville Field Data Quality Assessment P33391.1_L01		Reference	S21-Au04614	S21-Au04645		S21-Au04646			S21-Au04624	S21-Au04647		S21-Au04648	
		Sample ID	TP2 0.2-0.3	DUP1	RPD %	DUP1A	RPD %		TP25 0.1-0.2	DUP2	RPD %	DUP2A	RPD %
		Date Sampled	3/08/2021	3/08/2021		3/08/2021			3/08/2021	3/08/2021		3/08/2021	
		Sample Matrix	Soil	Soil		Soil			Soil	Soil		Soil	
Group	Analyte	LOR (mg/kg)* Prim/Second											
Metals	Arsenic	2	3.7	4.6	22	12	106		10	57	140	8	19
	Cadmium	0.4	< 0.4	< 0.4	0	< 0.4	0		< 0.4	6.2	0	< 0.4	0
	Chromium	5	11	12	9	24	74		15	64	124	21	-33
	Copper	5	5.4	6.8	23	7	26		27	68	86	< 5	0
	Lead	5	16	24	40	24	40		48	65	30	20	82
	Mercury	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	1.3	0	< 0.1	0
	Nickel	5	< 5	< 5	0	< 5	0		11	69	145	< 5	0
	Zinc	5	20	16	22	28	33		130	69	61	6	182
OCP	4.4'-DDD	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	4.4'-DDE	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	4.4'-DDT	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	a-BHC	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Aldrin	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Aldrin and Dieldrin (Total)*	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	b-BHC	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Chlordanes - Total	0.05	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
	d-BHC	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	DDT + DDE + DDD (Total)*	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Dieldrin	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endosulfan I	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endosulfan II	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endosulfan sulphate	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endrin	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endrin aldehyde	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Endrin ketone	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	g-BHC (Lindane)	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Heptachlor	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Heptachlor epoxide	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Hexachlorobenzene	0.05	< 0.05	< 0.05	0	< 0.05	0		< 0.05	< 0.05	0	< 0.05	0
	Methoxychlor	0.2	< 0.2	< 0.2	0	< 0.05	0		< 0.2	< 0.2	0	< 0.2	0
	Toxaphene	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
PCB	Total PCB	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
TRH/BTEX	Benzene	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
	Ethylbenzene	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
	o-Xylene	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
	Toluene	0.1	< 0.1	< 0.1	0	< 0.1	0		< 0.1	< 0.1	0	< 0.1	0
	Naphthalene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	TRH >C10-C16	50	< 50	< 50	0	< 50	0		< 50	< 50	0	< 50	0
	TRH >C16-C34	100	< 100	< 100	0	< 100	0		< 100	< 100	0	< 100	0
	TRH >C34-C40	100	< 100	< 100	0	< 100	0		< 100	< 100	0	< 100	0
	TRH C6-C10	20	< 20	< 20	0	< 20	0		< 20	< 20	0	< 20	0
	TRH C6-C10 less BTEX (F1)	20	< 20	< 20	0	< 20	0		< 20	< 20	0	< 20	0
PAH	Acenaphthene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Acenaphthylene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Anthracene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benz(a)anthracene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benzo(a)pyrene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benzo(a)pyrene TEQ (lower bound)*	-	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benzo(a)pyrene TEQ (medium bound)*	-	0.6	0.6	0	0.6	0		0.6	0.6	0	0.6	0
	Benzo(a)pyrene TEQ (upper bound)*	-	1.2	1.2	0	1.2	0		1.2	1.2	0	1.2	0
	Benzo(b&j)fluoranthene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benzo(g.h.i)perylene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Benzo(k)fluoranthene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Chrysene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Dibenz(a.h)anthracene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Fluoranthene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Fluorene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Indeno(1.2.3-cd)pyrene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Naphthalene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Phenanthrene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Pyrene	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0
	Total PAH	0.5	< 0.5	< 0.5	0	< 0.5	0		< 0.5	< 0.5	0	< 0.5	0

Yellow highlight indicates RPD Exceedance >50%, if applicable.
Geotest assumes results less than LOR are equal to zero.
Geotest Assumes 0% RPD where Inter and Intra-laboratory LOR is different.
* LOR of primary laboratory

Table TS/TB		Reference	S21-Jn43984	S21-Jn43985
9 Palaran Avenue, North Kellyville		Sample ID	Trip Blank	Trip Spike
Summary Of Trip Spike/Blank Data		Date Sampled	22/06/2021	22/06/2021
P33391.1_L01		Sample Matrix	Soil	Soil
Group	Analyte	Units		
BTEX	Benzene	mg/kg	<0.1	93%
	Ethylbenzene	mg/kg	<0.1	85%
	m&p-Xylenes	mg/kg	<0.2	84%
	o-Xylene	mg/kg	<0.1	85%
	Toluene	mg/kg	<0.1	86%
	Xylenes - Total*	mg/kg	<0.3	85%
TRH	Napthalene	mg/kg	<0.5	87%
	TRH C6-C9	mg/kg	<20	86%

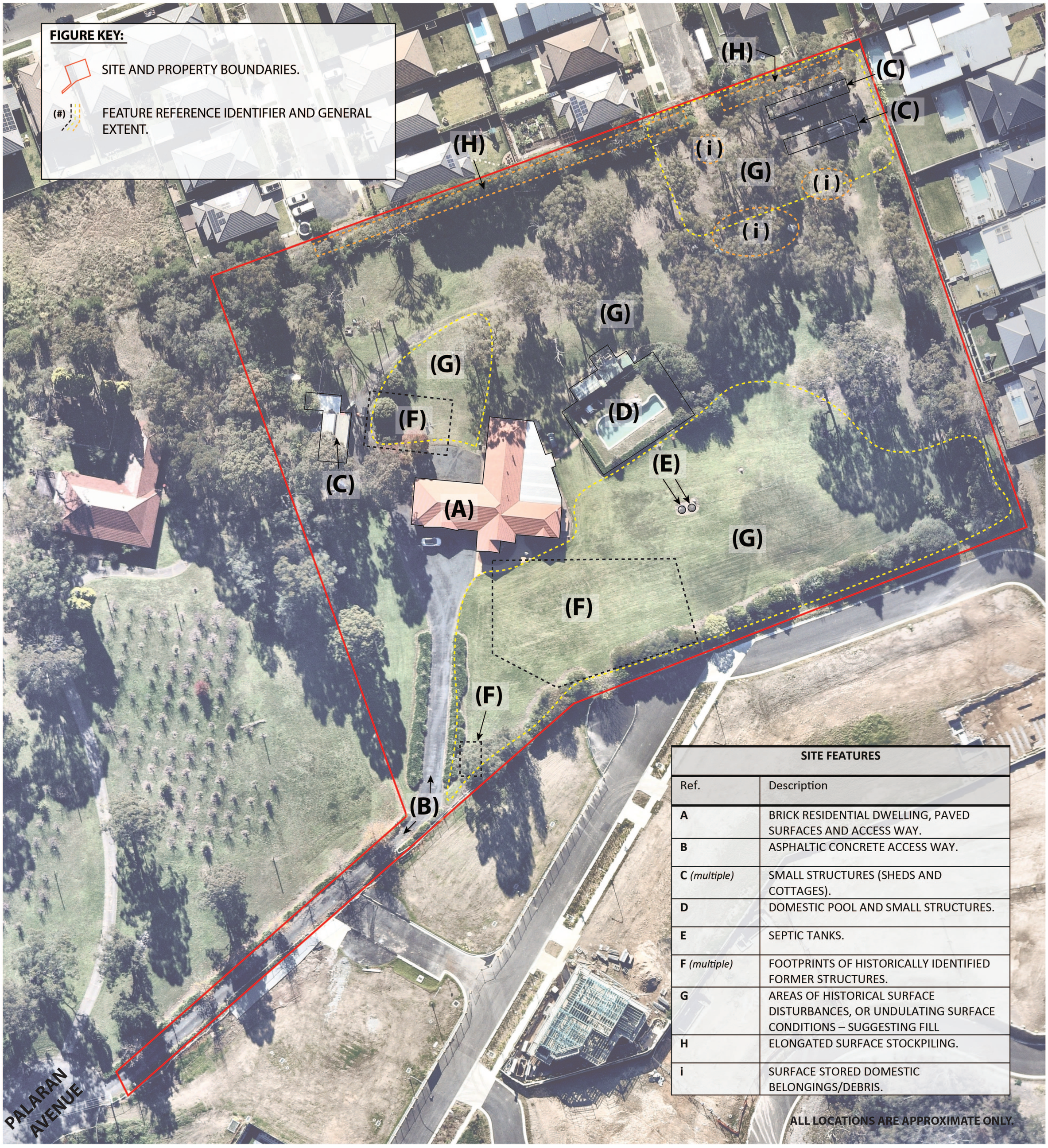
Table SSEIL 9 Palaran Avenue, North Kellyville Adopted Site Specific Ecological Criteria P33391.1_L01		Reference Sample ID Date Sampled Sample Matrix	S21-Au04649 SSEIL 3/08/2021 Soil	Derived Site Specific Eils
Group	**Analyte**	**Units**		
Metals	Arsenic	mg/kg	**10**	
	Cadmium	mg/kg	< 0.4	
	Chromium	mg/kg	**31**	**400**
	Copper	mg/kg	<5	**120**
	Lead	mg/kg	**15**	
	Mercury	mg/kg	< 0.1	
	Nickel	mg/kg	<5	**55**
	Zinc	mg/kg	<5	**270**
Physiochemical Properties	% Moisture	%	7	
	% Clay	%	8	
	Conductivity	uS/cm	36	
	pH	pH units	7.4	
	Total Organic Carbon	%	0.6	
	Cation Exchange Capacity	meq/100g	6	



Title: **Site Locality**		Figure: **Figure 1**	Project No: **P33391.1_R01**
Project: Preliminary & Detailed Site Investigation	Scale: Not to Scale	Geotest Services	
Location: 9 Palaran Avenue, North Kellyville NSW	Date: 11/08/2021		
Client: Robert Moore & Assocuates Pty Ltd	Drawn: D.R.S		

N NW NE W E SW SE S

Image source: SIXMap accessed 2021



SITE FEATURES	
Ref.	Description
A	BRICK RESIDENTIAL DWELLING, PAVED SURFACES AND ACCESS WAY.
B	ASPHALTIC CONCRETE ACCESS WAY.
C *(multiple)*	SMALL STRUCTURES (SHEDS AND COTTAGES).
D	DOMESTIC POOL AND SMALL STRUCTURES.
E	SEPTIC TANKS.
F *(multiple)*	FOOTPRINTS OF HISTORICALLY IDENTIFIED FORMER STRUCTURES.
G	AREAS OF HISTORICAL SURFACE DISTURBANCES, OR UNDULATING SURFACE CONDITIONS – SUGGESTING FILL
H	ELONGATED SURFACE STOCKPILING.
i	SURFACE STORED DOMESTIC BELONGINGS/DEBRIS.

ALL LOCATIONS ARE APPROXIMATE ONLY.

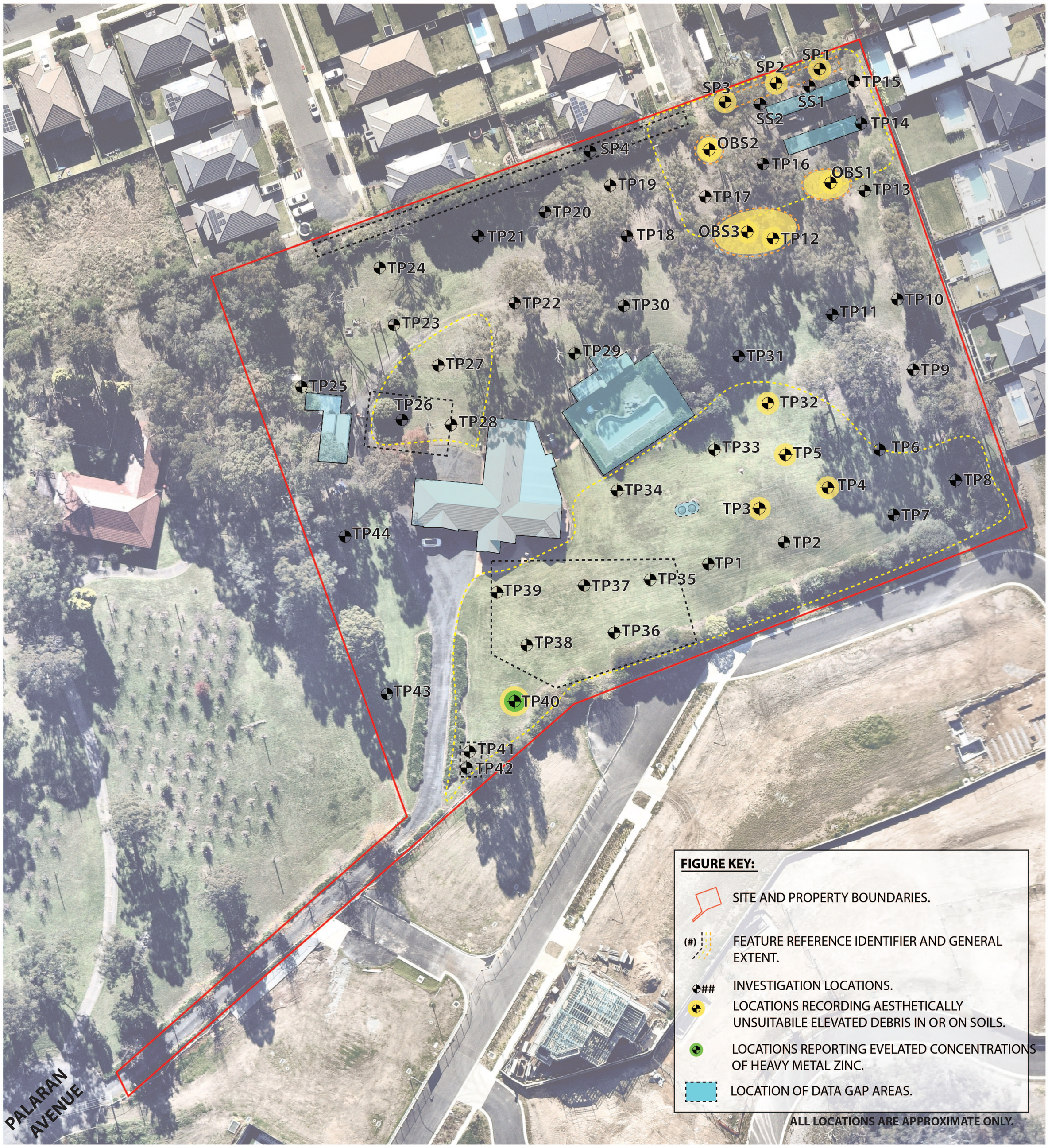
Title: **Site Layout and Areas of Environmental Concern**		Figure: **Figure 2**	Project No: **P33391.1_R01**
Project: Preliminary & Detailed Site Investigation	Scale: Not to Scale		
Location: 9 Palaran Avenue, North Kellyville NSW	Date: 01/09/2021		
Client: Robert Moore & Associates Pty Ltd	Drawn: A.H.		

Geotest Services

Image source: NearMap, accessed 2021.

Title: **Plan of Site Investigation Locations**		Figure: **Figure 3**	Project No: **P33391.1_R01**
Project: Preliminary & Detailed Site Investigation	Scale: Not to Scale	Geotest Services	
Location: 9 Palaran Avenue, North Kellyville NSW	Date: 01/09/2021		
Client: Robert Moore & Associates Pty Ltd	Drawn: A.H.		

Image source: NearMap, accessed 2021.



Title: **Site Exceedances & Data Gap Areas**		Figure: **Figure 4**	Project No: **P33391.1_R01**
Project: Preliminary & Detailed Site Investigation	Scale: Not to Scale	Geotest Services	
Location: 9 Palaran Avenue, North Kellyville NSW	Date: 01/09/2021		
Client: Robert Moore & Associates Pty Ltd	Drawn: A.H.		

N NW NE W E SW SE S

Image source: NearMap, accessed 2021.

APPENDIX A

Phase 1 Historical Land Information

- *Historical Titles Search*
- *S10.7 Search*
- *NSW EPA Contaminated Land Report*
- *NSW Office of Water Search Results*
- *NSW EPA POEO Search Results*
- *Historical Aerial Imagery*

ADVANCE LEGAL SEARCHERS PTY LTD

(ACN 147 943 842)
ABN 82 147 943 842

18/36 Osborne Road,
Manly NSW 2095

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

27th July, 2021

GEOTEST SERVICES PTY LIMITED
P.O. Box 928,
KINGS LANGLEY NSW 2147

Attention: Alan Halpin

RE: **9 Palaran Avenue,**
North Kellyville

Current Search

Folio Identifier 3/249675 (title attached)
DP 249675 (plan attached)
Dated 27th July, 2021
Registered Proprietor:
GEOFFREY RAYMOND MORGANS
DIANNE MARGARET MORGANS

Title Tree
Lot 3 DP 249675

Folio Identifier 3/249675

Certificate of Title Volume 12842 Folio 219

IVA 16910

Conveyance Book 2999 No 777

Conveyance Book 2402 No 580

Conveyance Book 2270 No 400

(a)

Conv Book 1948 No 375

Conv Book 1838 No 278

****

(b)

Conv Book 1939 No 472

Conv Book 1931 No 922

Conv Book 300 No 809

****

Summary of proprietor(s)
Lot 3 DP 249675

Year	Proprietor(s)
	(Lot 3 DP 249675)
1995 – todate	Geoffrey Raymond Morgans Dianne Margaret Morgans
1993 – 1995	John Michael Kaminski, cleaning contractor Marie Kaminski, widow
1988 – 1993	Marie Kaminski, widow John Michael Kaminski, cleaning contractor Carol Janice Kaminski, his wife
1987 – 1988	John Michael Kaminski, cleaning contractor Marie Kaminski, widow
	(Lot 3 DP 249675 – CTVol 12842 Fol 219)
1978 – 1987	John Michael Kaminski, cleaning contractor Marie Kaminski, widow
1975 – 1978	Wonga Pastoral Development Co. Pty. Limited
	(Part Portion 25 Parish Castle Hill & Lot C DP 156194 – Area 20Acres 3 Roods 4 ¼ Perches – Conv Bk 2999 No 777)
1971 – 1975	Wonga Pastoral Development Co. Pty. Limited
	(Part Portion 25 Parish Castle Hill & Lot C DP 156194 – Area 20Acres 3 Roods 4 ¼ Perches – Conv Bk 2402 No 580)
1957 – 1971	John McLean Stirling, farmer Andrew Campbell Stirling, farmer
	(Part Portion 25 Parish Castle Hill & Lot C DP 156194 – Area 20Acres 3 Roods 4 ¼ Perches – Conv Bk 2270 No 400)
1953 – 1957	Douglas Ralph Henry Pittman, waterside worker

See Notes (a) & (b)

Note (a)

	(Portion 24 Parish Castle Hill – Area 45 Acres – Conv Bk 1948 No 375)
1944 – 1953	Henry Arthur Laurence Liaubon, farmer Elsie May Liaubon, his wife
	(Portion 24 Parish Castle Hill – Area 45 Acres – Conv Bk 1838 No 278)
1939 – 1944	Thomas Daniel Anderson, timber merchant
1935 – 1939	Public Trustee Isiah Mutton, estate
1934 – 1935	Raymond Spencer Mutton, administrator Isiah Mutton, estate
1899 – 1934	James Isiah Mutton, executor / trustee John Michael Taylor, executor / trustee Isiah Mutton, estate

****

Note (b)

	(Portion 25 Parish Castle Hill – Area 39 Acres – Conv Bk 1939 No 472)
1944 – 1953	Henry Arthur Laurence Liaubon, farmer Elsie May Liaubon, his wife
	(Portion 25 Parish Castle Hill – Area 39 Acres – Conv Bk 1931 No 922)
1943 – 1944	Randle Ellis Pritchard, clerk
1924 – 1943	Violet Pritchard, widow / executrix William Hamilton, solicitor / executor Harry Fisher, estate
1922 – 1924	Edith Frances Fisher, widow / executrix William Hamilton, solicitor / executor Harry Fisher, estate
	(Portion 25 Parish Castle Hill – Area 39 Acres – Conv Bk 300 No 809)
1884 – 1922	Harry Fisher, gentleman

****

Cadastral Records Enquiry Report : Lot 3 DP 249675

Ref : NOUSER

Locality : NORTH KELLYVILLE
Parish : CASTLE HILL
LGA : THE HILLS SHIRE
County : CUMBERLAND

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

	Status	Surv/Comp	Purpose
DP249675			
Lot(s): 5			
DP1239366	REGISTERED	SURVEY	SUBDIVISION
DP286747			
Lot(s): 1, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14			
DP156194	HISTORICAL	SURVEY	UNRESEARCHED
DP1202060	HISTORICAL	SURVEY	SUBDIVISION
DP286793			
Lot(s): 42, 43, 44			
DP533149	HISTORICAL	SURVEY	SUBDIVISION
DP1219689	HISTORICAL	SURVEY	SUBDIVISION
DP1237161	HISTORICAL	SURVEY	SUBDIVISION
DP286869			
Lot(s): 11			
DP508461	HISTORICAL	SURVEY	SUBDIVISION
DP522398	HISTORICAL	COMPILATION	SUBDIVISION
DP582310	HISTORICAL	SURVEY	SUBDIVISION
DP1208774	HISTORICAL	SURVEY	SUBDIVISION
DP1224411	HISTORICAL	SURVEY	SUBDIVISION
DP1229448	HISTORICAL	SURVEY	SUBDIVISION
DP1232096	HISTORICAL	SURVEY	SUBDIVISION
DP1258167	HISTORICAL	SURVEY	SUBDIVISION
DP286928			
Lot(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22			
DP249675	HISTORICAL	SURVEY	SUBDIVISION
DP582310	HISTORICAL	SURVEY	SUBDIVISION
DP1262623	HISTORICAL	SURVEY	SUBDIVISION
DP1202060			
Lot(s): 612, 613, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 637, 638, 639, 640			
DP156194	HISTORICAL	SURVEY	UNRESEARCHED
DP1213075			
Lot(s): 169			
DP522398	HISTORICAL	COMPILATION	SUBDIVISION
DP582310	HISTORICAL	SURVEY	SUBDIVISION
DP1208774	HISTORICAL	SURVEY	SUBDIVISION
DP1224411	HISTORICAL	SURVEY	SUBDIVISION
DP1268014	PRE-EXAM	SURVEY	SUBDIVISION
DP1268015	PRE-EXAM	SURVEY	SUBDIVISION
DP1239366			
Lot(s): 1300			
DP1239367	PRE-ALLOCATED	UNAVAILABLE	SUBDIVISION
Lot(s): 1300, 1308, 1309, 1310			
DP249675	HISTORICAL	SURVEY	SUBDIVISION
DP1232585	HISTORICAL	SURVEY	SUBDIVISION
DP1239365	HISTORICAL	SURVEY	SUBDIVISION
DP1258167			
Lot(s): 2			
DP508461	HISTORICAL	SURVEY	SUBDIVISION
DP1262623			
Lot(s): 1			
DP249675	HISTORICAL	SURVEY	SUBDIVISION
DP286928	REGISTERED	SURVEY	NEIGHBOURHOOD PLAN
DP582310	HISTORICAL	SURVEY	SUBDIVISION
DP1268014	PRE-EXAM	SURVEY	SUBDIVISION
DP1268015	PRE-EXAM	SURVEY	SUBDIVISION
Road			
Polygon Id(s): 176852188			
DP1274399	REGISTERED	SURVEY	ROADS ACT, 1993
CA176635 -LOT 1 DP1274399			

Plan	Surv/Comp	Purpose
DP249675	SURVEY	SUBDIVISION
DP286747	SURVEY	NEIGHBOURHOOD PLAN
DP286747	UNRESEARCHED	NEIGHBOURHOOD PLAN
DP286793	SURVEY	NEIGHBOURHOOD PLAN
DP286869	UNRESEARCHED	NEIGHBOURHOOD PLAN
DP286869	SURVEY	NEIGHBOURHOOD PLAN
DP286928	SURVEY	NEIGHBOURHOOD PLAN
DP1202060	UNRESEARCHED	SUBDIVISION
DP1202060	SURVEY	SUBDIVISION
DP1213075	UNRESEARCHED	SUBDIVISION
DP1213075	SURVEY	SUBDIVISION
DP1239366	UNRESEARCHED	SUBDIVISION
DP1239366	SURVEY	SUBDIVISION
DP1258167	SURVEY	SUBDIVISION
DP1258167	UNRESEARCHED	SUBDIVISION
DP1262623	SURVEY	SUBDIVISION
DP1274399	SURVEY	ROADS ACT, 1993

12842219

[redacted]FICATE OF TITLE

NEW SOUTH WALES

[redacted]AL PROPERTY ACT, 1900

IVA No.16910

Vol. 12842 Fol. 219

EDITION ISSUED

CANCELLED 13 10 1975

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

SEE AUTO FOLIO

Registrar General.

12842 Fol. 219

(Page 1) Vol.

PLAN SHOWING LOCATION OF LAND

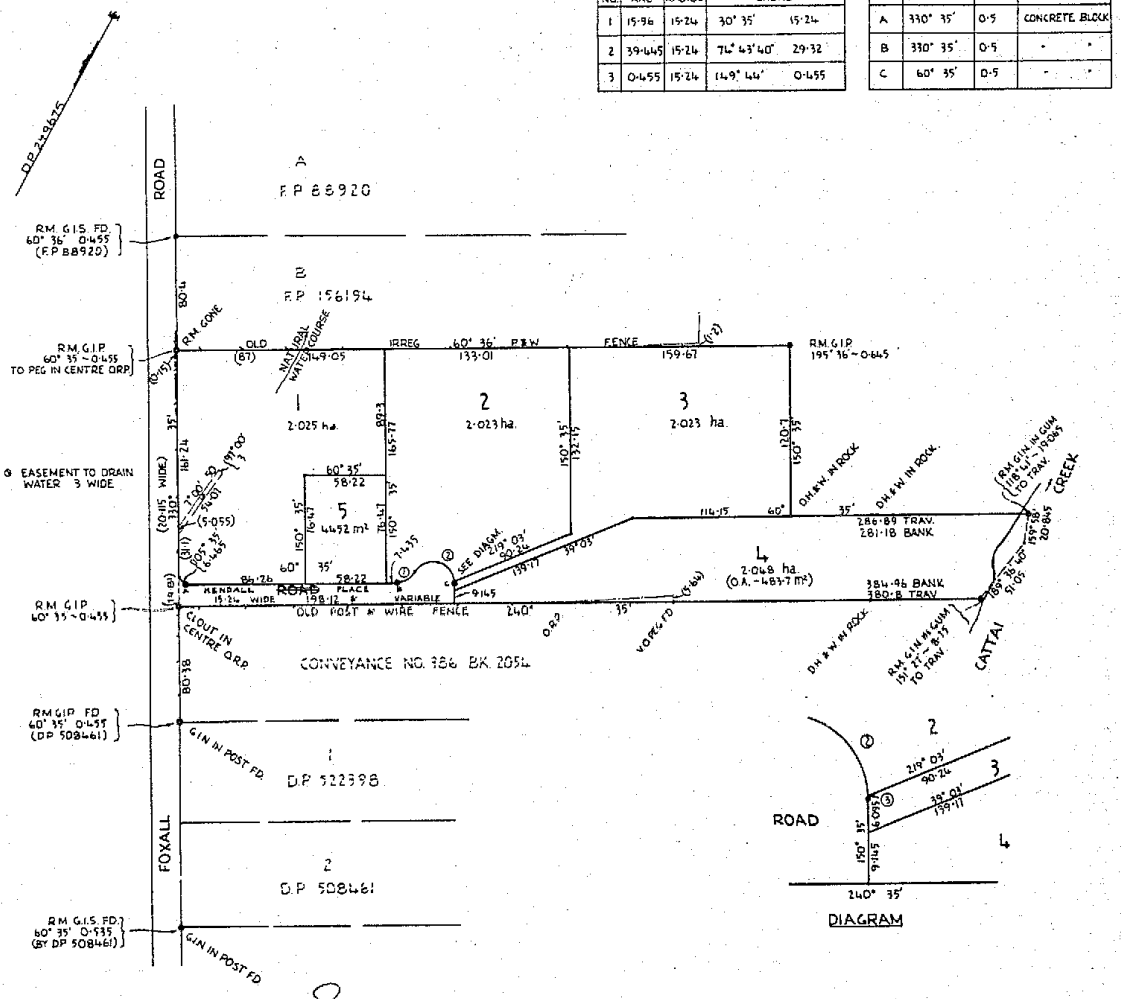
LENGTHS ARE IN METRES

SCHEDULE OF CURVED BOUNDARIES

NO.	ARC	RADIUS	CHORD	
1	15·96	15·24	30° 35'	15·24
2	39·445	15·24	74° 43' 40"	29·32
3	0·455	15·24	1° 49' 44"	0·455

SCHEDULE OF PERMANENT MARKS

COR.	BEARING	DIST.	FROM
A	330° 35'	0·5	CONCRETE BLOCK
B	330° 35'	0·5	" "
C	60° 35'	0·5	" "



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 3 in Deposited Plan 249675 at Kellyville in the Shire of Baulkham Hills Parish of Castle Hill and County of Cumberland being part of Portion 24 granted to Charles Roughley on 27-8-1861 and part of Portion 25 granted to Charlotte Whall on 27-8-1861.

FIRST SCHEDULE

~~WONGA PASTORAL DEVELOPMENT CO.PTY.LIMITED.~~

SECOND SCHEDULE

GRY

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Caution No.P346000 pursuant to Section 28J Real Property Act, 1900. 13.10.1975
3. Restriction as to user created by the registration of Deposited Plan 249675. See Book 3194 No.71.

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
John Michael Kaminski of Padstow, Cleaning Contractor and Marie Kaminski of Padstow, Widow as joint tenants	Transfer	Q868647	------	22-9-1978	

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Mortgage~~	~~Q79775~~	~~------~~	~~to G.G. & P.J. Hickman Pty. Limited~~	~~24-2-1977~~		Discharged	Q868646	
~~Caveat~~	~~Q847234~~	~~------~~	~~by John Michael Kaminski and Marie Kamiski~~	~~11-9-1978~~		Withdrawn	Q868645	
~~Mortgage~~	~~Q868648~~	~~------~~	~~to Joseph Gal of Greenacre, Serviceman and Victoria Elizabeth Gal his wife.~~	~~22-9-1978~~		Discharged	S138581	
Mortgage	S138582	- - - -	to AGC (Finance) Limited	5-11-1980				

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

Q79775M
CT 7/2/78
Q847234
Q868645
S138581DM
82m

CERTIFICATE OF TITLE

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

QUALIFIED TORRENS TITLE Register

IVA No.16910

Vol. 12842 Fol. 219

CANCELLED
Edition issued 7-8-1975
See new edition

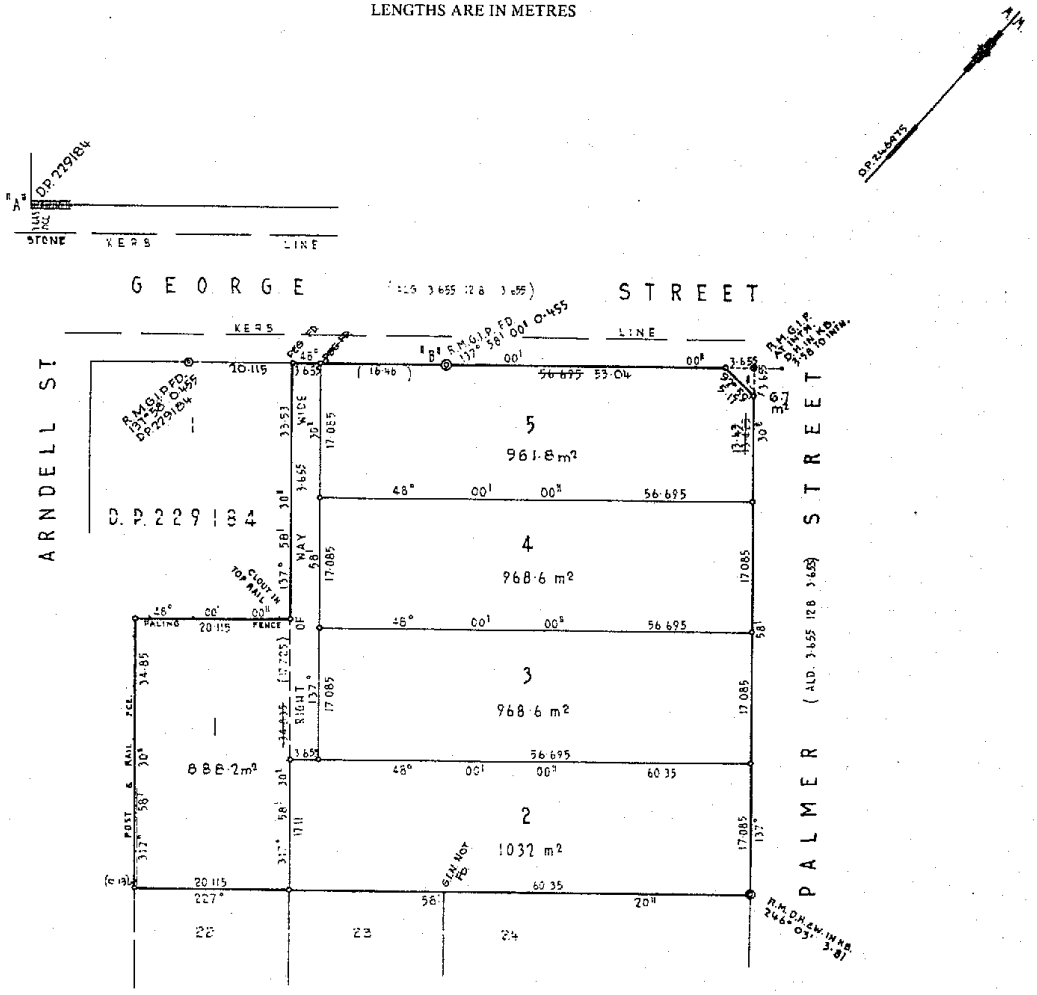
(Page 1) Vol. 12842 Fol. 219

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

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 3 in Deposited Plan 249675 at Kellyville in the Shire of Baulkham Hills Parish of Castle Hill and County of Cumberland being part of Portion 24 granted to Charles Roughley on 27-8-1861 and part of Portion 25 granted to Charlotte Whall on 27-8-1861.

FIRST SCHEDULE

WONGA PASTORAL DEVELOPMENT ~~COMPANY~~ CO. PTY.LIMITED.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Caution No.P346000 pursuant to Section 28J Real Property Act, 1900.
~~3. Caveat No.P346001 by the Registrar General.~~
4. Restriction as to user created by the registration of Deposited Plan 249675. See Book 3194 No.71.

Reg. Gen. 7-8-1975

Vol. 12842 Fol. 219

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
THIS EDITION HAVING ISSUED WITH AN INCORRECT DIAGRAM IS HEREBY CANCELLED REGISTRAR GENERAL CANCELLED See new edition issued 13-10-1975 Vol 12842 -219 REGISTRAR GENERAL					

1975M 1984
Reg. Gen
2-10-1975

SECOND SCHEDULE (continued)

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

(Page 2 of 2 pages)

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

RP13

TRANSFER

Real Property Act, 1900

I 038783 X

Office of State Revenue use only

OFFICE OF STATE REVENUE (N.S.W. TREASURY) 1992/93 P26 NO STAMP DUTY IS PAYABLE ON THIS INSTRUMENT

B

(A) **LAND TRANSFERRED**

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

FOLIO IDENTIFIER 3/249675

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
800P	P.W. SMYTH KING & SON SOLICITORS DX 621 SYDNEY PHONE 264-6272

REFERENCE (max. 15 characters):

(C) **TRANSFEROR** CAROL JANICE KAMINSKI

(D) acknowledges receipt of the consideration of $1-00

and as regards the land specified above transfers to the transferee an estate in fee simple one undivided one quarter share pursuant to Family Law Court Order dated 19 August, 1992.

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

(F) **TRANSFEREE**

T

JOHN MICHAEL KAMINSKI TCV

(G) as joint tenants/tenants in common

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. DATE 24/12/92

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

S. M. Duckmanton

Signature of Witness

HERBERT MARSELS IVANINS

Name of Witness (BLOCK LETTERS)

5 GLADSTONE PARADE RIVERSTONE

Address of Witness

C. J. Kaminski

Signature of Transferor

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

.....

Signature of Witness

.....

Name of Witness (BLOCK LETTERS)

.....

Address of Witness

S. Bradbury

Signature of Transferee's solicitor

Stephen Bradbury 22/12/92

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

CHECKED BY (office use only)

Pg 30 134

[redacted]

(3) CRD 180669

KAMINSKI

X688917

NEW SOUTH WALES $=0100 STAMP DUTY

TRANSFER

REAL PROPERTY ACT, 1900

T

9 2 of 2 1

$ 39.

R3/3

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Volume 12842 Folio 219	WHOLE	KELLYVILLE
NOW BEING WHOLE OF LAND COMPRISED IN FOLIO/C.T. 3/249675		

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

JOHN MICHAEL KAMINSKI and MARIE KAMINSKI

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 1.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

~~JOHN MICHAEL KAMINSKI, Cleaning Contractor, MARIE KAMINSKI, Widow and CAROL JANICE KAMINSKI, Married Woman, all of 4 Kendall Place, Kellyville~~

MARIE KAMINSKI of 4 Kendall Place, Kellyville, Widow as to one undivided share as tenant in common with JOHN MICHAEL KAMINSKI of 4 Kendall Place, Kellyville, Cleaning Contractor and CAROL JANICE KAMINSKI of the same place, his wife as joint tenants as to the other undivided share

OFFICE USE ONLY

OVER

TENANCY Note (e)

as ~~joint tenants~~/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. SUBJECT TO MORTGAGE S. 128582 TO A.G.C. (Finance) LIMITED.

2. _____ 3. Surplusage.

DATE 16-9-1985

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

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

Signature of Witness

Mervyn J Cathers.

Name of Witness (BLOCK LETTERS)

206 Old Castle Hill Road

Address and occupation of Witness

Castle Hill Solicitor

Signature of Transferor

Note (g)

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

Signature of Witness

Mervyn J Cathers.

Name of Witness (BLOCK LETTERS)

206 Old Castle Hill Road

Address and occupation of Witness

Castle Hill Solicitor

Signature of Transferee

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY

~~LODGED BY~~ ~~J Cathers Solicitor~~

STATE BANK OF N.S.W.

No. 1 ~~CROWN~~ ST SYDNEY ~~2000~~

PHONE 266 3333 EXT. 3322

DX 1334, ~~SYDNEY~~ ~~CASTLE HILL~~

LTD BOX 40L SYDNEY ~~NEW~~

Delivery Box Number

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In R.G.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed
Signed	Extra Fee

REGISTERED - -19

13 JUL 1988

Registrar General

Secondary Directions	
Delivery Directions	CT 40L

1983

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment by hand at the Registrar General's Office.

Typewriting and handwriting should be clear, legible and in permanent non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

If it is intended to create easements, covenants, &c., use forms RPI3A, RPI3B, RPI3C as appropriate.

Rule up all blanks.

The following instructions relate to the SIDE NOTES on the form.

(a) Description of land:

(i) TORRENS TITLE REFERENCE.—For a manual reference insert the Volume and Folio (e.g., Vol. 8514 Fol. 126)—For a computer folio insert the folio identifier (e.g., 12/701924).

(ii) PART/WHOLE.—If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919.

(iii) LOCATION.—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Show the full name of the transferor(s).

(c) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(d) Show the full name, address and occupation or description of the transferee(s).

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold.

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, lease, charge or writ to which this dealing is subject.

(g) Execution:

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.
(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he/she is personally known.
The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his/her firm), to be typewritten or printed adjacent to the signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No.

AUTHORITY (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)) the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A. for letters of administration, &c.

OFFICE USE ONLY

GOVERNMENT PRINTER IN AUSTRALIA L.O. 1341

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
3/249675	PROP	MARIE KAMINSKI in ½ share AND JOHN MICHAEL KAMINSKI and CAROL JANICE KAMINSKI as joint tenants in ½ share AS TENANTS IN COMMON

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS

PLAN FORM 2

Plan Drawing only to appear in this space

• OFFICE USE ONLY

D. P. 249675

Signatures and seals only.

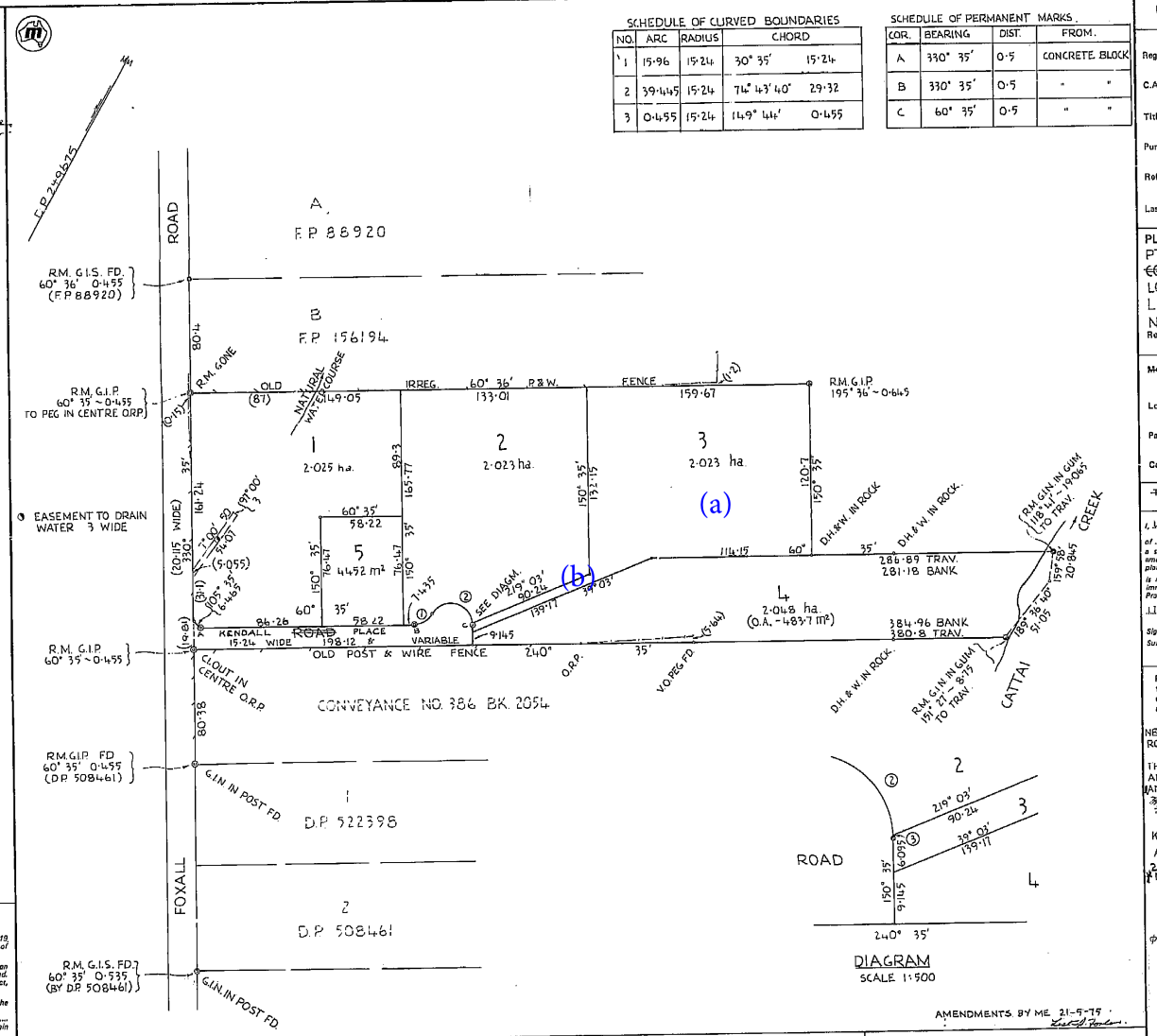
Common Seal

DIRECTOR

SECRETARY

SCHEDULE OF CURVED BOUNDARIES			
NO.	ARC	RADIUS	CHORD
1	15·96	15·24	30° 35′ 15·24
2	39·445	15·24	74° 43′ 40″ 29·32
3	0·455	15·24	149° 46′ 0·455

SCHEDULE OF PERMANENT MARKS			
COR.	BEARING	DIST.	FROM.
A	330° 35′	0·5	CONCRETE BLOCK
B	330° 35′	0·5	" "
C	60° 35′	0·5	" "



AMENDMENTS BY ME. 21-9-79

Registered: 24.6.1975

C.A.: Nº. 4960 OF 5-2-1975

Title System: OLD SYSTEM

Purpose: SUBDIVISION

Ref. Map: BAULKHAM HILLS SH 42 ~~CCC 24-11~~

Last Plan: D. P. 156194

PLAN OF SUBDIVISION OF PT. POR. 25 ~~BEING LAND IN CONV. NO. 520 BK. 2102~~ AND LOT C F.P. 156194, BEING LAND IN CONVEYANCE NO. 777 BK. 2999

Reduction Ratio 1: 2000

Lengths are in metres.

Mun./Shire ~~City~~ BAULKHAM HILLS

Locality: KELLYVILLE

Parish: CASTLE HILL

County: CUMBERLAND

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

I, LESTER JOHN FORBES C/- H RAMSAY of 148-50 GEORGE ST., PARRAMATTA a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made *(1) ~~by me~~ (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on 1

11TH OCTOBER 1971.

Signature

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth 'X' — 'Y'
*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

IT IS INTENDED TO DEDICATE THE NEW ROAD TO THE PUBLIC AS PUBLIC ROAD

2 PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE AN EASEMENT TO DRAIN WATER 3 m. WIDE.

3 IT IS INTENDED TO DEDICATE KENDALL PLACE TO THE PUBLIC AS PUBLIC ROAD.

4 RESTRICTIONS AS TO USER.

5 COPY OF INSTRUMENT FILED AS BOOK 3194 NO. 71.

SURVEYOR'S REFERENCE: 190/73/1

Council Clerk's Certificate

I hereby certify that —

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

*(b) the requirements of section 340 of the †Metropolitan Water, Sewerage and Drainage Act, 1924, as amended. †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed SUBDIVISION [insert "new road", "subdivision" or "consolidated lot"] set out herein

Subdivision No. 4960

Date 5-2-75.

(Signature) Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

MPD

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 25th day of June, 1975.

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/7/2021 10:15AM

FOLIO: 3/249675

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 12842 FOL 219

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
13/11/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
13/7/1988	X688915	REQUEST	
13/7/1988	X688916	DISCHARGE OF MORTGAGE	
13/7/1988	X688917	TRANSFER	EDITION 1
14/2/1992	E256074	MORTGAGE	
14/2/1992	E256075	MORTGAGE	EDITION 2
12/1/1993	I38781	DISCHARGE OF MORTGAGE	
12/1/1993	I38782	DISCHARGE OF MORTGAGE	
12/1/1993	I38783	TRANSFER	
12/1/1993	I38784	MORTGAGE	EDITION 3
23/2/1995	O40509	DISCHARGE OF MORTGAGE	
23/2/1995	O40510	TRANSFER	
23/2/1995	O40511	MORTGAGE	EDITION 4
17/9/1999	6205974	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	EDITION 5
7/10/1999	6248047	DISCHARGE OF MORTGAGE	
7/10/1999	6248048	MORTGAGE	EDITION 6
24/3/2003	9473156	DISCHARGE OF MORTGAGE	
24/3/2003	9473157	MORTGAGE	EDITION 7
25/9/2017	AM751349	DISCHARGE OF MORTGAGE	EDITION 8
12/7/2021	AR230778	CAVEAT	

*** END OF SEARCH ***

advlegs PRINTED ON 27/7/2021

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 3/249675

SEARCH DATE	TIME	EDITION NO	DATE
27/7/2021	10:15 AM	8	25/9/2017

LAND

LOT 3 IN DEPOSITED PLAN 249675
AT KELLYVILLE
LOCAL GOVERNMENT AREA THE HILLS SHIRE
PARISH OF CASTLE HILL COUNTY OF CUMBERLAND
TITLE DIAGRAM DP249675

FIRST SCHEDULE

GEOFFREY RAYMOND MORGANS
DIANNE MARGARET MORGANS
AS JOINT TENANTS (T O40510)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP249675 RESTRICTION(S) ON THE USE OF LAND
* 3 AR230778 CAVEAT BY ALLAM LAND NO. 14 PTY LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

advlegs PRINTED ON 27/7/2021

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

PLANNING CERTIFICATE UNDER SECTION 10.7 (2)

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AS AMENDED.

Certificate Number:	**113322**
Reference:	AH:198665
Issue Date:	27 July 2021
Receipt No:	6625646
Fee Paid:	$ 53.00

ADDRESS:	9 Palaran Avenue, NORTH KELLYVILLE NSW 2155
DESCRIPTION:	Lot 3 DP 249675

The land is zoned:
Zone E4 Environmental Living
Zone R2 Low Density Residential

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

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

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

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

1. Names of relevant planning instruments and DCPs

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

(A) **Local Environmental Plans**

The Hills Local Environmental Plan 2019 does not apply to the carrying out of development on the land.

State Environmental Planning Policies

SEPP No.19 - Bushland In Urban Areas
SEPP No.21 - Caravan Parks
SEPP No.33 - Hazardous And Offensive Development
SEPP No.50 - Canal Estate Development
SEPP No.55 - Remediation Of Land
SEPP No.64 - Advertising And Signage
SEPP No.65 - Design Quality Of Residential Apartment Development
SEPP No.70 - Affordable Housing (Revised Schemes)
SEPP (Building Sustainability Index: Basix) 2004
SEPP (State Significant Precincts) 2005
SEPP (Mining, Petroleum Production And Extractive Industries) 2007
SEPP (Miscellaneous Consent Provisions) 2007
SEPP (Infrastructure) 2007
SEPP (Exempt and Complying Development Codes) 2008
SEPP (Affordable Rental Housing) 2009
SEPP (State and Regional Development) 2011

SEPP (Sydney Region Growth Centres) 2006
(refer www.legislation.nsw.gov.au)

SEPP (Vegetation in Non-Rural Areas) 2017
SEPP (Educational Establishments and Child Care Facilities) 2017
SEPP (Primary Production and Rural Development) 2019

Sydney Regional Environmental Plan No. 9 Extractive Industry (No.2 - 1995)
Sydney Regional Environmental Plan No. 20 Hawkesbury – Nepean River (No.2 – 1997)

SEPP (Western Sydney Aerotropolis) 2020

The following SEPP's may apply to the land. Please refer to **'Land to which Policy applies'** for each individual SEPP.

SEPP (Housing For Seniors Or People With A Disability) 2004

(2) The name of each **proposed environmental planning instrument** that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Secretary has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved).

(A) **Proposed Local Environmental Plans**

No Proposed Local Environmental Plans apply to this land.

(B) **Proposed State Environmental Planning Policies**

Draft State Environmental Planning Policy (Environment)
Draft Remediation of Land State Environmental Planning Policy
Draft State Environmental Planning Policy (Short-term Rental Accommodation) 2019
Draft Activation Precincts State Environmental Planning Policy
Draft Housing Diversity State Environmental Planning Policy
Proposed Amendment to State Environmental Planning Policy (Sydney Region Growth Centres) 2006.

Refer Attachment 1(2)(C)

(3) The name of each development control plan that applies to the carrying out of development on the land.

The Hills Development Control Plan 2012

North Kellyville Development Control Plan (http://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/North-West-Priority-Growth-Area/North-Kellyville)

(4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument.

2. Zoning and land use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP).

(A) The Hills Local Environmental Plan 2019 applies to the land unless otherwise stated in this certificate and identifies the land to be:

The Hills Local Environmental Plan 2019 does not apply. Refer Part 2A of this Certificate.

(B) The purposes for which the instrument provides that development may be carried out within the zone without development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Exempt Development

(C) The purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Complying Development

(D) The purposes for which the instrument provides that development is prohibited in the zone:

Refer Attachment 2(B)

(E) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed?

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

(F) Whether the land includes or comprises critical habitat?

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

(G) Whether the land is in a conservation area (however described)?

The Hills Local Environmental Plan 2019?

NO

Any Other Planning Proposal?

NO

(H) Whether an item of environmental heritage (however described) is situated on the land?

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

2A. Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

To the extent that the land is within any zone (however described) under:

(a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (the 2006 SEPP), or*

(b) a Precinct Plan (within the meaning of the 2006 SEPP), or

(c) a proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the ACT.

(A) State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan) applies to the land unless otherwise stated in this certificate and identifies the land to be:

Zone E4 Environmental Living
Zone R2 Low Density Residential

Proposed Amendment to State Environmental Planning Policy (Sydney Region Growth Centres) 2006 - North Kellyville Precinct Plan applies to the land and identifies the land to be:

Zone R2 Low Density Residential
Zone E4 Environmental Living

Refer Attachment 1(2)(B)

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan) applies to the land unless otherwise stated in this certificate and identifies the land to be:

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan) does not apply.

Note: This precinct plan applies to land within the Box Hill Precinct or Box Hill Industrial Precinct.

(B) The purposes for which the instrument provides that development may be carried out within the zone without development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Exempt Development.

(C) The purposes for which the instrument provides that development may not be carried out within the zone except with development consent:

Refer Attachment 2(B)

Also refer to the applicable instrument for provisions regarding Complying Development

(D) The purposes for which the instrument provides that development is prohibited in the zone:

Refer Attachment 2(B)

(E) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed?

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan)?

YES

Part 4 **Principal development standards** of State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan) provides, in part, minimum land dimensions for the erection of a dwelling house on land zoned R1 General Residential, R2 Low Density Residential or R3 Medium Density Residential.

Any amendments to Proposed State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan)?

Refer Attachment 1(2)(B)

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan)?

NO

Any amendments to Proposed State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan)?

NO

(F) Whether the land includes or comprises critical habitat?

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan)?

NO

(G) Whether the land is in a conservation area (however described)?

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan)?

NO

(H) Whether an item of environmental heritage (however described) is situated on the land?

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct Plan)?

NO

State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 11 The Hills Growth Centre Precincts Plan)?

NO

3. Complying Development

(1) The extent to which the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1)

(c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

(2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

Housing Code, Rural Housing Code, Low Rise Housing Diversity Code and Greenfield Housing Code
Complying Development under the Housing Code, Rural Housing Code, Low Rise Housing Diversity Code and Greenfield Housing Code **may be** carried out on the land.

Housing Alterations Code and General Development Code
Complying Development under the Housing Alterations Code and General Development Code **may be** carried out on the land.

Commercial and Industrial (New Buildings and Additions) Code
Complying Development under the Commercial and Industrial (New Buildings and Additions) Code **may be** carried out on the land.

Commercial and Industrial Alterations, Container Recycling Facilities, Subdivision, Demolition and Fire Safety Codes
Complying Development under the Commercial and Industrial Alterations, Container Recycling Facilities, Subdivision, Demolition and Fire Safety Codes **may be** carried out on the land.

Note: Where reference is made to an applicable map, this information can be sourced from the following websites:

The Hills Local Environmental Plan 2019 - www.thehills.nsw.gov.au
State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Appendix 2 North Kellyville Precinct) or (Appendix 11 The Hills Growth Centre Precincts Plan) – http://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/North-West-Priority-Growth-Area

4, 4A **(Repealed)**

4B. **Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works**

Whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

NO

Note. "Existing coastal protection works" are works to reduce the impact of coastal hazards on land (such as seawalls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the *Local Government Act 1993*.

5. **Mine subsidence**

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Coal Mine Subsidence Compensation Act 2017*?

NO

6. Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under -

(A) Division 2 of Part 3 of the *Roads Act 1993*; or

NO

(B) any environmental planning instrument; or

NO

(C) any resolution of council?

a) The Hills Development Control Plan 2012?

NO

b) Any other resolution of council?

NO

7. Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

(a) adopted by council, or

(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding)?

Council's policies on hazard risk restrictions are as follows:

(i) Landslip

a) By The Hills Local Environmental Plan 2019 zoning?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

b) By The Hills Local Environmental Plan 2019 local provision?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

c) By The Hills Development Control Plan 2012 provision?

NO

No resolution has been adopted but attention is directed to the fact that there are areas within the Shire liable to landslip.

(ii) Bushfire

YES

Please note this is a statement of policy only and NOT a statement on whether or not the property is affected by bushfire. That question is answered in Section 11 of this certificate.

The NSW Rural Fire Service Guidelines entitled 'Planning for Bushfire Protection 2018'. Development subject to bushfire risk will be required to address the requirements in these guidelines and can be downloaded off the RFS web site www.rfs.nsw.gov.au

The Development Control Plan may also contain provisions for development on Bushfire Prone Land and Bushfire Hazard Management. Refer Part 1(3) of this certificate for the applicable Development Control Plan.

(iii) Tidal inundation

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by tidal inundation.

(iv) Subsidence

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by subsidence.

(v) Acid sulphate soils

NO

(vi) Land contamination

NO

Please note this is a statement of Council policy only and NOT a statement on whether or not the property is affected by contamination or potential contamination.

(vii) Any other risk

NO

7A. Flood related development controls

(1) If the land or part of the land is within the flood planning area and subject to flood related development controls.

NO

(2) If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.

UNKNOWN
Please contact Council's Waterways team on 9843 0555 for information on the flood planning area and probable maximum flood.

(3) In this clause—
***flood planning area* has the same meaning as in the Floodplain Development Manual.**
***Floodplain Development Manual* means the *Floodplain Development Manual* (ISBN 0 7347 5476 0) published by the NSW Government in April 2005.**
***probable maximum flood* has the same meaning as in the Floodplain Development Manual.**

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

The Hills Local Environmental Plan 2019?

NO

Any other Planning Proposal?

NO

State Environmental Planning Policy?

NO

Proposed State Environmental Planning Policy?

NO

9. Contributions plans

The name of each contributions plan applying to the land:

13 - NORTH KELLYVILLE
THE HILLS SECTION 7.12

9A. Biodiversity certified land

Whether the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*?

YES

The land is identified as a certified area on the North West Growth Centre – Biodiversity Certification map. This is the map referred to in the Biodiversity Certification Order conferred on State Environmental Planning Policy (Sydney Region Growth Centres) 2006.

Note: Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

10. Biodiversity stewardship sites

Whether the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* (but only if the council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage)?

NO

Note: Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016*.

10A. Native vegetation clearing set asides

Whether the land contains a set aside area under section 60ZC of the *Local Land Services Act 2013* (but only if the council has been notified of the existence of the set aside area by Local Land Services or it is registered in the public register under that section)?

NO

11. Bush fire prone land

Has the land been identified as bush fire prone land?

YES

The land is identified on Council's certified Bush Fire Prone Land map as being partly or wholly bush fire prone land. For details refer to the Bush Fire Prone Land map that can be viewed on Council's website at www.thehills.nsw.gov.au

12. Property vegetation plans

Has the council been notified that a property vegetation plan approved under Part 4 of the *Native Vegetation Act 2003* (and that continues in force) applies to this land?

NO

13. Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on this land (but only if the council has been notified of the order)?

NO

14. Directions under Part 3A

Whether there is a direction by the Minister in force under section 75P (2)(c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect?

NO

15. Site compatibility certificates and conditions for seniors housing

(a) Whether there is a current site compatibility certificate (seniors housing) of which council is aware, issued under *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* in respect of proposed development on the land?

NO

(b) Whether there are any terms of a kind referred to in clause 18(2) of *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land?

NO

16. Site compatibility certificates for infrastructure, schools or TAFE establishments

Whether there is a valid site compatibility certificate (infrastructure) or site compatibility certificate (schools or TAFE establishments), of which the council is aware, in respect of proposed development on the land?

NO

17. Site compatibility certificates and conditions for affordable rental housing

(1) Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land?

NO

(2) Whether there are any terms of a kind referred to in clause 17(1) or 38(1) of *State Environmental Planning Policy (Affordable Rental Housing) 2009* that have been imposed as a condition of consent to a development application in respect of the land?

NO

18. Paper subdivision information

(1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

NO DEVELOPMENT PLAN APPLIES

(2) The date of any subdivision order that applies to the land.

NO SUBDIVISION ORDER APPLIES

(3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

19. Site verification certificates

Whether there is a current site verification certificate, of which the council is aware, in respect of the land?

NO

Note. A site verification certificate sets out the Secretary's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land - see Division 3 of Part 4AA of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.*

20. Loose-fill asbestos insulation

Does the land include any residential premises (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989*) that is listed on the Loose-Fill Asbestos Insulation Register that is required to be maintained under that Division?

Council has **not** been notified by NSW Fair Trading that the land includes any residential premises that are listed on the register. Refer to the NSW Fair Trading website at www.fairtrading.nsw.gov.au to confirm that the land is not listed on this register.

Note: There is potential for loose-fill asbestos insulation in residential premises that are not listed on the Register. Contact NSW Fair Trading for further information.

21. Affected building notices and building product rectification orders

(1) Whether there is any affected building notice of which the council is aware that is in force in respect of the land?

NO

(2) (a) Whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with?

NO

(b) Whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding?

NO

(3) In this clause:

affected building notice has the same meaning as in Part 4 of the *Building Products (Safety) Act 2017*.
building product rectification order has the same meaning as in the *Building Products (Safety) Act 2017*.

22. State Environmental Planning Policy (Western Sydney Aerotropolis) 2020

For land to which State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 applies, whether the land is—

(a) in an ANEF or ANEC contour of 20 or greater as referred to in clause 19 of that Policy, or

NO

(b) shown on the Lighting Intensity and Wind Shear Map under that Policy, or

NO

(c) shown on the Obstacle Limitation Surface Map under that Policy, or

NO

(d) in the "public safety area" on the Public Safety Area Map under that Policy, or

NO

(e) in the "3 kilometre wildlife buffer zone" or the "13 kilometre wildlife buffer zone" on the Wildlife Buffer Zone Map under that Policy.

NO

Note. The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

NO

(b) that the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

NO

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,

NO

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of the Act – if it is subject to such an order at the date when the certificate is issued,

NO

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of the Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

NO

THE HILLS SHIRE COUNCIL

MICHAEL EDGAR
GENERAL MANAGER

Per:

PLEASE NOTE: COUNCIL RETAINS THE ELECTRONIC ORIGINAL OF THIS CERTIFICATE. WHERE THIS CERTIFICATE REFERS TO INFORMATION DISPLAYED ON COUNCIL'S WEBSITE OR TO ANY EXTERNAL WEBSITE, IT REFERS TO INFORMATION DISPLAYED ON THE WEBSITE ON THE DATE THIS CERTIFICATE IS ISSUED.

ATTACHMENT 1(2)(C)

The North West Priority Growth Area Land Use and Infrastructure Implementation Plan

The North West Priority Growth Area Land Use and Infrastructure Implementation Plan was released for public exhibition on Monday 15 May 2017. The Implementation Plan updates the planning framework for the North West Priority Growth Area (formally known as the North West Growth Centre) in light of the extent of urban development and demand for housing that has occurred since the release of the North West Growth Centre Structure Plan in 2006.

The Implementation Plan would be brought into effect by amendments to State Environmental Planning Policy (Sydney Region Growth Centres) 2006, associated Development Control Plans and Section 117 Ministerial Direction.

The key proposed changes to State Environmental Planning Policy (Sydney Region Growth Centres) 2006 for North Kellyville and Box Hill include:

- Introduction of minimum and maximum densities for all residential areas that have been rezoned under the SEPP; and

- Set minimum subdivision lot sizes in all residential areas that have been rezoned under the SEPP and some residential land uses consistent with the standard instrument Local Environmental Plan.

NOTE: The above details are in keeping with the exhibited planning proposal. Please note that changes to the proposal may be made post exhibition. The current status and details of the proposal can be viewed at NSW Department of Planning & Environment at **http://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/North-West-Growth-Area/Key-actions-and-documents**

ATTACHMENT 2(B)

STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 (APPENDIX 2 NORTH KELLYVILLE PRECINCT)

Zone E4 Environmental Living

1 Objectives of zone

- To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.
- To ensure that residential development does not have an adverse effect on those values.

2 Permitted without consent

Home occupations

3 Permitted with consent

Bed and breakfast accommodation; Drainage; Dual occupancies; Dwelling houses; Earthworks; Electricity generating works; Environmental facilities; Environmental protection works; Flood mitigation works; Group homes; Health consulting rooms; Home businesses; Home industries; Horticulture; Recreation areas; Recreation facilities (outdoor); Roads; Swimming pools; Water recreation structures; Water recycling facilities; Waterbodies (artificial)

4 Prohibited

Industries; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3

NOTE: This land use table should be read in conjunction with the Dictionary at the end of STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 which defines words and expressions for the purpose of the plan.

NOTE: Activities permitted without development consent are still subject to other provisions in Environmental Planning Instruments and/or Acts.

ATTACHMENT 2(B)
STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 (APPENDIX 2 NORTH KELLYVILLE PRECINCT)

Zone R2 Low Density Residential

1 Objectives of zone

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a variety of housing types but primarily low density detached housing.
- To support the well being of the community, including educational, recreational, community, religious and other activities if there will be no adverse effect on the amenity of the proposed or existing nearby residential development.

2 Permitted without consent

Home occupations

3 Permitted with consent

Centre-based child care facilities; Community facilities; Drainage; Dual occupancies; Dwelling houses; Earthworks; Educational establishments; Environmental protection works; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Home businesses; Information and education facilities; Recreation areas; Respite day care centres; Roads; Secondary dwellings; Semi-detached dwellings; Seniors housing; Studio dwellings; Water recycling facilities; Waterbodies (artificial).

4 Prohibited

Any development not specified in item 2 or 3.

NOTE: This land use table should be read in conjunction with the Dictionary at the end of STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 which defines words and expressions for the purpose of the plan.

NOTE: Activities permitted without development consent are still subject to other provisions in Environmental Planning Instruments and/or Acts.

ATTACHMENT 2(B1)

A **proposed environmental planning instrument** applies to the land and identifies the land to be:
STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 (APPENDIX 2 NORTH KELLYVILLE PRECINCT)

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- To provide for a variety of housing types but primarily low density detached housing.
- To support the well being of the community, including educational, recreational, community, religious and other activities if there will be no adverse effect on the amenity of the proposed or existing nearby residential development.

2 Permitted without consent

Home occupations

3 Permitted with consent

Centre-based child care facilities; Community facilities; Drainage; Dual occupancies; Dwelling houses; Earthworks; Educational establishments; Environmental protection works; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Home businesses; Information and education facilities; Recreation areas; Respite day care centres; Roads; Secondary dwellings; Semi-detached dwellings; Seniors housing; Studio dwellings; Water recycling facilities; Waterbodies (artificial).

4 Prohibited

Any development not specified in item 2 or 3.

NOTE: This land use table should be read in conjunction with the Dictionary at the end of STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 which defines words and expressions for the purpose of the plan.

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A **proposed environmental planning instrument** applies to the land and identifies the land to be:
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1 Objectives of zone

- To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.
- To ensure that residential development does not have an adverse effect on those values.

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Home occupations

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Bed and breakfast accommodation; Drainage; Dual occupancies; Dwelling houses; Earthworks; Electricity generating works; Environmental facilities; Environmental protection works; Flood mitigation works; Group homes; Health consulting rooms; Home businesses; Home industries; Horticulture; Recreation areas; Recreation facilities (outdoor); Roads; Swimming pools; Water recreation structures; Water recycling facilities; Waterbodies (artificial)

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Industries; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3

NOTE: This land use table should be read in conjunction with the Dictionary at the end of STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 which defines words and expressions for the purpose of the plan.

NOTE: Activities permitted without development consent are still subject to other provisions in Environmental Planning Instruments and/or Acts.

Search results

Your search for: LGA: THE HILLS SHIRE COUNCIL

Matched 5 notices relating to 1 site.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
KENTHURST	137 Annangrove ROAD	Annangrove Climbers	5 former

Page 1 of 1

30 July 2021

WaterNSW

home help contact customise

State Overview
State Overview

Rivers and Streams
favourites search
download sites
find a site
Real Time Data - ...

Daily River Reports
Daily River Reports

Dams
favourites search
download sites
find a site
Real Time Data - ...

Groundwater (Telemetered data)
favourites search
download sites

contact WaterNSW

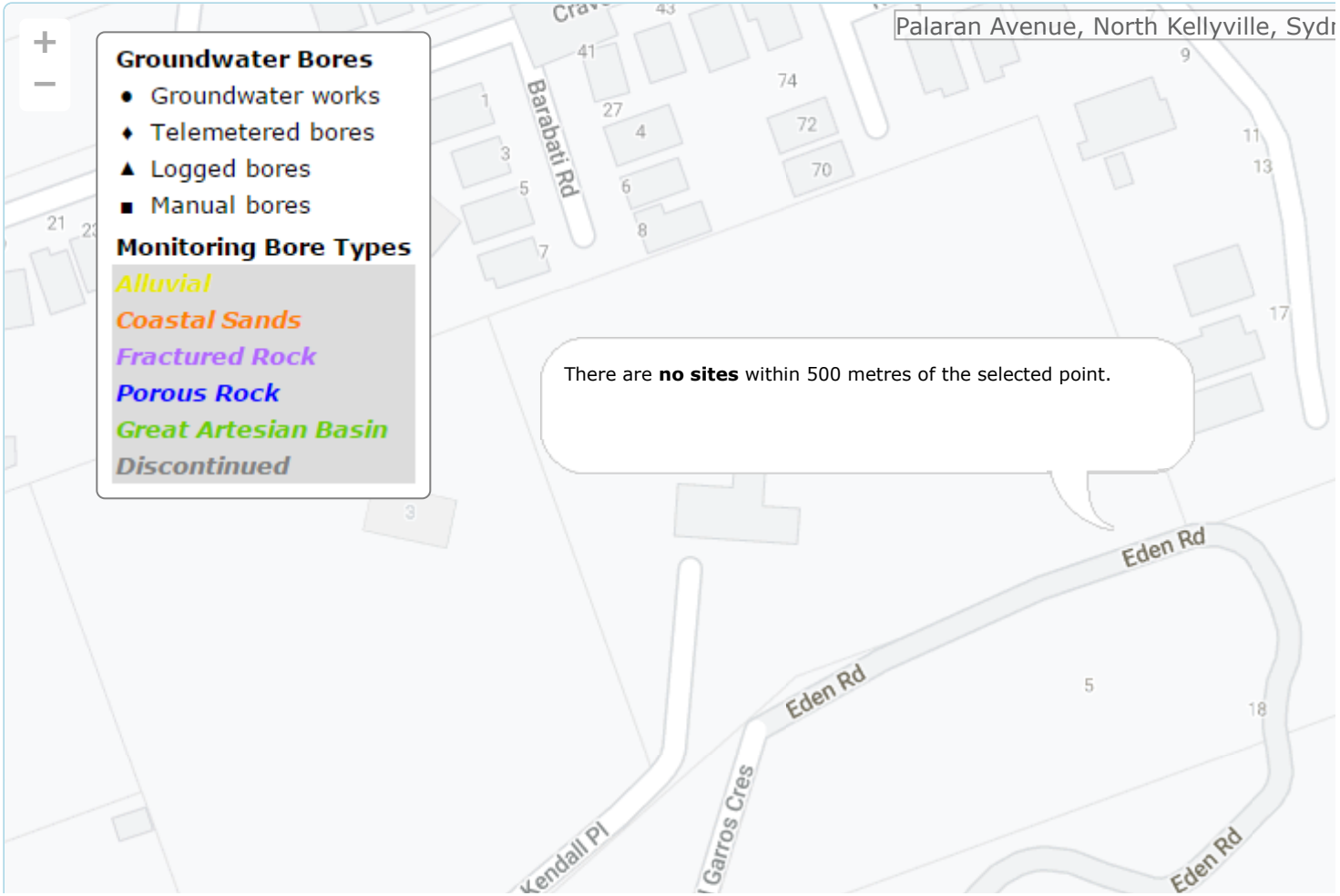
All Groundwater Site Details

ALL GROUNDWATER MAP

bookmark this page

All data times are Eastern Standard Time

Map Info



Public registers

– POEO Public Register

- Licences, applications and notices search
- Penalty notices search
- Enforceable undertakings search
- Enforceable undertakings media releases
- Exemptions and approvals search
- Prosecutions or civil proceedings search
- Terms of use: POEO public register
- Licensing FAQs
- List of licences
- Unlicensed premises regulated by the EPA

+ Contaminated land record of notices

Dangerous goods licences

Pesticide licences

Radiation licences

Search results

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

Suburb - north Kellyville

returned 0 result

Search Again

HISTORICAL AERIAL IMAGERY

P33391.1_R01

9 Palaran Avenue, North Kellyville


2015
Cattai Creek
Palaran Ave


2007
Cattai Creek
Palaran Ave


2004
Cattai Creek


1994


1991


1975

B

APPENDIX B

Field Test-pit Summary Logs

P33391.1_R01
ROBERT MOORE AND ASSOCIATES
9 Palaran Avenue
NORTH KELLYVILLE, NSW.
Date of Field Works: **3/08/2021**

TP1			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2	0.1-0.2	Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm	
0.2-0.5		Silty, Sandy, CLAY, brown, moist, stiff	
0.5-0.7		Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ **0.7m *bgl***			

TP2			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5	0.2-0.3	Fill: Shaley, CLAY, grey, moist, stiff	<1% Foreign inclusions observed within soil profile such as concrete (0.0-0.5)
0.5-0.7		Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm	
0.7-0.9		Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ **0.9m *bgl***			

TP3			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-1.0	0.2-0.3	Fill: Shaley, CLAY, grey, moist, stiff	2-3% Foreign inclusions observed within soil profile such as concrete, plastic and tile. (0.0-0.5)
1.0-1.3		Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ **1.3m *bgl***			

TP4			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.9	0.2-0.3	Fill: Shaley, CLAY, grey, moist, stiff	<2% Foreign inclusions observed within soil profile such as concrete, glass, brick, cloth, and tile. (0.0-0.9)
0.9-1.1		Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ **1.1m *bgl***			

TP5			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.7	0.2-0.3	Fill: Shaley, CLAY, grey, moist, stiff	>2% Foreign inclusions observed within soil profile such as concrete and brick. (0.0-0.7)
0.7-0.9		Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.9m bgl***			

TP6			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1	**0.0-0.1**	Fill: Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm	Traces of clay tile observed in soil profile (0.0-0.1)
0.1-0.3		Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm	
0.3-0.5		Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.5m bgl***			

TP7			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3 0.3-0.5 0.5-0.7	0.1-0.2	FILL: Silty, CLAY, brown, red, grey, moist, stiff Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.7m bgl***			

TP8			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.5 0.5-1.3		FILL: Gravelly CLAY, brown, moist, stiff Silty, CLAY, traces of gravel, brown, yellow, moist, stiff Gravelly, Silty, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***1.3m bgl***			

TP9			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm Gravelly, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP10			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm Gravelly, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP11			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3 0.3-0.5		Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm Gravelly, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.5m bgl***			

TP12			
Depth (m)	**Sample**	**Description**	**Additional Observations**
Surface 0.0-0.3 0.3-0.5		 Topsoil: Sandy Silty CLAY; low plasticity, brown to dark brown, moist, firm Gravelly, Sandy, CLAY, brown, moist, stiff	Collections of surface debris within vicinity (metal, timber, masonry)
Test Pit Terminated @ ***0.5m bgl***			

TP13			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.1-0.2	Fill: Shaley, CLAY, grey, moist, stiff Silty CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP14			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-1.0 1.0-1.3	0.4-0.5	FILL: Gravelly, Sandy, CLAY, brown, grey, moist, stiff Gravelly, Silty, CLAY, brown/yellow, moist, stiff	
Test Pit Terminated @ ***1.3m bgl***			

TP15			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-1.0 1.0-1.3	0.3-0.4	FILL: Gravelly, Sandy, CLAY, brown/grey, moist, stiff Gravelly, Silty, CLAY, brown/yellow, moist, stiff	
Test Pit Terminated @ ***1.3m bgl***			

TP16			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.05 0.05-0.2		FILL; Sandy, GRAVEL, brown, moist, firm Gravelly, Silty, CLAY, brown, yellow, moist, firm	Minor foreign inclusions observed within soil profile such as asphalt. (0.0-0.05)
Test Pit Terminated @ ***0.2m bgl***			

TP17			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3		Gravelly, Silty, CLAY, brown, yellow, moist, firm	
Test Pit Terminated @ ***0.3m bgl***			

TP18			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3		Gravelly, Silty, CLAY, brown, yellow, moist, firm	
Test Pit Terminated @ ***0.3m bgl***			

TP19			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3		Gravelly, Silty, CLAY, brown, yellow, moist, firm	
Test Pit Terminated @ ***0.3m bgl***			

TP20			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.8 0.8-1.2 1.2-1.4 1.4- refusal		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, traces of gravel, brown, moist, stiff Silty, CLAY, brown, yellow, grey, moist, stiff Extremely weathered SANDSTONE, white Distinctly weathered SANDSTONE, white	
Test Pit Terminated @ ***1.4m bgl***			

TP21			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3 m bgl***			

TP22			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, traces of gravel, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP23			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Sandy, CLAY, traces of gravel, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP24			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3	0.0-0.1	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown, grey moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP25			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP26			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.7 0.7-0.9	0.2-0.3	FILL: Sandy, Silty, CLAY, traces of gravel, brown, moist, firm Silty, Sandy, CLAY, brown, moist, firm	
Test Pit Terminated @ ***0.9m bgl***			

TP27			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3 0.3-0.6 0.6-0.8	0.2-0.3	FILL: Shaley, CLAY, grey, moist, stiff Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.8m bgl***			

TP28			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.4 0.4-0.6	0.1-0.2	FILL; Sandy, CLAY, brown, moist, stiff Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.6m bgl***			

TP29			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP30			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP31			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP32			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3	0.1-0.2	FILL: Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, moist, stiff	>2% Foreign inclusions observed within soil profile such as brick. (0.0-0.1)
Test Pit Terminated @ ***0.3m bgl***			

TP33			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.1 0.1-0.3		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.3m bgl***			

TP34			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP35			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP36			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP37			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP38			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4	0.0-0.1	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

TP39			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.3 0.3-0.5	0.1-0.2	Fill: SHALE, Grey Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, CLAY, brown/yellow, moist, stiff	
Test Pit Terminated @ ***0.5m bgl***			

TP40			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.8 0.8	0.0-0.1	Fill: Sandy, SILT, brown/dark brown, moist, stiff Silty, CLAY, brown, grey, moist, stiff Disturbed, Weathered Sandstone, grey	>5% Foreign inclusions observed within soil profile such as brick and glass. (0.0-0.2)
Test Pit Terminated @ ***0.8m bgl***			

TP41			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 0.5-0.7	0.1-0.2	Fill: Sandy, CLAY, brown, moist, stiff Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.7m bgl***			

TP42			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 0.5-0.7	0.2-0.3	Fill: Sandy, CLAY, brown, moist, stiff Silty, Sandy, CLAY, brown, yellow, moist, stiff	
Test Pit Terminated @ ***0.7m bgl***			

TP43			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.3 0.3-0.5	0.1-0.2	Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.5m bgl***			

TP44			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.2 0.2-0.4		Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm Silty, Sandy, CLAY, brown, moist, stiff	
Test Pit Terminated @ ***0.4m bgl***			

SP1			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 (agl)		Fill: Sandy, Gravelly, Grey, moist, stiff	>2-5% of foreign inclusions observed within soil profile such as brick, concrete and metal. (0.0-0.5)
Test Pit Terminated @ ***0.5m from surfaces***			

SP2			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 (agl)		Fill: Sandy, Gravelly, Grey, moist, stiff	5% of foreign inclusions observed within soil profile such as brick, concrete and metal. (0.0-0.5)
Test Pit Terminated @ ***0.5m from surfaces***			

SP3			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 (agl)		Fill: Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm	Foreign inclusions observed within soil profile such as tile. (0.0-0.5)
Test Pit Terminated @ ***0.5m from surfaces***			

SP4			
Depth (m)	**Sample**	**Description**	**Additional Observations**
0.0-0.5 (agl)		Fill: Topsoil: Sandy, Silty, CLAY; low plasticity, brown to dark brown, moist, firm	Minor traces of tile fragments.
Test Pit Terminated @ ***0.5m from surfaces***			

OBS1			
Depth (m)	**Sample**	**Description**	**Additional Observations**
Surface observation		Surface debris in collections	Collections of surface debris within vicinity (metal, timber, masonry)

OBS2			
Depth (m)	**Sample**	**Description**	**Additional Observations**
Surface observation		Surface debris in collections	Collections of surface debris within vicinity (metal, timber, masonry)

OBS3			
Depth (m)	**Sample**	**Description**	**Additional Observations**
Surface observation		Surface debris in collections	Collections of surface debris within vicinity (metal, timber, masonry)

Notes:
agl = above ground surface level.

PID in Parts Per Million (PPM)

APPENDIX C

Laboratory Analytical Reports and Chain of Custody Documentation

Geotest Services
Unit 18/24 Garling Rd
Kings Park
NSW 2148

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Dave Spasojevic-All Results**

Report **814485-S**
Project name 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID P3391.1
Received Date Aug 03, 2021

Client Sample ID			**TP1 0.1-0.2**	**TP2 0.2-0.3**	**TP3 0.2-0.3**	**TP4 0.2-0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S21-Au04613**	**S21-Au04614**	**S21-Au04615**	**S21-Au04616**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	94	92	93	83
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP1 0.1-0.2	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04613	S21-Au04614	S21-Au04615	S21-Au04616
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	107	107	109	102
p-Terphenyl-d14 (surr.)	1	%	86	86	88	79
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	76	89	-	72
Tetrachloro-m-xylene (surr.)	1	%	94	99	-	95
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibutylchlorendate (surr.)	1	%	76	89	-	72
Tetrachloro-m-xylene (surr.)	1	%	94	99	-	95

Client Sample ID			TP1 0.1-0.2	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04613	S21-Au04614	S21-Au04615	S21-Au04616
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	5.7	3.7	8.0	9.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	11	14	15
Copper	5	mg/kg	9.7	5.4	27	18
Lead	5	mg/kg	25	16	32	110
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.1	< 5	8.9	< 5
Zinc	5	mg/kg	69	20	270	31
% Moisture	1	%	21	17	17	18

Client Sample ID			TP5 0.2-0.3	TP6 0.0-0.1	TP7 0.1-0.2	TP13 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04617	S21-Au04618	S21-Au04619	S21-Au04620
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	60	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	60	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	96	73	94
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP5 0.2-0.3	TP6 0.0-0.1	TP7 0.1-0.2	TP13 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04617	S21-Au04618	S21-Au04619	S21-Au04620
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	124	113	126	123
p-Terphenyl-d14 (surr.)	1	%	97	135	100	99
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	85	91	113	107
Tetrachloro-m-xylene (surr.)	1	%	114	121	116	112
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			TP5 0.2-0.3	TP6 0.0-0.1	TP7 0.1-0.2	TP13 0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04617	S21-Au04618	S21-Au04619	S21-Au04620
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	85	-	113	107
Tetrachloro-m-xylene (surr.)	1	%	114	-	116	112
Heavy Metals						
Arsenic	2	mg/kg	5.7	8.1	5.4	4.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	18	16	9.4
Copper	5	mg/kg	9.5	< 5	8.8	14
Lead	5	mg/kg	39	13	14	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.8	5.5	< 5	< 5
Zinc	5	mg/kg	24	18	47	13
% Moisture	1	%	15	17	20	12
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Bolstar	0.2	mg/kg	-	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	-	< 0.2	-	-
Coumaphos	2	mg/kg	-	< 2	-	-
Demeton-S	0.2	mg/kg	-	< 0.2	-	-
Demeton-O	0.2	mg/kg	-	< 0.2	-	-
Diazinon	0.2	mg/kg	-	< 0.2	-	-
Dichlorvos	0.2	mg/kg	-	< 0.2	-	-
Dimethoate	0.2	mg/kg	-	< 0.2	-	-
Disulfoton	0.2	mg/kg	-	< 0.2	-	-
EPN	0.2	mg/kg	-	< 0.2	-	-
Ethion	0.2	mg/kg	-	< 0.2	-	-
Ethoprop	0.2	mg/kg	-	< 0.2	-	-
Ethyl parathion	0.2	mg/kg	-	< 0.2	-	-
Fenitrothion	0.2	mg/kg	-	< 0.2	-	-
Fensulfothion	0.2	mg/kg	-	< 0.2	-	-
Fenthion	0.2	mg/kg	-	< 0.2	-	-
Malathion	0.2	mg/kg	-	< 0.2	-	-
Merphos	0.2	mg/kg	-	< 0.2	-	-
Methyl parathion	0.2	mg/kg	-	< 0.2	-	-
Mevinphos	0.2	mg/kg	-	< 0.2	-	-
Monocrotophos	2	mg/kg	-	< 2	-	-
Naled	0.2	mg/kg	-	< 0.2	-	-
Omethoate	2	mg/kg	-	< 2	-	-
Phorate	0.2	mg/kg	-	< 0.2	-	-
Pirimiphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Pyrazophos	0.2	mg/kg	-	< 0.2	-	-
Ronnel	0.2	mg/kg	-	< 0.2	-	-
Terbufos	0.2	mg/kg	-	< 0.2	-	-
Tetrachlorvinphos	0.2	mg/kg	-	< 0.2	-	-
Tokuthion	0.2	mg/kg	-	< 0.2	-	-
Trichloronate	0.2	mg/kg	-	< 0.2	-	-
Triphenylphosphate (surr.)	1	%	-	97	-	-

Client Sample ID			[G01]TP14 0.4-0.5	TP15 0.3-0.4	TP24 0.0-0.1	TP25 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04621	S21-Au04622	S21-Au04623	S21-Au04624
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	55	< 50	-	< 50
TRH C10-C36 (Total)	50	mg/kg	55	< 50	-	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	84	79	-	90
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	125	124	-	121
p-Terphenyl-d14 (surr.)	1	%	73	82	-	94
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05

Client Sample ID			[G01]TP14 0.4-0.5	TP15 0.3-0.4	TP24 0.0-0.1	TP25 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04621	S21-Au04622	S21-Au04623	S21-Au04624
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 10	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	INT	INT	76	84
Tetrachloro-m-xylene (surr.)	1	%	119	116	113	114
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 1	< 0.5	-	< 0.5
Dibutylchlorendate (surr.)	1	%	INT	INT	-	84
Tetrachloro-m-xylene (surr.)	1	%	119	116	-	114
Heavy Metals						
Arsenic	2	mg/kg	< 2	5.9	11	8.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.8	14	25	23
Copper	5	mg/kg	< 5	11	< 5	< 5
Lead	5	mg/kg	6.3	17	17	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	6.7	29	5.2	5.1
% Moisture	1	%	11	11	13	14

Client Sample ID			[G01]TP14 0.4-0.5	TP15 0.3-0.4	TP24 0.0-0.1	TP25 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04621	S21-Au04622	S21-Au04623	S21-Au04624
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Bolstar	0.2	mg/kg	-	-	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	-	-	< 0.2	-
Coumaphos	2	mg/kg	-	-	< 2	-
Demeton-S	0.2	mg/kg	-	-	< 0.2	-
Demeton-O	0.2	mg/kg	-	-	< 0.2	-
Diazinon	0.2	mg/kg	-	-	< 0.2	-
Dichlorvos	0.2	mg/kg	-	-	< 0.2	-
Dimethoate	0.2	mg/kg	-	-	< 0.2	-
Disulfoton	0.2	mg/kg	-	-	< 0.2	-
EPN	0.2	mg/kg	-	-	< 0.2	-
Ethion	0.2	mg/kg	-	-	< 0.2	-
Ethoprop	0.2	mg/kg	-	-	< 0.2	-
Ethyl parathion	0.2	mg/kg	-	-	< 0.2	-
Fenitrothion	0.2	mg/kg	-	-	< 0.2	-
Fensulfothion	0.2	mg/kg	-	-	< 0.2	-
Fenthion	0.2	mg/kg	-	-	< 0.2	-
Malathion	0.2	mg/kg	-	-	< 0.2	-
Merphos	0.2	mg/kg	-	-	< 0.2	-
Methyl parathion	0.2	mg/kg	-	-	< 0.2	-
Mevinphos	0.2	mg/kg	-	-	< 0.2	-
Monocrotophos	2	mg/kg	-	-	< 2	-
Naled	0.2	mg/kg	-	-	< 0.2	-
Omethoate	2	mg/kg	-	-	< 2	-
Phorate	0.2	mg/kg	-	-	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Pyrazophos	0.2	mg/kg	-	-	< 0.2	-
Ronnel	0.2	mg/kg	-	-	< 0.2	-
Terbufos	0.2	mg/kg	-	-	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	-	-	< 0.2	-
Tokuthion	0.2	mg/kg	-	-	< 0.2	-
Trichloronate	0.2	mg/kg	-	-	< 0.2	-
Triphenylphosphate (surr.)	1	%	-	-	94	-

Client Sample ID			TP26 0.2-0.3	TP27 0.2-0.3	TP28 0.1-0.2	TP29 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04625	S21-Au04626	S21-Au04627	S21-Au04628
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	-
TRH C10-C14	20	mg/kg	< 20	-	< 20	-
TRH C15-C28	50	mg/kg	< 50	-	94	-
TRH C29-C36	50	mg/kg	< 50	-	170	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	264	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID			TP26 0.2-0.3	TP27 0.2-0.3	TP28 0.1-0.2	TP29 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04625	S21-Au04626	S21-Au04627	S21-Au04628
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10	20	mg/kg	< 20	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	-
TRH >C10-C16	50	mg/kg	< 50	-	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	140	-
TRH >C34-C40	100	mg/kg	< 100	-	250	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	390	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	77	-	75	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	121	-	120	-
p-Terphenyl-d14 (surr.)	1	%	99	-	97	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			TP26 0.2-0.3	TP27 0.2-0.3	TP28 0.1-0.2	TP29 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04625	S21-Au04626	S21-Au04627	S21-Au04628
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	0.1	mg/kg	< 0.1	-	< 0.1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	141	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	110	-	107	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	141	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	110	-	107	-
Heavy Metals						
Arsenic	2	mg/kg	10	6.0	10	17
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	15	17	34
Copper	5	mg/kg	27	20	27	13
Lead	5	mg/kg	48	27	47	52
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	11	9.9	7.7	< 5
Zinc	5	mg/kg	130	67	230	54
% Moisture	1	%	15	13	18	22

Client Sample ID			TP32 0.1-0.2	TP35 0.1-0.2	TP36 0.1-0.2	TP37 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04629	S21-Au04630	S21-Au04631	S21-Au04632
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	97	94	79	80
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	116	117	115	118
p-Terphenyl-d14 (surr.)	1	%	93	96	93	94
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			TP32 0.1-0.2	TP35 0.1-0.2	TP36 0.1-0.2	TP37 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04629	S21-Au04630	S21-Au04631	S21-Au04632
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	INT	116	113	121
Tetrachloro-m-xylene (surr.)	1	%	102	102	101	104
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibutylchlorendate (surr.)	1	%	INT	116	-	121
Tetrachloro-m-xylene (surr.)	1	%	102	102	-	104
Heavy Metals						
Arsenic	2	mg/kg	6.9	24	15	9.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	42	30	24
Copper	5	mg/kg	27	14	17	18
Lead	5	mg/kg	42	32	33	30
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	9.1	< 5	< 5	6.8
Zinc	5	mg/kg	120	100	140	120
% Moisture	1	%	16	18	17	19

Client Sample ID			TP32 0.1-0.2	TP35 0.1-0.2	TP36 0.1-0.2	TP37 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04629	S21-Au04630	S21-Au04631	S21-Au04632
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Bolstar	0.2	mg/kg	-	-	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	-	-	< 0.2	-
Coumaphos	2	mg/kg	-	-	< 2	-
Demeton-S	0.2	mg/kg	-	-	< 0.2	-
Demeton-O	0.2	mg/kg	-	-	< 0.2	-
Diazinon	0.2	mg/kg	-	-	< 0.2	-
Dichlorvos	0.2	mg/kg	-	-	< 0.2	-
Dimethoate	0.2	mg/kg	-	-	< 0.2	-
Disulfoton	0.2	mg/kg	-	-	< 0.2	-
EPN	0.2	mg/kg	-	-	< 0.2	-
Ethion	0.2	mg/kg	-	-	< 0.2	-
Ethoprop	0.2	mg/kg	-	-	< 0.2	-
Ethyl parathion	0.2	mg/kg	-	-	< 0.2	-
Fenitrothion	0.2	mg/kg	-	-	< 0.2	-
Fensulfothion	0.2	mg/kg	-	-	< 0.2	-
Fenthion	0.2	mg/kg	-	-	< 0.2	-
Malathion	0.2	mg/kg	-	-	< 0.2	-
Merphos	0.2	mg/kg	-	-	< 0.2	-
Methyl parathion	0.2	mg/kg	-	-	< 0.2	-
Mevinphos	0.2	mg/kg	-	-	< 0.2	-
Monocrotophos	2	mg/kg	-	-	< 2	-
Naled	0.2	mg/kg	-	-	< 0.2	-
Omethoate	2	mg/kg	-	-	< 2	-
Phorate	0.2	mg/kg	-	-	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Pyrazophos	0.2	mg/kg	-	-	< 0.2	-
Ronnel	0.2	mg/kg	-	-	< 0.2	-
Terbufos	0.2	mg/kg	-	-	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	-	-	< 0.2	-
Tokuthion	0.2	mg/kg	-	-	< 0.2	-
Trichloronate	0.2	mg/kg	-	-	< 0.2	-
Triphenylphosphate (surr.)	1	%	-	-	114	-

Client Sample ID			TP38 0.0-0.1	TP39 0.1-0.2	TP40 0.0-0.1	TP41 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04633	S21-Au04634	S21-Au04635	S21-Au04636
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	57	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	57	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP38 0.0-0.1	TP39 0.1-0.2	TP40 0.0-0.1	TP41 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04633	S21-Au04634	S21-Au04635	S21-Au04636
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	78	78	90	94
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	110	106	93	91
p-Terphenyl-d14 (surr.)	1	%	114	111	95	93
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			TP38 0.0-0.1	TP39 0.1-0.2	TP40 0.0-0.1	TP41 0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04633	S21-Au04634	S21-Au04635	S21-Au04636
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	0.1	mg/kg	-	< 0.1	< 0.1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	140	119	-
Tetrachloro-m-xylene (surr.)	1	%	-	106	93	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	-
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	-
Total PCB*	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibutylchlorendate (surr.)	1	%	-	140	119	-
Tetrachloro-m-xylene (surr.)	1	%	-	106	93	-
Heavy Metals						
Arsenic	2	mg/kg	8.7	7.9	12	9.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.9	< 0.4
Chromium	5	mg/kg	22	15	40	16
Copper	5	mg/kg	20	27	77	14
Lead	5	mg/kg	44	34	160	57
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.3	15	14	12
Zinc	5	mg/kg	190	83	290	95
% Moisture	1	%	23	10	27	9.4

Client Sample ID			TP42 0.2-0.3	TP43 0.1-0.2	SP1	SP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04637	S21-Au04638	S21-Au04639	S21-Au04640
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	-	< 50	61
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	61
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	99	-	87	99
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	95	-	109	95
p-Terphenyl-d14 (surr.)	1	%	97	-	112	96
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	0.06	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-

Client Sample ID			TP42 0.2-0.3	TP43 0.1-0.2	SP1	SP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04637	S21-Au04638	S21-Au04639	S21-Au04640
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Toxaphene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	0.06	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	134	INT	INT	-
Tetrachloro-m-xylene (surr.)	1	%	94	127	108	-
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	-
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	-
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibutylchlorendate (surr.)	1	%	134	-	INT	-
Tetrachloro-m-xylene (surr.)	1	%	94	-	108	-
Heavy Metals						
Arsenic	2	mg/kg	6.7	9.7	7.2	7.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	19	28	27
Copper	5	mg/kg	19	9.5	15	8.6
Lead	5	mg/kg	160	29	59	31
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	11
Zinc	5	mg/kg	160	94	73	86
% Moisture	1	%	10	11	11	9.8

Client Sample ID			TP42 0.2-0.3	TP43 0.1-0.2	SP1	SP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04637	S21-Au04638	S21-Au04639	S21-Au04640
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Bolstar	0.2	mg/kg	-	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	-	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	-	< 0.2	-	-
Coumaphos	2	mg/kg	-	< 2	-	-
Demeton-S	0.2	mg/kg	-	< 0.2	-	-
Demeton-O	0.2	mg/kg	-	< 0.2	-	-
Diazinon	0.2	mg/kg	-	< 0.2	-	-
Dichlorvos	0.2	mg/kg	-	< 0.2	-	-
Dimethoate	0.2	mg/kg	-	< 0.2	-	-
Disulfoton	0.2	mg/kg	-	< 0.2	-	-
EPN	0.2	mg/kg	-	< 0.2	-	-
Ethion	0.2	mg/kg	-	< 0.2	-	-
Ethoprop	0.2	mg/kg	-	< 0.2	-	-
Ethyl parathion	0.2	mg/kg	-	< 0.2	-	-
Fenitrothion	0.2	mg/kg	-	< 0.2	-	-
Fensulfothion	0.2	mg/kg	-	< 0.2	-	-
Fenthion	0.2	mg/kg	-	< 0.2	-	-
Malathion	0.2	mg/kg	-	< 0.2	-	-
Merphos	0.2	mg/kg	-	< 0.2	-	-
Methyl parathion	0.2	mg/kg	-	< 0.2	-	-
Mevinphos	0.2	mg/kg	-	< 0.2	-	-
Monocrotophos	2	mg/kg	-	< 2	-	-
Naled	0.2	mg/kg	-	< 0.2	-	-
Omethoate	2	mg/kg	-	< 2	-	-
Phorate	0.2	mg/kg	-	< 0.2	-	-
Pirimiphos-methyl	0.2	mg/kg	-	< 0.2	-	-
Pyrazophos	0.2	mg/kg	-	< 0.2	-	-
Ronnel	0.2	mg/kg	-	< 0.2	-	-
Terbufos	0.2	mg/kg	-	< 0.2	-	-
Tetrachlorvinphos	0.2	mg/kg	-	< 0.2	-	-
Tokuthion	0.2	mg/kg	-	< 0.2	-	-
Trichloronate	0.2	mg/kg	-	< 0.2	-	-
Triphenylphosphate (surr.)	1	%	-	INT	-	-

Client Sample ID			SP3	SP4	DUP1	DUP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04641	S21-Au04642	S21-Au04645	S21-Au04647
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			SP3	SP4	DUP1	DUP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04641	S21-Au04642	S21-Au04645	S21-Au04647
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	70	67	84	70
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	96	100	94	99
p-Terphenyl-d14 (surr.)	1	%	98	100	95	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05

Client Sample ID			SP3	SP4	DUP1	DUP2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S21-Au04641	S21-Au04642	S21-Au04645	S21-Au04647
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	135	-	126	134
Tetrachloro-m-xylene (surr.)	1	%	94	-	93	100
Polychlorinated Biphenyls						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PCB*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	135	-	126	134
Tetrachloro-m-xylene (surr.)	1	%	94	-	93	100
Heavy Metals						
Arsenic	2	mg/kg	7.6	18	4.6	57
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	6.2
Chromium	5	mg/kg	18	22	12	64
Copper	5	mg/kg	14	7.1	6.8	68
Lead	5	mg/kg	21	18	24	65
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	1.3
Nickel	5	mg/kg	7.3	< 5	< 5	69
Zinc	5	mg/kg	270	32	16	69
% Moisture	1	%	11	9.7	15	15

Client Sample ID			SSEIL	TRIP BLANK	TRIP SPIKE
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S21-Au04649	S21-Au04650	S21-Au04651
Date Sampled			Aug 03, 2021	Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	-	< 20	-
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	-
BTEX					
Benzene	0.1	mg/kg	-	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	73	-
Heavy Metals					
Arsenic	2	mg/kg	10	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-
Chromium	5	mg/kg	31	-	-
Copper	5	mg/kg	< 5	-	-
Lead	5	mg/kg	15	-	-
Mercury	0.1	mg/kg	< 0.1	-	-
Nickel	5	mg/kg	< 5	-	-
Zinc	5	mg/kg	< 5	-	-
% Moisture	1	%	7.0	-	-
% Clay	1	%	8.0	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	36	-	-
pH (1:5 Aqueous extract at 25°C as rec.)	0.1	pH Units	7.4	-	-
Total Organic Carbon	0.1	%	0.6	-	-
TRH C6-C10	1	%	-	-	86
Cation Exchange Capacity					
Cation Exchange Capacity	0.05	meq/100g	1.9	-	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	-	87
TRH C6-C9	1	%	-	-	86
BTEX					
Benzene	1	%	-	-	93
Ethylbenzene	1	%	-	-	85
m&p-Xylenes	1	%	-	-	84
o-Xylene	1	%	-	-	85
Toluene	1	%	-	-	86
Xylenes - Total	1	%	-	-	85
4-Bromofluorobenzene (surr.)	1	%	-	-	80

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 04, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Aug 07, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Aug 06, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Aug 06, 2021	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Aug 04, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Melbourne	Aug 04, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			
% Clay	Brisbane	Aug 11, 2021	14 Days
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract at 25°C as rec.)	Melbourne	Aug 07, 2021	7 Days
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Aug 09, 2021	28 Days
- Method: LTM-INO-4060 Total Organic Carbon in water and soil			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	Aug 07, 2021	7 Days
- Method: LTM-INO-4030 Conductivity			
Cation Exchange Capacity	Melbourne	Aug 09, 2021	180 Days
- Method: LTM-MET-3060 Cation Exchange Capacity by bases & Exchangeable Sodium Percentage			

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IANZ # 1290

Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	TP1 0.1-0.2	Aug 03, 2021		Soil	S21-Au04613							X			X		X		
2	TP2 0.2-0.3	Aug 03, 2021		Soil	S21-Au04614		X					X			X		X		
3	TP3 0.2-0.3	Aug 03, 2021		Soil	S21-Au04615		X								X		X		
4	TP4 0.2-0.3	Aug 03, 2021		Soil	S21-Au04616		X					X			X		X		
5	TP5 0.2-0.3	Aug 03, 2021		Soil	S21-Au04617		X					X			X		X		
6	TP6 0.0-0.1	Aug 03, 2021		Soil	S21-Au04618		X						X		X		X		
7	TP7 0.1-0.2	Aug 03, 2021		Soil	S21-Au04619		X					X			X		X		
8	TP13 0.2-0.3	Aug 03, 2021		Soil	S21-Au04620							X			X		X		
9	TP14 0.4-0.5	Aug 03, 2021		Soil	S21-Au04621		X					X			X		X		

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Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
10	TP15 0.3-0.4	Aug 03, 2021		Soil	S21-Au04622		X					X			X		X		
11	TP24 0.0-0.1	Aug 03, 2021		Soil	S21-Au04623						X		X		X				
12	TP25 0.1-0.2	Aug 03, 2021		Soil	S21-Au04624							X			X		X		
13	TP26 0.2-0.3	Aug 03, 2021		Soil	S21-Au04625		X					X			X		X		
14	TP27 0.2-0.3	Aug 03, 2021		Soil	S21-Au04626		X				X				X				
15	TP28 0.1-0.2	Aug 03, 2021		Soil	S21-Au04627		X					X			X		X		
16	TP29 0.1-0.2	Aug 03, 2021		Soil	S21-Au04628						X				X				
17	TP32 0.1-0.2	Aug 03, 2021		Soil	S21-Au04629		X					X			X		X		
18	TP35 0.1-0.2	Aug 03, 2021		Soil	S21-Au04630		X					X			X		X		
19	TP36 0.1-0.2	Aug 03, 2021		Soil	S21-Au04631		X						X		X		X		
20	TP37 0.1-0.2	Aug 03, 2021		Soil	S21-Au04632		X					X			X		X		

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
21	TP38 0.0-0.1	Aug 03, 2021		Soil	S21-Au04633		X								X		X		
22	TP39 0.1-0.2	Aug 03, 2021		Soil	S21-Au04634		X					X			X		X		
23	TP40 0.0-0.1	Aug 03, 2021		Soil	S21-Au04635		X					X			X		X		
24	TP41 0.1-0.2	Aug 03, 2021		Soil	S21-Au04636		X								X		X		
25	TP42 0.2-0.3	Aug 03, 2021		Soil	S21-Au04637		X					X			X		X		
26	TP43 0.1-0.2	Aug 03, 2021		Soil	S21-Au04638						X		X		X				
27	SP1	Aug 03, 2021		Soil	S21-Au04639		X					X			X		X		
28	SP2	Aug 03, 2021		Soil	S21-Au04640		X								X		X		
29	SP3	Aug 03, 2021		Soil	S21-Au04641		X					X			X		X		
30	SP4	Aug 03, 2021		Soil	S21-Au04642		X								X		X		
31	SS1	Aug 03, 2021		Soil	S21-Au04643		X												

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
32	SS2	Aug 03, 2021		Soil	S21-Au04644		X												
33	DUP1	Aug 03, 2021		Soil	S21-Au04645							X			X		X		
34	DUP2	Aug 03, 2021		Soil	S21-Au04647							X			X		X		
35	SSEIL	Aug 03, 2021		Soil	S21-Au04649	X		X	X	X				X		X			
36	TRIP BLANK	Aug 03, 2021		Soil	S21-Au04650										X			X	
37	TRIP SPIKE	Aug 03, 2021		Soil	S21-Au04651										X				X
Test Counts						1	26	1	1	5	5	21	4	35	35	1	28	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Conductivity (1:5 aqueous extract at 25°C as rec.)	uS/cm	< 10			10	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	70			70-130	Pass	
TRH C10-C14	%	87			70-130	Pass	
Naphthalene	%	74			70-130	Pass	
TRH C6-C10	%	75			70-130	Pass	
TRH >C10-C16	%	88			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	75			70-130	Pass	
Toluene	%	72			70-130	Pass	
Ethylbenzene	%	77			70-130	Pass	
m&p-Xylenes	%	78			70-130	Pass	
o-Xylene	%	77			70-130	Pass	
Xylenes - Total*	%	78			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	107			70-130	Pass	
Acenaphthylene	%	116			70-130	Pass	
Anthracene	%	118			70-130	Pass	
Benz(a)anthracene	%	105			70-130	Pass	
Benzo(a)pyrene	%	116			70-130	Pass	
Benzo(b&j)fluoranthene	%	102			70-130	Pass	
Benzo(g.h.i)perylene	%	101			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	111			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	109			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	105			70-130	Pass	
Naphthalene	%	105			70-130	Pass	
Phenanthrene	%	113			70-130	Pass	
Pyrene	%	103			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	84			70-130	Pass	
4.4'-DDD	%	74			70-130	Pass	
4.4'-DDE	%	85			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDT	%	100			70-130	Pass	
a-HCH	%	80			70-130	Pass	
Aldrin	%	89			70-130	Pass	
b-HCH	%	84			70-130	Pass	
d-HCH	%	90			70-130	Pass	
Dieldrin	%	80			70-130	Pass	
Endosulfan I	%	77			70-130	Pass	
Endosulfan II	%	77			70-130	Pass	
Endosulfan sulphate	%	77			70-130	Pass	
Endrin	%	122			70-130	Pass	
Endrin aldehyde	%	77			70-130	Pass	
Endrin ketone	%	73			70-130	Pass	
g-HCH (Lindane)	%	83			70-130	Pass	
Heptachlor	%	77			70-130	Pass	
Heptachlor epoxide	%	76			70-130	Pass	
Hexachlorobenzene	%	87			70-130	Pass	
Methoxychlor	%	105			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	75			70-130	Pass	
Aroclor-1260	%	94			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	103			80-120	Pass	
Cadmium	%	103			80-120	Pass	
Chromium	%	108			80-120	Pass	
Copper	%	107			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	107			80-120	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	104			80-120	Pass	
LCS - % Recovery							
Total Organic Carbon	%	98			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	97			70-130	Pass	
Dimethoate	%	129			70-130	Pass	
Ethion	%	82			70-130	Pass	
Fenitrothion	%	109			70-130	Pass	
Methyl parathion	%	119			70-130	Pass	
Mevinphos	%	105			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S21-Au05004	NCP	%	87			70-130	Pass	
TRH >C10-C16	S21-Au05004	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S21-Au13836	NCP	%	79			70-130	Pass	
4.4'-DDD	S21-Au13836	NCP	%	82			70-130	Pass	
4.4'-DDE	S21-Au13836	NCP	%	83			70-130	Pass	
4.4'-DDT	S21-Au10407	NCP	%	128			70-130	Pass	
a-HCH	S21-Au13836	NCP	%	80			70-130	Pass	
Aldrin	S21-Au13836	NCP	%	85			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-HCH	S21-Au10407	NCP	%	128			70-130	Pass	
d-HCH	S21-Au13836	NCP	%	90			70-130	Pass	
Dieldrin	S21-Au13836	NCP	%	75			70-130	Pass	
Endosulfan I	S21-Au13836	NCP	%	78			70-130	Pass	
Endosulfan II	S21-Au13836	NCP	%	77			70-130	Pass	
Endosulfan sulphate	S21-Au13836	NCP	%	75			70-130	Pass	
Endrin	S21-Au10407	NCP	%	123			70-130	Pass	
Endrin ketone	S21-Au13836	NCP	%	83			70-130	Pass	
g-HCH (Lindane)	S21-Au10407	NCP	%	128			70-130	Pass	
Heptachlor	S21-Au10407	NCP	%	123			70-130	Pass	
Heptachlor epoxide	S21-Au13836	NCP	%	76			70-130	Pass	
Hexachlorobenzene	S21-Au13836	NCP	%	81			70-130	Pass	
Methoxychlor	S21-Au10407	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S21-Au10407	NCP	%	126			70-130	Pass	
Aroclor-1260	S21-Au13836	NCP	%	97			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Endrin aldehyde	S21-Au02985	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S21-Au02985	NCP	%	78			70-130	Pass	
Dimethoate	S21-Au02985	NCP	%	86			70-130	Pass	
Ethion	S21-Au02985	NCP	%	102			70-130	Pass	
Fenitrothion	S21-Au02985	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au04620	CP	%	71			70-130	Pass	
Naphthalene	S21-Au04620	CP	%	70			70-130	Pass	
TRH C6-C10	S21-Au04620	CP	%	73			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au04620	CP	%	73			70-130	Pass	
Toluene	S21-Au04620	CP	%	73			70-130	Pass	
Ethylbenzene	S21-Au04620	CP	%	78			70-130	Pass	
m&p-Xylenes	S21-Au04620	CP	%	80			70-130	Pass	
o-Xylene	S21-Au04620	CP	%	79			70-130	Pass	
Xylenes - Total*	S21-Au04620	CP	%	80			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Methyl parathion	S21-Au13836	NCP	%	122			70-130	Pass	
Mevinphos	S21-Au10407	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Au04629	CP	%	106			75-125	Pass	
Cadmium	S21-Au04629	CP	%	102			75-125	Pass	
Chromium	S21-Au04629	CP	%	115			75-125	Pass	
Copper	S21-Au04629	CP	%	88			75-125	Pass	
Lead	S21-Au04629	CP	%	89			75-125	Pass	
Mercury	S21-Au04629	CP	%	109			75-125	Pass	
Nickel	S21-Au04629	CP	%	104			75-125	Pass	
Zinc	S21-Au04629	CP	%	78			75-125	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S21-Au04633	CP	%	71			70-130	Pass	
Naphthalene	S21-Au04633	CP	%	89			70-130	Pass	
TRH C6-C10	S21-Au04633	CP	%	73			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Au04633	CP	%	75			70-130	Pass	
Toluene	S21-Au04633	CP	%	78			70-130	Pass	
Ethylbenzene	S21-Au04633	CP	%	79			70-130	Pass	
m&p-Xylenes	S21-Au04633	CP	%	80			70-130	Pass	
o-Xylene	S21-Au04633	CP	%	81			70-130	Pass	
Xylenes - Total*	S21-Au04633	CP	%	80			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S21-Au04636	CP	%	88			70-130	Pass	
Acenaphthylene	S21-Au04636	CP	%	95			70-130	Pass	
Anthracene	S21-Au04636	CP	%	88			70-130	Pass	
Benz(a)anthracene	S21-Au04636	CP	%	85			70-130	Pass	
Benzo(a)pyrene	S21-Au04636	CP	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Au04636	CP	%	92			70-130	Pass	
Benzo(g.h.i)perylene	S21-Au04636	CP	%	88			70-130	Pass	
Benzo(k)fluoranthene	S21-Au04636	CP	%	91			70-130	Pass	
Chrysene	S21-Au04636	CP	%	88			70-130	Pass	
Dibenz(a.h)anthracene	S21-Au04636	CP	%	92			70-130	Pass	
Fluoranthene	S21-Au04636	CP	%	84			70-130	Pass	
Fluorene	S21-Au04636	CP	%	89			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04636	CP	%	85			70-130	Pass	
Naphthalene	S21-Au04636	CP	%	86			70-130	Pass	
Phenanthrene	S21-Au04636	CP	%	86			70-130	Pass	
Pyrene	S21-Au04636	CP	%	85			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au04614	CP	%	17	15	10	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au04616	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au04616	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au04616	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-Au04616	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-Au04616	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S21-Au04616	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Methyl parathion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S21-Au04616	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S21-Au04616	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S21-Au04616	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S21-Au04617	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au04617	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-Au04617	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S21-Au04617	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au04617	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-Au04617	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au04618	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S21-Au04618	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au04618	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au04618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au04618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au04618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au04618	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au04618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au04618	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au04618	CP	mg/kg	8.1	7.5	7.0	30%	Pass	
Cadmium	S21-Au04618	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au04618	CP	mg/kg	18	15	20	30%	Pass	
Copper	S21-Au04618	CP	mg/kg	< 5	8.6	53	30%	Fail	Q15
Lead	S21-Au04618	CP	mg/kg	13	17	27	30%	Pass	
Mercury	S21-Au04618	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au04618	CP	mg/kg	5.5	7.3	28	30%	Pass	
Zinc	S21-Au04618	CP	mg/kg	18	28	46	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S21-Au04622	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S21-Au04622	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S21-Au04622	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S21-Au04622	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S21-Au04622	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S21-Au04622	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au04622	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au04622	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au04622	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-Au04622	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-Au04622	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S21-Au04622	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S21-Au04622	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S21-Au04622	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S21-Au04622	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au04624	CP	%	14	15	9.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au04628	CP	mg/kg	17	9.8	53	30%	Fail	Q15
Cadmium	S21-Au04628	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au04628	CP	mg/kg	34	24	36	30%	Fail	Q15
Copper	S21-Au04628	CP	mg/kg	13	19	41	30%	Fail	Q15
Lead	S21-Au04628	CP	mg/kg	52	66	25	30%	Pass	
Mercury	S21-Au04628	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au04628	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S21-Au04628	CP	mg/kg	54	68	22	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S21-Au04631	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S21-Au04631	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S21-Au04631	CP	mg/kg	< 20	< 20	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Au04631	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S21-Au04631	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S21-Au04631	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S21-Au04631	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S21-Au04631	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S21-Au04631	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au04634	CP	%	10	11	3.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au04635	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au04635	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au04635	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-Au04635	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-Au04635	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Au04638	CP	mg/kg	9.7	8.6	13	30%	Pass	
Cadmium	S21-Au04638	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S21-Au04638	CP	mg/kg	19	18	8.0	30%	Pass	
Copper	S21-Au04638	CP	mg/kg	9.5	9.2	3.0	30%	Pass	
Lead	S21-Au04638	CP	mg/kg	29	29	3.0	30%	Pass	
Mercury	S21-Au04638	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S21-Au04638	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S21-Au04638	CP	mg/kg	94	88	7.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S21-Au04641	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Heptachlor	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S21-Au04641	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S21-Au04641	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S21-Au04641	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Total PCB*	S21-Au04641	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S21-Au04647	CP	%	15	14	8.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
pH (1:5 Aqueous extract at 25°C as rec.)	M21-Au05249	NCP	pH Units	7.7	7.7	pass	30%	Pass	
Total Organic Carbon	S21-Jl55433	NCP	%	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Cation Exchange Capacity				Result 1	Result 2	RPD			
Cation Exchange Capacity	S21-Au02129	NCP	meq/100g	2.6	2.1	19	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Emma Beesley	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Geotest Services
Unit 18/24 Garling Rd
Kings Park
NSW 2148

Attention:	Dave Spasojevic-All Results
Report	814485-AID
Project Name	9 PALARAN AVENUE NORTH KELLYVILLE
Project ID	P3391.1
Received Date	Aug 03, 2021
Date Reported	Aug 12, 2021

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID P3391.1
Date Sampled Aug 03, 2021
Report 814485-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP2 0.2-0.3	21-Au04614	Aug 03, 2021	Approximate Sample 617g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP3 0.2-0.3	21-Au04615	Aug 03, 2021	Approximate Sample 626g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP4 0.2-0.3	21-Au04616	Aug 03, 2021	Approximate Sample 582g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP5 0.2-0.3	21-Au04617	Aug 03, 2021	Approximate Sample 667g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP6 0.0-0.1	21-Au04618	Aug 03, 2021	Approximate Sample 651g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP7 0.1-0.2	21-Au04619	Aug 03, 2021	Approximate Sample 576g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP14 0.4-0.5	21-Au04621	Aug 03, 2021	Approximate Sample 649g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP15 0.3-0.4	21-Au04622	Aug 03, 2021	Approximate Sample 609g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

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Accreditation Number 1261
Site Number 18217

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

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP26 0.2-0.3	21-Au04625	Aug 03, 2021	Approximate Sample 601g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP27 0.2-0.3	21-Au04626	Aug 03, 2021	Approximate Sample 439g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP28 0.1-0.2	21-Au04627	Aug 03, 2021	Approximate Sample 487g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP32 0.1-0.2	21-Au04629	Aug 03, 2021	Approximate Sample 575g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP35 0.1-0.2	21-Au04630	Aug 03, 2021	Approximate Sample 466g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP36 0.1-0.2	21-Au04631	Aug 03, 2021	Approximate Sample 451g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP37 0.1-0.2	21-Au04632	Aug 03, 2021	Approximate Sample 413g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP38 0.0-0.1	21-Au04633	Aug 03, 2021	Approximate Sample 439g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP39 0.1-0.2	21-Au04634	Aug 03, 2021	Approximate Sample 627g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP40 0.0-0.1	21-Au04635	Aug 03, 2021	Approximate Sample 565g Sample consisted of: Brown fine-grained clayey soil, coal, corroded metals and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP41 0.1-0.2	21-Au04636	Aug 03, 2021	Approximate Sample 608g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP42 0.2-0.3	21-Au04637	Aug 03, 2021	Approximate Sample 549g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SP1	21-Au04639	Aug 03, 2021	Approximate Sample 574g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

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Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
SP2	21-Au04640	Aug 03, 2021	Approximate Sample 426g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SP3	21-Au04641	Aug 03, 2021	Approximate Sample 708g Sample consisted of: Brown fine-grained clayey soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SP4	21-Au04642	Aug 03, 2021	Approximate Sample 663g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS1	21-Au04643	Aug 03, 2021	Approximate Sample 684g Sample consisted of: Brown coarse-grained soil, bitumen, debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
SS2	21-Au04644	Aug 03, 2021	Approximate Sample 650g Sample consisted of: Brown coarse-grained soil, bitumen, debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Aug 04, 2021	Indefinite

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Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
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NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	TP1 0.1-0.2	Aug 03, 2021		Soil	S21-Au04613							X			X		X		
2	TP2 0.2-0.3	Aug 03, 2021		Soil	S21-Au04614		X					X			X		X		
3	TP3 0.2-0.3	Aug 03, 2021		Soil	S21-Au04615		X								X		X		
4	TP4 0.2-0.3	Aug 03, 2021		Soil	S21-Au04616		X					X			X		X		
5	TP5 0.2-0.3	Aug 03, 2021		Soil	S21-Au04617		X					X			X		X		
6	TP6 0.0-0.1	Aug 03, 2021		Soil	S21-Au04618		X						X		X		X		
7	TP7 0.1-0.2	Aug 03, 2021		Soil	S21-Au04619		X					X			X		X		
8	TP13 0.2-0.3	Aug 03, 2021		Soil	S21-Au04620							X			X		X		
9	TP14 0.4-0.5	Aug 03, 2021		Soil	S21-Au04621		X					X			X		X		

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
10	TP15 0.3-0.4	Aug 03, 2021		Soil	S21-Au04622		X					X			X		X		
11	TP24 0.0-0.1	Aug 03, 2021		Soil	S21-Au04623						X		X		X				
12	TP25 0.1-0.2	Aug 03, 2021		Soil	S21-Au04624							X			X		X		
13	TP26 0.2-0.3	Aug 03, 2021		Soil	S21-Au04625		X					X			X		X		
14	TP27 0.2-0.3	Aug 03, 2021		Soil	S21-Au04626		X				X				X				
15	TP28 0.1-0.2	Aug 03, 2021		Soil	S21-Au04627		X					X			X		X		
16	TP29 0.1-0.2	Aug 03, 2021		Soil	S21-Au04628						X				X				
17	TP32 0.1-0.2	Aug 03, 2021		Soil	S21-Au04629		X					X			X		X		
18	TP35 0.1-0.2	Aug 03, 2021		Soil	S21-Au04630		X					X			X		X		
19	TP36 0.1-0.2	Aug 03, 2021		Soil	S21-Au04631		X						X		X		X		
20	TP37 0.1-0.2	Aug 03, 2021		Soil	S21-Au04632		X					X			X		X		

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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21	TP38 0.0-0.1	Aug 03, 2021		Soil	S21-Au04633		X								X		X		
22	TP39 0.1-0.2	Aug 03, 2021		Soil	S21-Au04634		X					X			X		X		
23	TP40 0.0-0.1	Aug 03, 2021		Soil	S21-Au04635		X					X			X		X		
24	TP41 0.1-0.2	Aug 03, 2021		Soil	S21-Au04636		X								X		X		
25	TP42 0.2-0.3	Aug 03, 2021		Soil	S21-Au04637		X					X			X		X		
26	TP43 0.1-0.2	Aug 03, 2021		Soil	S21-Au04638						X		X		X				
27	SP1	Aug 03, 2021		Soil	S21-Au04639		X					X			X		X		
28	SP2	Aug 03, 2021		Soil	S21-Au04640		X								X		X		
29	SP3	Aug 03, 2021		Soil	S21-Au04641		X					X			X		X		
30	SP4	Aug 03, 2021		Soil	S21-Au04642		X								X		X		
31	SS1	Aug 03, 2021		Soil	S21-Au04643		X												

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
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External Laboratory																			
32	SS2	Aug 03, 2021		Soil	S21-Au04644		X												
33	DUP1	Aug 03, 2021		Soil	S21-Au04645							X			X		X		
34	DUP2	Aug 03, 2021		Soil	S21-Au04647							X			X		X		
35	SSEIL	Aug 03, 2021		Soil	S21-Au04649	X		X	X	X				X		X			
36	TRIP BLANK	Aug 03, 2021		Soil	S21-Au04650													X	
37	TRIP SPIKE	Aug 03, 2021		Soil	S21-Au04651														X
Test Counts						1	26	1	1	5	5	21	4	33	33	1	28	1	1

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Sample is dried by heating prior to analysis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2009), including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil (2011)
NEPM	National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended)
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded and/or sound condition. For the purposes of the NEPM, ACM is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
AF	Asbestos Fines. Asbestos containing materials, including friable, weathered and bonded materials, able to pass a 7mm x 7mm sieve. Considered under the NEPM as equivalent to “non-bonded / friable”.
FA	Fibrous Asbestos. Asbestos containing materials in a friable and/or severely weathered condition. For the purposes of the NEPM, FA is generally restricted to those materials that do not pass a 7mm x 7mm sieve.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres in the matrix.

Comments

Au04626, Au04627, Au04630, Au04631, Au04632, Au04633 and Au04640 : Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

Geotest Services
Unit 18/24 Garling Rd
Kings Park
NSW 2148

Attention: **Dave Spasojevic-All Results**

Report **814513-S**
Project name 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID P3391.1
Received Date Aug 03, 2021

Client Sample ID			**DUP1A**	**DUP2A**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S21-Au04646**	**S21-Au04648**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	74	101
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			DUP1A	DUP2A
Sample Matrix			Soil	Soil
Eurofins Sample No.			S21-Au04646	S21-Au04648
Date Sampled			Aug 03, 2021	Aug 03, 2021
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	77	70
p-Terphenyl-d14 (surr.)	1	%	86	75
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	0.1	mg/kg	< 0.1	< 0.1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	123	105
Tetrachloro-m-xylene (surr.)	1	%	110	93
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	123	105
Tetrachloro-m-xylene (surr.)	1	%	110	93

Client Sample ID			DUP1A	DUP2A
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S21-Au04646**	**S21-Au04648**
Date Sampled			**Aug 03, 2021**	**Aug 03, 2021**
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	12	8.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	24	21
Copper	5	mg/kg	7.0	< 5
Lead	5	mg/kg	24	20
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5
Zinc	5	mg/kg	28	6.0
% Moisture	1	%	17	15

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B7			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Aug 07, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Suite B13: OCP/PCB			
Organochlorine Pesticides	Melbourne	Aug 07, 2021	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)			
Polychlorinated Biphenyls	Melbourne	Aug 07, 2021	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)			
% Moisture	Melbourne	Aug 04, 2021	14 Days
- Method: LTM-GEN-7080 Moisture			

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Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814513
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 11, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Suite B13: OCP/PCB	Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA Site # 1254						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
Mayfield Laboratory - NATA Site # 25079								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	DUP1A	Aug 03, 2021		Soil	S21-Au04646	X	X	X
2	DUP2A	Aug 03, 2021		Soil	S21-Au04648	X	X	X
Test Counts						2	2	2

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Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

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

QC Data General Comments

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

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	102			70-130	Pass	
TRH C10-C14	%	93			70-130	Pass	
Naphthalene	%	89			70-130	Pass	
TRH C6-C10	%	95			70-130	Pass	
TRH >C10-C16	%	92			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	108			70-130	Pass	
Toluene	%	107			70-130	Pass	
Ethylbenzene	%	98			70-130	Pass	
m&p-Xylenes	%	97			70-130	Pass	
Xylenes - Total*	%	97			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	93			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	87			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	%	99			70-130	Pass	
Benzo(g.h.i)perylene	%	113			70-130	Pass	
Benzo(k)fluoranthene	%	94			70-130	Pass	
Chrysene	%	83			70-130	Pass	
Dibenz(a.h)anthracene	%	110			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene	%	93			70-130	Pass	
Fluorene	%	96			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	97			70-130	Pass	
Naphthalene	%	102			70-130	Pass	
Phenanthrene	%	86			70-130	Pass	
Pyrene	%	96			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	91			70-130	Pass	
4.4'-DDD	%	99			70-130	Pass	
4.4'-DDE	%	93			70-130	Pass	
4.4'-DDT	%	85			70-130	Pass	
a-HCH	%	106			70-130	Pass	
Aldrin	%	90			70-130	Pass	
b-HCH	%	108			70-130	Pass	
d-HCH	%	102			70-130	Pass	
Dieldrin	%	97			70-130	Pass	
Endosulfan I	%	119			70-130	Pass	
Endosulfan II	%	101			70-130	Pass	
Endosulfan sulphate	%	82			70-130	Pass	
Endrin	%	93			70-130	Pass	
Endrin aldehyde	%	76			70-130	Pass	
Endrin ketone	%	115			70-130	Pass	
g-HCH (Lindane)	%	106			70-130	Pass	
Heptachlor	%	95			70-130	Pass	
Heptachlor epoxide	%	73			70-130	Pass	
Hexachlorobenzene	%	87			70-130	Pass	
Methoxychlor	%	99			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	72			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			80-120	Pass	
Cadmium	%	110			80-120	Pass	
Chromium	%	104			80-120	Pass	
Copper	%	107			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	111			80-120	Pass	
Nickel	%	101			80-120	Pass	
Zinc	%	107			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	M21-Au08286	NCP	%	79			70-130	Pass	
TRH C10-C14	M21-Au10288	NCP	%	109			70-130	Pass	
Naphthalene	M21-Au08286	NCP	%	78			70-130	Pass	
TRH C6-C10	M21-Au08286	NCP	%	75			70-130	Pass	
TRH >C10-C16	M21-Au10288	NCP	%	108			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M21-Au08286	NCP	%	72			70-130	Pass	
Toluene	M21-Au08286	NCP	%	78			70-130	Pass	
Ethylbenzene	M21-Au08286	NCP	%	74			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes	M21-Au08286	NCP	%	75			70-130	Pass	
o-Xylene	M21-Au08286	NCP	%	74			70-130	Pass	
Xylenes - Total*	M21-Au08286	NCP	%	75			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	M21-Au09081	NCP	%	91			70-130	Pass	
4.4'-DDD	M21-Au09081	NCP	%	102			70-130	Pass	
4.4'-DDE	M21-Au09081	NCP	%	92			70-130	Pass	
4.4'-DDT	M21-Au09081	NCP	%	82			70-130	Pass	
a-HCH	M21-Au09081	NCP	%	101			70-130	Pass	
Aldrin	M21-Au09081	NCP	%	93			70-130	Pass	
b-HCH	M21-Au09081	NCP	%	96			70-130	Pass	
d-HCH	M21-Au09081	NCP	%	93			70-130	Pass	
Dieldrin	M21-Au09081	NCP	%	88			70-130	Pass	
Endosulfan I	M21-Au09081	NCP	%	107			70-130	Pass	
Endosulfan II	M21-Au09081	NCP	%	100			70-130	Pass	
Endosulfan sulphate	M21-Au09081	NCP	%	81			70-130	Pass	
Endrin	M21-Au09081	NCP	%	92			70-130	Pass	
Endrin aldehyde	M21-Au09081	NCP	%	70			70-130	Pass	
Endrin ketone	M21-Au09081	NCP	%	120			70-130	Pass	
g-HCH (Lindane)	M21-Au09081	NCP	%	105			70-130	Pass	
Heptachlor	M21-Au09081	NCP	%	92			70-130	Pass	
Heptachlor epoxide	M21-Au09081	NCP	%	76			70-130	Pass	
Hexachlorobenzene	M21-Au09081	NCP	%	85			70-130	Pass	
Methoxychlor	M21-Au09081	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Au08728	NCP	%	81			75-125	Pass	
Cadmium	M21-Au08728	NCP	%	93			75-125	Pass	
Chromium	M21-Au08728	NCP	%	92			75-125	Pass	
Copper	M21-Au08728	NCP	%	117			75-125	Pass	
Lead	M21-Au09084	NCP	%	114			75-125	Pass	
Mercury	M21-Au08728	NCP	%	90			75-125	Pass	
Nickel	M21-Au08728	NCP	%	83			75-125	Pass	
Zinc	M21-Au09084	NCP	%	107			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	M21-Au14898	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M21-Au10290	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M21-Au10290	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M21-Au10290	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	M21-Au14898	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M21-Au14898	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M21-Au10290	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M21-Au10290	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M21-Au10290	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Au14898	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M21-Au14898	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M21-Au14898	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M21-Au14898	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M21-Au14898	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	M21-Au14898	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M21-Au09080	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M21-Au02466	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M21-Au09080	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	M21-Au09080	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Au08757	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	M21-Au08757	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M21-Au08757	NCP	mg/kg	7.1	7.0	1.0	30%	Pass	
Copper	M21-Au08757	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	M21-Au08757	NCP	mg/kg	6.8	5.5	21	30%	Pass	
Mercury	M21-Au08757	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M21-Au08757	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	M21-Au08757	NCP	mg/kg	20	20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	B21-Au04198	NCP	%	19	19	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

Andrew Black	Analytical Services Manager
Vivian Wang	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GEOTEST SERVICES PTY LTD
Office Address : 18/24 GARLING ROAD
KINGS PARK, N.S.W. 2148
PH: 9671 4443 FAX: 9671 4343

Contact Name : DAVID SPASOJEVIC
Project Manager : ALAN HALPIN
Email for results : admin@geotestservices.com.au

Purchase Order :
PROJECT Number : P33391.1
PROJECT Name : 9 Palaran Avenue North Kellyville

COC Number :
Eurofins | mgt quote ID : 180326GEO
Data output format:

Special Directions & Comments :

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	ASBESTOS QUANTIFICATION
1	TP1 0.1-0.2	3/08/2021	SOIL		X	X		
2	TP2 0.2-0.3	3/08/2021	SOIL		X	X		X
3	TP3 0.2-0.3	3/08/2021	SOIL		X			X
4	TP4 0.2-0.3	3/08/2021	SOIL		X	X		X
5	TP5 0.2-0.3	3/08/2021	SOIL		X	X		X
6	TP6 0.0-0.1	3/08/2021	SOIL		X		X	X
7	TP7 0.1-0.2	3/08/2021	SOIL		X	X		X
8	TP13 0.1-0.2	3/08/2021	SOIL		X	X		
9	TP14 0.4-0.5	3/08/2021	SOIL		X	X		X
10	TP15 0.3-0.4	3/08/2021	SOIL		X	X		X
11	TP24 0.0-0.1	3/08/2021	SOIL	X			X	
12	TP25 0.1-0.2	3/08/2021	SOIL		X	X		
13	TP26 0.2-0.3	3/08/2021	SOIL		X	X		X
14	TP27 0.2-0.3	3/08/2021	SOIL	X				X
15	TP28 0.1-0.2	3/08/2021	SOIL		X	X		X
16	TP29 0.1-0.2	3/08/2021	SOIL	X				

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP.BAG
						X	
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	
						X	X
						X	X
						X	
						X	
						X	
						X	X
						X	X
						X	

Sample comments:

PREPARED BY: A . HALPIN
Date & Time : 3/08/2021
Signature:

Laboratory Staff
Received By: [signature]
Date & Time : 3/8/21 2:50 pm
Signature: [signature]

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0

Report number: 814485

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KINGS PARK, N.S.W. 2148
PH: 9671 4443 FAX: 9671 4343

Contact Name : DAVID SPASOJEVIC
Project Manager : ALAN HALPIN
Email for results : admin@geotestservices.com.au

Purchase Order :
PROJECT Number : P33391.1
PROJECT Name : 9 Palaran Avenue North Kellyville

COC Number :
Eurofins | mgt quote ID : 180326GEO
Data output format:

Special Directions & Comments :

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	OCP	ASBESTOS QUANTIFICATION	SUITE B1
17	TP32 0.1-0.2	3/08/2021	SOIL		X	X			X	
18	TP35 0.1-0.2	3/08/2021	SOIL		X	X			X	
19	TP36 0.1-0.2	3/08/2021	SOIL		X		X		X	
20	TP37 0.1-0.2	3/08/2021	SOIL		X	X			X	
21	TP38 0.0-0.1	3/08/2021	SOIL		X				X	
22	TP39 0.1-0.2	3/08/2021	SOIL		X	X			X	
23	TP40 0.0-0.1	3/08/2021	SOIL		X	X			X	
24	TP41 0.1-0.2	3/08/2021	SOIL		X				X	
25	TP42 0.2-0.3	3/08/2021	SOIL		X	X			X	
26	TP43 0.1-0.2	3/08/2021	SOIL	X			X			
27	SP1	3/08/2021	SOIL		X	X			X	
28	SP2	3/08/2021	SOIL		X				X	
29	SP3	3/08/2021	SOIL		X	X			X	
30	SP4	3/08/2021	SOIL		X				X	
31	SS1	3/08/2021	SOIL						X	
32	SS2	3/08/2021	SOIL						X	

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP.BAG	Sample comments:
						X	X	
						X	X	
						X	X	
						X	X	
						X	X	
						X	X	
						X	X	
						X	X	
						X		
						X	X	
						X	X	
						X	X	
						X	X	
							X	

PREPARED BY: A . HALPIN
Date & Time : 3/08/2021
Signature:

Laboratory Staff
Received By: GTN
Date & Time : 3/8/21 2:50pm
Signature: GTN

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0

Report number: 810485

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CLIENT DETAILS

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Project Manager : **ALAN HALPIN**
Email for results : admin@geotestservices.com.au

Purchase Order :
PROJECT Number : **P33391.1**
PROJECT Name : **9 Palaran Avenue North Kellyville**

COC Number :
Eurofins | mgt quote ID : **180326GEO**
Data output format:

Special Directions & Comments :

DUP1A & DUP2A to be analysed at alternate Eurofins lab from primary batch (ie.melb/bris)

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	OCP	ASBESTOS QUANTIFICATION	SUITE B1	ORGANIC CARBON CONTENT	CLAY CONTENT	CEC	pH
33	DUP1	3/08/2021	SOIL		X	X								
34	DUP1A	3/08/2021	SOIL		X	X								
35	DUP2	3/08/2021	SOIL		X	X								
36	DUP2A	3/08/2021	SOIL		X	X								
37	SSEIL	3/08/2021	SOIL		X	X								
38	TSTB	3/08/2021	SOIL	X							X	X	X	X
39		3/08/2021	SOIL							X				
40		3/08/2021	SOIL											
41		3/08/2021	SOIL											
42		3/08/2021	SOIL											
43		3/08/2021	SOIL											
44		3/08/2021	SOIL											
45		3/08/2021	SOIL											
46		3/08/2021	SOIL											
47		3/08/2021	SOIL											
48		3/08/2021												

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP BAG
						X	
						X	
						X	
						X	
						X	
				X			

Sample comments:
Fwd: see comments
Fwd: see comments

PREPARED BY: **A . HALPIN**
Date & Time : **3/08/2021**
Signature:

Laboratory Staff
Received By: GTV
Date & Time : 3/8/21 2.54pm
Signature: GTV

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0

Report number: 810485

eurofins | mgt

☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
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☐ **Brisbane**
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Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
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Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GEOTEST SERVICES PTY LTD	Contact Name : DAVID SPASOJEVIC	Purchase Order :	COC Number :
Office Address : 18/24 GARLING ROAD	Project Manager : ALAN HALPIN	PROJECT Number : P33391.1	Eurofins | mgt quote ID : 180326GEO
KINGS PARK, N.S.W. 2148	Email for results : admin@geotestservices.com.au	PROJECT Name : 9 Palaran Avenue North Kellyville	Data output format:
PH: 9671 4443 FAX: 9671 4343			

Special Directions & Comments :

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	ASBESTOS QUANTIFICATION
1	TP1 0.1-0.2	3/08/2021	SOIL		X	X		
2	TP2 0.2-0.3	3/08/2021	SOIL		X	X		X
3	TP3 0.2-0.3	3/08/2021	SOIL		X			X
4	TP4 0.2-0.3	3/08/2021	SOIL		X	X		X
5	TP5 0.2-0.3	3/08/2021	SOIL		X	X		X
6	TP6 0.0-0.1	3/08/2021	SOIL		X		X	X
7	TP7 0.1-0.2	3/08/2021	SOIL		X	X		X
8	TP13 0.1-0.2	3/08/2021	SOIL		X	X		
9	TP14 0.4-0.5	3/08/2021	SOIL		X	X		X
10	TP15 0.3-0.4	3/08/2021	SOIL		X	X		X
11	TP24 0.0-0.1	3/08/2021	SOIL	X			X	
12	TP25 0.1-0.2	3/08/2021	SOIL		X	X		
13	TP26 0.2-0.3	3/08/2021	SOIL		X	X		X
14	TP27 0.2-0.3	3/08/2021	SOIL	X				X
15	TP28 0.1-0.2	3/08/2021	SOIL		X	X		X
16	TP29 0.1-0.2	3/08/2021	SOIL	X				

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP BAG
						X	
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	
						X	X
						X	X
						X	
						X	
						X	
						X	X
						X	X

Sample comments:

PREPARED BY: A . HALPIN
Date & Time : 3/08/2021
Signature:

Laboratory Staff
Received By:
Date & Time : 3/8/21 2:50 pm
Signature:

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0

Report number: 814485

814513

eurofins | mgt

Sydney ☑
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Email: enviro.bris@mgtlabmark.com.au

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2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GEOTEST SERVICES PTY LTD
Office Address : 18/24 GARLING ROAD
KINGS PARK, N.S.W. 2148
PH: 9671 4443 FAX: 9671 4343

Contact Name : DAVID SPASOJEVIC
Project Manager : ALAN HALPIN
Email for results : admin@geotestservices.com.au

Purchase Order :
PROJECT Number : P33391.1
PROJECT Name : 9 Palaran Avenue North Kellyville

COC Number :
Eurofins | mgt quote ID : 180326GEO
Data output format:

Special Directions & Comments :

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	OCP	ASBESTOS QUANTIFICATION	SUITE B1
17	TP32 0.1-0.2	3/08/2021	SOIL		X	X			X	
18	TP35 0.1-0.2	3/08/2021	SOIL		X	X			X	
19	TP36 0.1-0.2	3/08/2021	SOIL		X		X		X	
20	TP37 0.1-0.2	3/08/2021	SOIL		X	X			X	
21	TP38 0.0-0.1	3/08/2021	SOIL		X				X	
22	TP39 0.1-0.2	3/08/2021	SOIL		X	X			X	
23	TP40 0.0-0.1	3/08/2021	SOIL		X	X			X	
24	TP41 0.1-0.2	3/08/2021	SOIL		X				X	
25	TP42 0.2-0.3	3/08/2021	SOIL		X	X			X	
26	TP43 0.1-0.2	3/08/2021	SOIL	X			X			
27	SP1	3/08/2021	SOIL		X	X			X	
28	SP2	3/08/2021	SOIL		X				X	
29	SP3	3/08/2021	SOIL		X	X			X	
30	SP4	3/08/2021	SOIL		X				X	
31	SS1	3/08/2021	SOIL						X	
32	SS2	3/08/2021	SOIL						X	

Analytes

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP.BAG
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	X
						X	
						X	X
						X	X
						X	X
							X

Sample comments:

PREPARED BY: A . HALPIN
Date & Time : 3/08/2021
Signature:

Laboratory Staff
Received By: GTV
Date & Time : 3/8/21 2:50pm
Signature: GTV

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0

Report number: 810485

eurofins | mgt

☑ **Sydney**
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☐ **Melbourne**
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Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : **GEOTEST SERVICES PTY LTD**
Office Address : **18/24 GARLING ROAD**
KINGS PARK, N.S.W. 2148
PH: 9671 4443 FAX: 9671 4343

Contact Name : DAVID SPASOJEVIC
Project Manager : **ALAN HALPIN**
Email for results : admin@geotestservices.com.au

Purchase Order :
PROJECT Number : **P33391.1**
PROJECT Name : **9 Palaran Avenue North Kellyville**

COC Number :
Eurofins | mgt quote ID : **180326GEO**
Data output format:

Special Directions & Comments :

DUP1A & DUP2A to be analysed at alternate Eurofins lab from primary batch (ie.melb/bris)

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	SUITE M8	SUITE B7*1	SUITE B13	SUITE B14	OCP	ASBESTOS QUANTIFICATION	SUITE B1	ORGANIC CARBON CONTENT	CLAY CONTENT	CEC	pH
33	DUP1	3/08/2021	SOIL		X	X								
34	DUP1A	3/08/2021	SOIL		X	X								
35	DUP2	3/08/2021	SOIL		X	X								
36	DUP2A	3/08/2021	SOIL		X	X								
37	SSEIL	3/08/2021	SOIL	X							X	X	X	X
38	TSTB	3/08/2021	SOIL							X				
39		3/08/2021	SOIL											
40		3/08/2021	SOIL											
41		3/08/2021	SOIL											
42		3/08/2021	SOIL											
43		3/08/2021	SOIL											
44		3/08/2021	SOIL											
45		3/08/2021	SOIL											
46		3/08/2021	SOIL											
47		3/08/2021	SOIL											
48		3/08/2021												

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

1LP	250P	125P	1LA	40mL vial	HDPE	Jar	ZIP.BAG
						X	
						X	
						X	
						X	
						X	
				X			

Sample comments:
Fwd: see comments
Fwd: see comments

PREPARED BY: **A . HALPIN**
Date & Time : **3/08/2021**
Signature:

Laboratory Staff
Received By: GTV
Date & Time : 3/8/21 2.54pm
Signature: GTV

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0
Report number: 810485

eurofins | Environment Testing

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

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
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NATA # 1261
Site # 1254

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Unit F3, Building F
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NATA # 1261 Site # 18217

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NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	Geotest Services
Contact name:	Dave Spasojevic-All Results
Project name:	9 PALARAN AVENUE NORTH KELLYVILLE
Project ID:	P3391.1
Turnaround time:	5 Day
Date/Time received	Aug 3, 2021 2:54 PM
Eurofins reference	814485

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 0 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

DUP1A and DUP2A analysed under #814513.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Dave Spasojevic-All Results - admin@geotestservices.com.au.

Note: A copy of these results will also be delivered to the general Geotest Services email address.

eurofins | Environment Testing

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

Australia

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

Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**														
1	TP1 0.1-0.2	Aug 03, 2021		Soil	S21-Au04613							X			X		X		
2	TP2 0.2-0.3	Aug 03, 2021		Soil	S21-Au04614		X					X			X		X		
3	TP3 0.2-0.3	Aug 03, 2021		Soil	S21-Au04615		X								X		X		
4	TP4 0.2-0.3	Aug 03, 2021		Soil	S21-Au04616		X					X			X		X		
5	TP5 0.2-0.3	Aug 03, 2021		Soil	S21-Au04617		X					X			X		X		
6	TP6 0.0-0.1	Aug 03, 2021		Soil	S21-Au04618		X						X		X		X		
7	TP7 0.1-0.2	Aug 03, 2021		Soil	S21-Au04619		X					X			X		X		
8	TP13 0.2-0.3	Aug 03, 2021		Soil	S21-Au04620							X			X		X		
9	TP14 0.4-0.5	Aug 03, 2021		Soil	S21-Au04621		X					X			X		X		

eurofins | Environment Testing

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

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IANZ # 1327

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

Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
10	TP15 0.3-0.4	Aug 03, 2021		Soil	S21-Au04622		X					X			X		X		
11	TP24 0.0-0.1	Aug 03, 2021		Soil	S21-Au04623						X		X		X				
12	TP25 0.1-0.2	Aug 03, 2021		Soil	S21-Au04624							X			X		X		
13	TP26 0.2-0.3	Aug 03, 2021		Soil	S21-Au04625		X					X			X		X		
14	TP27 0.2-0.3	Aug 03, 2021		Soil	S21-Au04626		X				X				X				
15	TP28 0.1-0.2	Aug 03, 2021		Soil	S21-Au04627		X					X			X		X		
16	TP29 0.1-0.2	Aug 03, 2021		Soil	S21-Au04628						X				X				
17	TP32 0.1-0.2	Aug 03, 2021		Soil	S21-Au04629		X					X			X		X		
18	TP35 0.1-0.2	Aug 03, 2021		Soil	S21-Au04630		X					X			X		X		
19	TP36 0.1-0.2	Aug 03, 2021		Soil	S21-Au04631		X						X		X		X		
20	TP37 0.1-0.2	Aug 03, 2021		Soil	S21-Au04632		X					X			X		X		

eurofins | Environment Testing

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

Australia

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6 Monterey Road
Dandenong South VIC 3175
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NATA # 1261 Site # 1254

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NATA # 1261 Site # 20794

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NATA # 1261 Site # 23736

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NATA # 1261 Site # 25079

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Phone : +64 9 526 45 51
IANZ # 1327

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

Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

Order No.:
Report #: 814485
Phone: 02 9671 4443
Fax: 02 9671 4343

Received: Aug 3, 2021 2:54 PM
Due: Aug 10, 2021
Priority: 5 Day
Contact Name: Dave Spasojevic-All Results

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						% Clay	Asbestos - WA guidelines	pH (1:5 Aqueous extract at 25°C as rec.)	Total Organic Carbon	Metals M8	Metals M8	Suite B13: OCP/PCB	Suite B14: OCP/OPP	Moisture Set	Moisture Set	Cation Exchange Capacity	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
21	TP38 0.0-0.1	Aug 03, 2021		Soil	S21-Au04633		X								X		X		
22	TP39 0.1-0.2	Aug 03, 2021		Soil	S21-Au04634		X					X			X		X		
23	TP40 0.0-0.1	Aug 03, 2021		Soil	S21-Au04635		X					X			X		X		
24	TP41 0.1-0.2	Aug 03, 2021		Soil	S21-Au04636		X								X		X		
25	TP42 0.2-0.3	Aug 03, 2021		Soil	S21-Au04637		X					X			X		X		
26	TP43 0.1-0.2	Aug 03, 2021		Soil	S21-Au04638						X		X		X				
27	SP1	Aug 03, 2021		Soil	S21-Au04639		X					X			X		X		
28	SP2	Aug 03, 2021		Soil	S21-Au04640		X								X		X		
29	SP3	Aug 03, 2021		Soil	S21-Au04641		X					X			X		X		
30	SP4	Aug 03, 2021		Soil	S21-Au04642		X								X		X		
31	SS1	Aug 03, 2021		Soil	S21-Au04643		X												

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IANZ # 1290

Company Name: Geotest Services
Address: Unit 18/24 Garling Rd
Kings Park
NSW 2148

Project Name: 9 PALARAN AVENUE NORTH KELLYVILLE
Project ID: P3391.1

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Melbourne Laboratory - NATA Site # 1254								X	X	X				X	X	X	X		
Sydney Laboratory - NATA Site # 18217							X				X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X													
Perth Laboratory - NATA Site # 23736																			
Mayfield Laboratory - NATA Site # 25079																			
External Laboratory																			
32	SS2	Aug 03, 2021		Soil	S21-Au04644		X												
33	DUP1	Aug 03, 2021		Soil	S21-Au04645							X			X		X		
34	DUP2	Aug 03, 2021		Soil	S21-Au04647							X			X		X		
35	SSEIL	Aug 03, 2021		Soil	S21-Au04649	X		X	X	X				X		X			
36	TRIP BLANK	Aug 03, 2021		Soil	S21-Au04650										X			X	
37	TRIP SPIKE	Aug 03, 2021		Soil	S21-Au04651										X				X
Test Counts						1	26	1	1	5	5	21	4	35	35	1	28	1	1

APPENDIX D

Site Photographs

Above image showing typical example of Site condition, showing the eastern portion of the site. Image collected from centre of the site the Site facing NE.

Above image showing example of Site conditions present within the western portion of the Site including the residential dwelling. Image taken from centre of site facing NW.

Above image showing example of granny flat located on the western boundary of the site. Image taken from northern portion of site facing SW.

Image showing example of structures located in the north-eastern corner of the site. Image taken from north-eastern corner facing W.

Image showing example of surface stored wastes and debris observed at multiple locations in the north-eastern portion of the site.

Additional image showing example of stored wastes and debris located in the north-eastern portion of the site.

Image showing example of fill materials containing elevated concentrations of foreign materials (brick).

Above image showing example of residual soil profile encountered at the Site.