
SOIL INVESTIGATION & STOCKPILE ASSESSMENT



CLIFT FREIGHT SERVICES

**ERLDUNDA DESERT OAKS RESORT
CORNER STUART & LASSETER HIGHWAYS
ERLDUNDA
NORTHERN TERRITORY**

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EXECUTIVE SUMMARY

Echo Risk Consulting was engaged by Clift Freight Services to conduct a soil investigation and stockpile assessment at the Erldunda Desert Oaks Resort, where a diesel spill occurred during refuelling of an aboveground storage tank and near surface soils were subsequently remediated. The objectives of the investigation were to assess whether the remediation works following the spill were sufficient to remove the impacted soil from the area and to assess the contamination status of the resulting stockpiled soil.

The soil investigation comprised the drilling of 15 soil bores around the area of the spill. Results of the investigation indicate the remediation works have successfully removed the bulk of the impacted soil. Low concentrations of residual hydrocarbon impacted soils above the adopted ecological screening levels were identified, predominantly in near surface soils around the edges of the area that was excavated by the client. These impacts may be associated with the spill, however given the area is used as an unsealed carpark and driveway, the impacts could also potentially be associated with leaks/spills from general site operations.

All results from the remediated area are below the adopted management limits and health based criteria. Given the absence of ecological receptors in the area of the spill, further remediation works do not appear to be warranted.

Stockpiled soil generated from the excavation works contains elevated hydrocarbon concentrations and are not considered suitable for re-use at the site without further remediation works being undertaken. Echo understands the client is currently considering whether to undertake onsite remediation of the stockpiled soil or arrange for the soil to be disposed offsite to an appropriately licenced facility.

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1 INTRODUCTION

1.1 Background

Echo Risk Consulting (Echo) was commissioned by Clift Freight Services (Clift) to undertake a soil investigation and stockpile assessment at the Erldunda Desert Oaks Resort, located at the corner of Stuart Highway and Lasseter Highway, Erldunda, Northern Territory ('the site'). The approximate location of the site is presented in Figure 1, and further site details are provided in Section 2.1.



Figure 1: Site Location

Echo understands that on 13 April 2025, a diesel spill occurred while delivering fuel into an aboveground fuel tank located within the Erldunda Desert Oaks Resort. A hose fitting connection reportedly failed resulting in an estimated 2,500L of diesel spilling on the adjacent ground surface and running some distance across an unpaved internal access road. The spill area was estimated to cover an area of approximately 60m x 5m based on information provided by Clift.

Echo was advised that prompt actions were implemented several days after the spill involving the excavation and stockpiling of diesel impacted soil from across the spill area. Information provided by Clift suggests that a total of approximately 200 tonnes of material was excavated from the spill area, with excavation depths generally less than 0.5m, but ranging up to almost 2m where diesel pooled in a relatively small area.

Echo was advised that the following works were completed as part of the remediation activities:

- Clift mobilised to site and excavated soils that were either visually stained, or odorous.
- Excavated soils were transported to an area to the northwest of the main Resort area and stockpiled on plastic sheeting.
- The excavation was backfilled with soils to fill / level the surface of the area. The material used for backfilling included approximately 100 tonnes of sandy material from a stockpile located on

adjacent land to the north of the site, approximately 25 tonnes of quarry rubble from Port Augusta and approximately 75 tonnes of quarry rubble from a site located 50km south of Kulgara.

A plan showing the approximate extent of the diesel spill and location of the stockpiled soil is presented as Figure 2. Photographs taken by Clift during remediation works follow.



Figure 2: Diesel spill and stockpile location



Photograph 1: View northeast across spill area during remediation works



Photograph 2: Deeper excavation area where diesel had pooled

1.2 Objectives

The Northern Territory EPA (NT EPA) were notified of the spill on 15 April 2025. Following subsequent correspondence between NT EPA, Clift and Echo it was agreed to conduct intrusive investigations at the site to achieve the following objectives:

- Determine whether any site contamination remains following the remediation works completed by Clift around the diesel spill.
- If contamination remains, determine the lateral and vertical extent of remaining contamination and develop a remediation plan to address the remaining contamination.
- Determine the contamination status of the stockpiled soils generated from the remediation works.

1.3 Scope of Work

To satisfy the objectives of the investigation, a soil investigation was carried out to assess the contamination status of soil in the footprint of the diesel spill (as advised by the client), areas outside of the spill footprint, and soil stockpiles generated during the remediation works. All works completed at the site have been documented within this report.

The investigation has been completed with reference to industry standard and guidelines including:

- National Environment Protection (Assessment of Site Contamination) 1999 as amended 2013 (NEPM).
- NT EPA publication 'Contaminated Land Guideline' June 2017.
- Australian Standard 'Guide to the investigation and sampling of potentially contaminated soil': AS4482.1-2005 (*withdrawn: 10 February 2022, but not yet replaced*).
- CRC Care Technical Report No. 10: Health screening levels for petroleum hydrocarbons in soil and groundwater.

The scope of work completed by Echo does not purport to be a comprehensive environmental site investigation and focussed on the assessment of soil conditions in specific areas of the site. No assessment of groundwater or soil vapour has been undertaken.

2 SITE INFORMATION

2.1 Site Identification

Site details are presented in Table 1 below.

Table 1: Site Details

Item	Details
Common Name	Erlunda Desert Oaks Resort
Address	Corner Stuart Highway and Lasseter Highway, Erlunda 19668 Stuart Highway, Ghan (ntlis.nt.gov.au)
Legal Description	NT Portion 01794 plan S80/114
Zoning	No NT Planning Scheme zone applies

2.2 Site Description and Current Land Use

The Erlunda Desert Oaks Resort is located within an essentially rectangular shaped allotment of approximately 8.91 hectares. The site comprises a Shell service station fronting Stuart Highway and a tourist resort, including accommodation buildings, a caravan park area with ablution blocks, and a supermarket/ shop/ restaurant. The site is powered by diesel generators located in the eastern portion of the site. The approximate allotment boundary is shown on Figure 1 and Figure 2. A plan showing the location of the main site features of the Erlunda Desert Oaks Resort is presented as Figure 3.

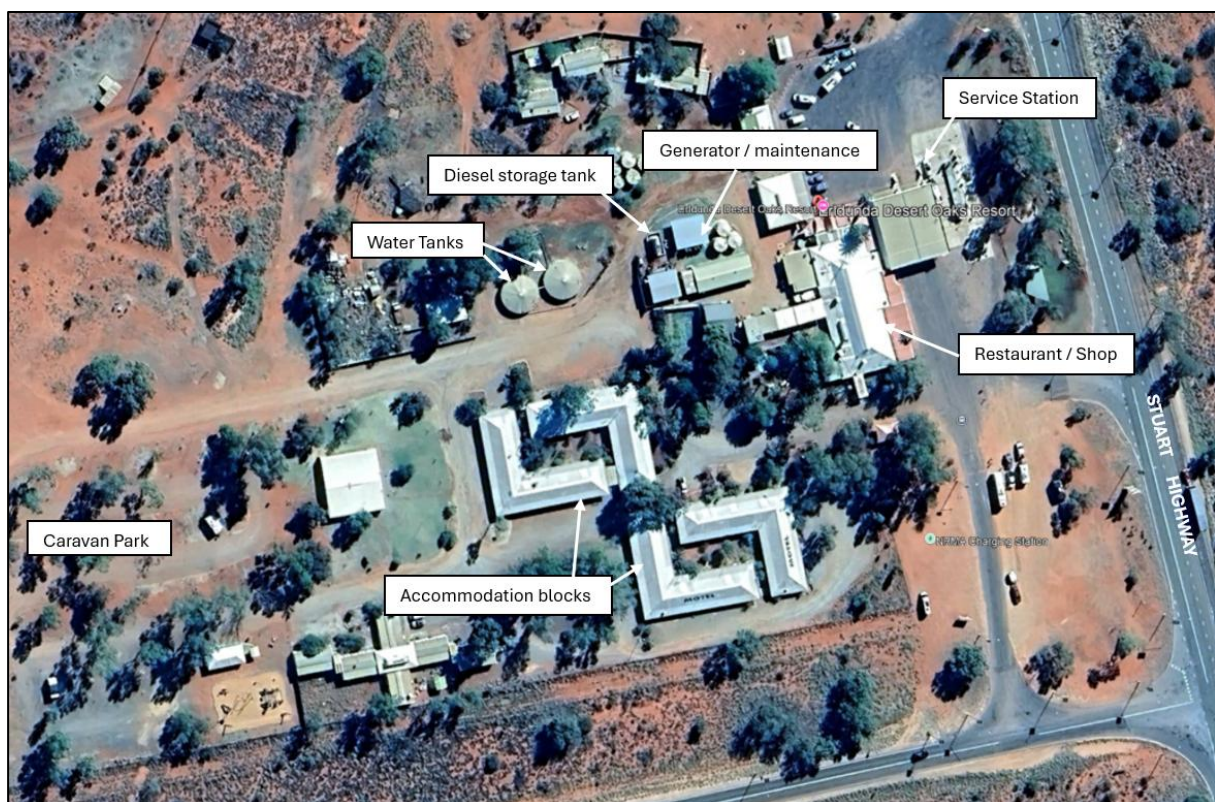


Figure 3: Site features

3 ENVIRONMENTAL SETTING

3.1 Physical Setting

The site lies approximately 180km south-southwest of Alice Springs. The site is surrounded by vacant rural land in all directions, with Stuart Highway bordering the site to the east and Lasseter Highway to the south. Land to the north of the main site is vacant, but contains wastewater ponds, and some general storage used by the Eridunda Desert Oaks Resort.

The site and surrounding area have a gentle slope to the southwest. The site lies at approximately 420m Australian Height Datum (m AHD). There are no permanent waterbodies within 2km of the site.

3.2 Regional Geology

The 1:250,000 Australia Geological Series of maps published by the Department of Mines and Energy shows the site lies in the Amadeus Basin, and is underlain by quaternary aged sand sheets and dune fields comprising sand, minor clay and some gibber.

3.3 Regional Hydrogeology

A search of nearby groundwater wells was conducted using the database published on data.nt.gov.au. Three bores were identified within 2km of the site. The search indicated that the nearest groundwater wells to the site are as follows:

- 330m to the north: A bore drilled to 45 metres below ground level (m bgl) in 1983 for production purposes. This bore reportedly had a salinity of 5,910 μ s/cm (approx. 3,800mg/L total dissolved solids (TDS)) in 1983, but was reportedly dry in 1991.
- 330m to the northwest: A bore drilled to 50m bgl in 1984 for production purposes. Logs from the well show water was first struck at a depth of 13m bgl, with a standing water level of 8m bgl in 1984 and 9.5m bgl in 1991. Water from the bore had a salinity of 4,343mg/L TDS and a pH of 7.3. The bore is listed as 'abandoned' on the data.nt.gov.au database.
- 670m to the southwest: A bore drilled to 45m bgl in 1983 for production purposes however no water was encountered during drilling.

4 SOIL INVESTIGATION – SPILL AREA

4.1 Scope of Work and Rationale

Soil investigations were undertaken on 16 May 2025 by an experienced environmental engineer. To satisfy the objectives of the investigation (refer Section 1.2), 15 bores were drilled across the area where the diesel spill had occurred. The rationale for the bore locations, and depths of the bores are presented in Table 2 and a plan showing the location of the soil bores is shown in Figure 4.

Table 2: Investigation rationale

Bore ID	Depths	Rationale
BH1, BH2, BH3	1.0m	Bores drilled along the approximate centre line of the spill (as advised by Clift and onsite personnel) where diesel travelled along a shallow drainage channel towards the area where the majority had pooled. These bores were drilled to ensure excavations had extended to sufficient depth.
BH4, BH5	2.2m	Bores drilled in the area where deeper excavations were completed to remove soils where the diesel spill had pooled to assess whether excavations had extended to sufficient depth.
BH6-BH15 inclusive	0.25 – 0.5m	Bores drilled outside of the line of the spill to assess whether the lateral extent of the excavation was sufficient.

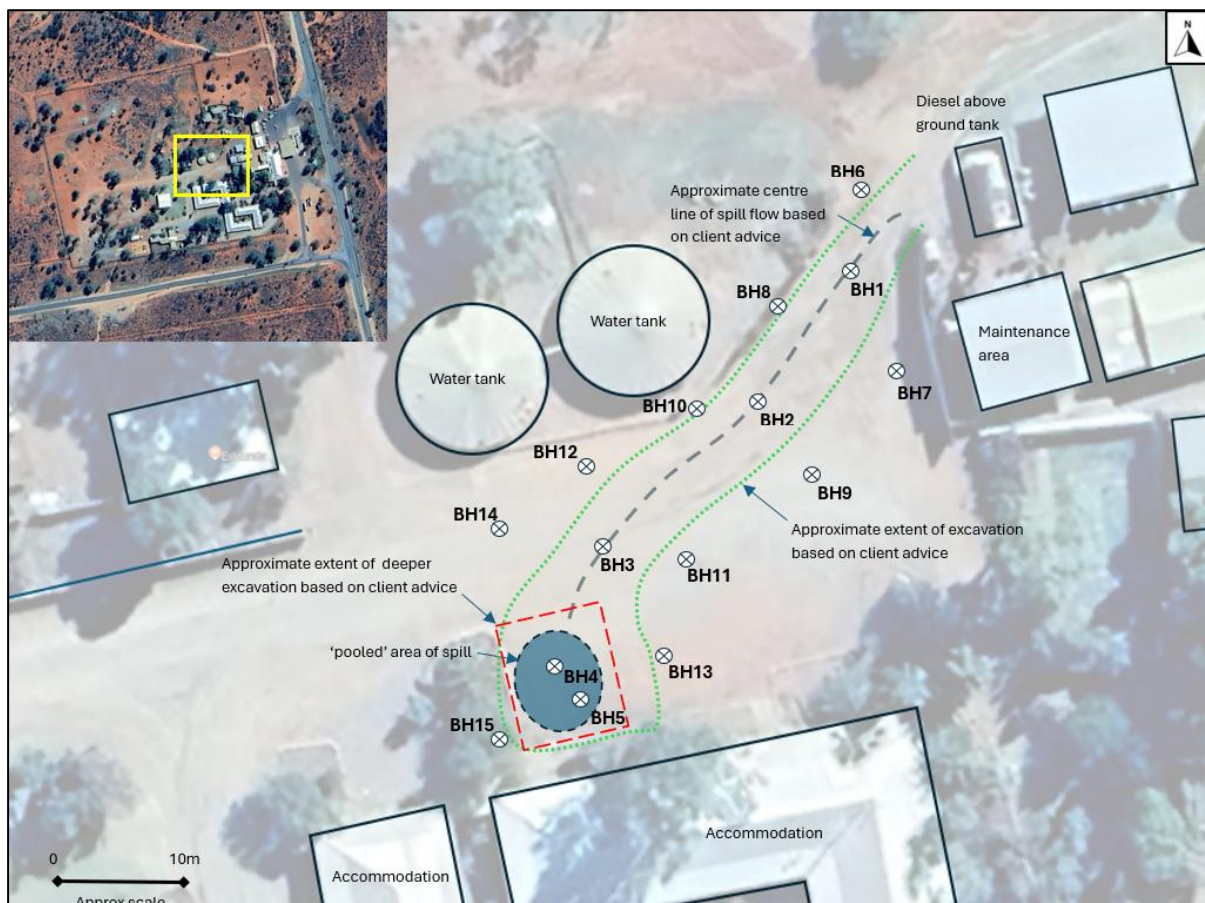


Figure 4: Soil Test Locations

4.2 Methodology

The following methodology was adopted for the soil investigation:

- All soil bores were drilled using decontaminated hand auger equipment.
- The soils were logged by an experienced environmental professional, and representative soil samples were collected for possible laboratory analyses at regular depth intervals with additional samples collected if there was a change in lithology or indications of contamination such as discolouration, odour and or inclusions.
- Field screening was conducted during soil sampling for volatile compounds using a photo-ionisation detector (PID).
- A fresh pair of disposable gloves were worn by the sampler when collecting each individual sample and soil samples were placed into Teflon sealed glass jars supplied by the laboratory.
- Soil samples were stored in an ice filled portable esky and transported to the analytical laboratory with chain of custody documentation. All laboratories used were accredited by the National Association of Testing Authorities (NATA).

4.3 Soil Analytical Program

Selected samples were analysed in the laboratory for potential contaminants of concern. 28 samples were analysed for a suite of chemicals associated with diesel fuel contamination, including total recoverable/petroleum hydrocarbons (TRH/TPH) and BTEXN (benzene, toluene, ethylbenzene, xylenes and naphthalene).

The laboratories used for the soil investigation were Eurofins (primary laboratory) and ALS Laboratory Group (ALS) (secondary laboratory). Both laboratories are approved by the National Association of Testing Authorities (NATA) and the analyses conducted are within their NATA registration.

Field duplicate and blank samples were also collected during the soil investigation and subsequently analysed. A discussion of the quality assurance (QA) and quality control (QC) results and procedures undertaken is presented in Section 5.

4.4 Soil Investigation / Screening Levels

The main chemicals of interest are fuel related compounds (specifically TRH). Health Screening Levels (HSLs) provided in the NEPM are adopted in scenarios where there might be vapour intrusion into overlying structures. The investigation area is in an area of existing carpark/access road and highly unlikely to be developed in the foreseeable future based on the site layout, however HSLs for commercial/industrial use have also been included to assess any vapour intrusion risk should buildings be established over the area in the future.

Soil concentrations have been compared with criteria specified in the NEPM and CRC CARE Technical Report no. 10 – Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document. The following investigation exposure settings were considered relevant to the site's current use:

- Ecological Screening Levels (ESLs) for urban residential and public open space areas and for commercial/industrial land use.
- Management Limits for petroleum hydrocarbon compounds for residential, parkland and public open space use and for commercial/industrial land use.
- HSLs for vapour intrusion for recreational/open space (HSL C) and commercial / industrial (HSL D) land uses.
- HSLs for direct contact for recreational/open space (HSL C) and commercial / industrial (HSL D) land uses.

All screening levels were selected based on a coarse material type.

4.5 Soil Investigation Results

4.5.1 Subsurface Conditions

The subsurface conditions encountered across the site were relatively consistent, and comprised a surface layer of crushed rock/quarry rubble at most locations, underlain by red brown silty sand. The clay content was noted to increase with depth from around 1.8m bgl in the two deeper bores (BH4 and BH5). At some locations (bores BH8, BH10 and BH15), red brown silty sands were encountered from the surface.

No staining was observed during the soil investigation. Slightly odorous soils were noted from near surface soils (<0.2m) at bores BH8 and BH10.

The soil borehole logs are provided in Appendix A.

4.5.2 Field Screening of Volatile Organic Compounds

Selected samples were screened for volatile organic compounds (VOCs) in the field using a photoionisation detector (PID) that was calibrated prior to use. Samples were placed in sealable plastic bags, agitated, and then a headspace reading taken using the PID.

Slightly elevated readings (above background conditions of 2ppm) were recorded in near surface (less than 0.5m) soils at several boreholes (bores BH2, BH4, BH5, BH6, BH8, BH10 and BH11). The maximum reading recorded during the investigation was 37ppm. None of the measured PID readings were evidence of gross soil contamination at the depths assessed as part of this investigation.

PID readings are noted on the soil bore logs presented in Appendix A. The PID calibration record is also provided in Appendix A.

4.5.3 Laboratory Testing Results

Chemical test results of the soil investigation are summarised in the tables attached to this report. The NATA laboratory certificates are provided in Appendix B.

All chemical results for TPH/TRH and BTEXN were below the adopted management limits and health screening levels for recreational/open space and commercial/industrial land uses.

Some exceedances of adopted ecological screening levels were reported, as follows:

- The TRH C₁₀-C₁₆ results from samples BH2-2 (0.05-0.2m), BH8-1 (0-0.1m), BH10-1 (0-0.1m), BH11-1 (0-0.1m) and BH11-2 (0-25-0.35m) ranged between 120mg/kg and 350mg/kg. These results were equal to or exceeded the adopted ecological screening level for urban residential and public open space use of 120mg/kg. The results at BH2-2, BH8-1, BH10-1 and BH11-1 also exceeded the adopted ecological screening level for commercial / industrial use of 170mg/kg.
- The TRH >C₁₆-C₃₄ result of 330mg/kg from sample BH2-2 (0.05-0.2m) exceeded the adopted ecological screening level for urban residential and public open space use of 300mg/kg.

5 STOCKPILE ASSESSMENT

5.1 Sampling Rationale and Methodology

On 16 May 2025 an experienced environmental engineer inspected the stockpiled soils and collected ten representative samples from the stockpile (SP1 to SP10, inclusive). The samples were collected using hand equipment from various locations and depths throughout the stockpile. A fresh pair of disposable gloves were worn by the sampler when collecting each individual sample.

Field screening was conducted during soil sampling of subsamples for volatile compounds using a photo-ionisation detector (PID). Soil samples were placed into acid rinsed and solvent washed Teflon sealed glass jars provided by the testing laboratory. All soil samples were stored in an ice filled portable cooler immediately following sampling. Samples were then delivered to the testing laboratory under chain of custody procedures.

The approximate location of the stockpiled soil at the time of sampling is shown in Figure 2 and photographs of the stockpile at the time of sampling follow.



Photograph 3: View west towards stockpile



Photograph 4: view northeast towards stockpile

The stockpile was estimated to have a volume of 100-150m³ and comprised red brown silty sand material, which is consistent with advice from Clift that approximately 200 tonnes of soil was excavated from the spill area during remediation works.

5.2 Soil Analytical Program

The soil analytical program comprised:

- One sample was tested for an NSW DECC Waste Classification Suite¹, a broad suite of chemicals required for classification purposes for landfills in the Northern Territory.
- Nine samples were tested for total recoverable / petroleum hydrocarbon (TRH/TPH) and BTEXN compounds, which were the primary chemicals of interest for the stockpile.

The sampling density and the testing regime is considered appropriate in terms of assessing the volume and material sampled.

Field duplicate and blank samples were also collected during the soil investigation in conjunction with works described in Section 4. A discussion of the quality assurance (QA) and quality control (QC) results and procedures undertaken is presented in Section 5.

5.3 Soil Investigation / Screening Levels

Stockpile results were compared to criteria as discussed in Section 4.4, noting that generic ecological and health investigation levels for open space and commercial/industrial land uses have also been considered for other non-diesel related chemicals.

5.4 Soil Investigation Results

5.4.1 Field Observations

The stockpile comprised red brown silty sand. No suspected asbestos containing material (ACM), or stained soils were identified during sampling. Hydrocarbon odours were noted from all samples collected from the stockpile.

5.4.2 Field Screening of Volatile Organic Compounds

All samples were screened for volatile organic compounds (VOCs) in the field using a photoionisation detector (PID) that was calibrated prior to use. Samples were placed in sealable plastic bags, agitated, and then a headspace reading taken using the PID. PID readings from the stockpile ranged between 40 and 198ppm

5.4.3 Laboratory Testing Results

Chemical test results of the soil investigation are summarised in the tables attached to this report. The NATA laboratory certificates are provided in Appendix B.

There were no reported results that exceeded the adopted laboratory detection limits and/or adopted investigation / screening levels for any of the following analytes tested:

- Heavy metals (arsenic, beryllium, cadmium, chromium, lead, mercury, molybdenum, nickel, selenium or zinc).
- BTEXN (benzene, toluene, ethyl benzene, xylenes and naphthalene) compounds.
- Polycyclic aromatic hydrocarbons.

¹ NSW DECC Waste Classification Screen – includes heavy metals, organochlorine pesticides, organophosphate pesticides, polycyclic aromatic hydrocarbons, TRH, BTEX, hexavalent and trivalent chromium, phenols, phthalates, acid herbicides, 2-4 dinitrotoluene, nitrobenzene, volatile organic compounds, cyanide and fluoride.

- Organochlorine pesticides.
- Organophosphate pesticides.
- Acid Herbicides.
- Phenolic compounds.
- Semi-volatile organic compounds.
- Phthalate esters.
- Volatile organic compounds.
- Fluoride.
- Cyanide.

Elevated concentrations of TRH were reported in all samples tested from the stockpile, as follows:

- The TRH C₆-C₁₀ result of 180mg/kg from sample SP9 was equal to the adopted ecological screening level for urban residential and public open space use.
- The TRH C₁₀-C₁₆ (F2, with naphthalene) results from all samples ranged between 1,800mg/kg and 4,700mg/kg (average 2,750mg/kg). These results all exceeded the adopted ecological screening level for urban residential and public open space use (120mg/kg), the adopted ecological screening level for commercial / industrial use (170mg/kg), and the management limits for residential, parkland and public open space use and commercial and industrial use (both 1,000mg/kg). The result from one sample (SP9), also exceeded the CRC CARE health screening level for direct contact in a residential/open space land use setting (3,800mg/kg).
- The TRH >C₁₆-C₃₄ results from all samples ranged between 1,200mg/kg and 3,000mg/kg (average 1,810mg/kg). These results all exceeded the adopted ecological screening level for urban residential and public open space use (120mg/kg). Seven of the ten sample results were equal to or exceeded the adopted ecological screening level for commercial / industrial use (1,700mg/kg). One sample result (SP9) also exceeded the management limit for residential, parkland and public open space use (2,500mg/kg).

6 QUALITY ASSURANCE / QUALITY CONTROL

This section presents the results of the QA / QC measures for investigations conducted for the site. QA / QC measures included:

- Appropriate sample labelling, preservation, storage and transport under chain of custody procedures.
- Collection and analyses of field QA / QC samples including duplicate samples, trip blanks and rinse blanks.
- Laboratory analyses conducted within appropriate holding times.
- Use of laboratories that hold NATA accreditation for the analyses undertaken.
- Analysis of laboratory QA / QC samples including matrix spikes, matrix spike duplicates, and surrogates.

6.1 Internal Laboratory QA / QC

The results of the internal quality assurance programs of the laboratory are presented with the NATA laboratory certificates in Appendix B.

Appropriate internal QA / QC were generally reported by the laboratories.

The laboratory limits of reporting are acceptable when compared with relevant guidelines.

6.2 Duplicate Soil Analyses

Field duplicate soil samples QC1 / QC2 (duplicates of BH2-2) and QC3 / QC4 (duplicates of BH6-1) were submitted for analyses at the primary and secondary laboratories, and analysed for the primary contaminants of concern TRH/TPH and BTEXN.

The frequency of field duplicate analyses is within the 1 per 20 (or 5%) analyses for the key contaminants of concern, which is in accordance with best practice methodologies.

Exceedances of the recommended relative percentage difference (RPD) comparison criteria of 50% were reported in the intra and inter laboratory duplicate soil analyses, and are summarised below:

- Sample BH2-2 and QC1 (primary duplicate): TRH C₁₀-C₁₆ (59%), TRH >C₁₀-C₄₀ (53%), TPH C₁₀-C₁₄ (58%), TPH C₁₅-C₂₈ (50%), TPH C₁₀-C₃₆ (53%).
- Sample BH2-2 and QC2 (secondary duplicate): TRH C₁₀-C₁₆ (69%), TRH >C₁₆-C₃₄ (75%), TRH >C₁₀-C₄₀ (72%), TPH C₁₀-C₁₄ (114%), TPH C₁₅-C₂₈ (56%), TPH C₁₀-C₃₆ (72%).

The elevated RPD results are considered likely to be a result of the samples used for the duplicate analyses not being thoroughly homogenised (mixed) to provide consistent results. Thorough homogenisation of duplicate samples when sampling for volatile compounds can result in the release of volatile contaminants, and is minimised where possible. Although RPD exceedances were reported in some comparable analyses, the exceedances of the 50% RPD criteria are generally minor. Although the precision of these results may be of reduced confidence, the reported results for the duplicate samples all have similar guideline exceedances, and do not affect the overall characterisation of site conditions.

A table summarising the field duplicate results is presented with the soil results summary tables attached to this report.

6.3 Blank Samples

A rinsate blank (RB1) and a trip blank (TB1) sample were collected during the soil investigations. Rinsate samples were collected from decontaminated sampling equipment where non-dedicated sampling equipment was used, and the trip blank samples were a laboratory supplied sample (placed in the esky during sample transport).

All reported concentrations were below laboratory reporting limits indicating that decontamination procedures were acceptable, cross contamination between samples and sampling equipment did not occur and there was no introduction of volatiles into the samples during transport. The results are presented in the laboratory certificates attached in Appendix B.

7 DISCUSSION

As described in Section 1.2, the objectives of the investigation were to assess whether remediation works around an area where a diesel spill had occurred at the Eriidunda Desert Oaks Resort have been completed adequately.

7.1 Remediation Works

The results of the investigation suggest the diesel clean up works have been largely successful, with the impacted soils being removed from the area of the spill. There are some minor residual impacts, predominantly in near surface soils around the edges of the area that was indicated to have been excavated.

All results are below the management limits, and health-based criteria.

Isolated results exceed the adopted ecological screening levels, which are intended to be protective of sensitive ecological receptors. The area of the spill is in a driveway/carpark area of the resort and is predominantly covered with gravel hardstand. It is considered unlikely that any sensitive environmental receptors exist in this area given the use.

Results of the investigation suggest that additional remediation work in this area is not warranted.

7.2 Stockpiled soil

Test results from the stockpiled soil show that the hydrocarbons concentrations in all samples were above the adopted ecological screening levels and management limits. Management limits are defined as *maximum values of petroleum hydrocarbon compounds that should remain on site following evaluation of human health and ecological risks and risks to groundwater resources*. The result in one sample also exceeded the adopted direct contact health screening level for recreational/open space land use.

The stockpiled soil is not currently considered suitable for re-use within the Eriidunda Desert Oaks Resort. The location and current management of the stockpile is considered appropriate, with the stockpile located at least 100 metres away from the boundary fence of the Eriidunda Desert Oaks Resort, stored on plastic and covered to prevent any impacts to underlying soils and to minimise any impacts from rainfall runoff.

At the time of reporting, it is understood that an assessment of whether the stockpiled soil will be remediated on site, or disposed offsite to landfill is currently underway.

8 CONCLUSIONS

Echo has conducted a soil investigation and stockpile assessment at the Erldunda Desert Oaks Resort, where a diesel spill occurred during refuelling of an above ground storage tank and near surface soils were subsequently remediated. The objectives of the investigation were to assess whether the remediation works completed following the spill were sufficient to remove the impacted soil from the area and to assess the contamination status of the resulting stockpiled soil.

The soil investigation completed by Echo comprised the drilling of 15 soil bores around the area of the spill. Results of the investigation show the remediation works have successfully removed the bulk of the impacted soil. Low concentrations of residual hydrocarbon impacted soils above the adopted ecological based screening levels were identified, predominantly in near surface soils around the edges of the area that was indicated to have been excavated. These impacts may be associated with the spill, however given the area is used as an unsealed carpark and driveway, the impacts could also potentially be associated with leaks/spills from general site operations.

All results from the remediated area are below the adopted management limits and health based criteria. Given the absence of ecological receptors in the area of the spill, further remediation works do not appear to be warranted.

Stockpiled soil generated during the excavation works contains hydrocarbon concentrations above adopted management limits and are not considered suitable for re-use at the site without further remediation works being undertaken.

RESULTS SUMMARY TABLES – SOIL

Field ID	Matrix Type	BH2-2	QC1	RPD (%)	BH2-2	QC2	RPD (%)	BH6-1	QC3	RPD (%)	BH6-1	QC4	RPD (%)
		Soil	Soil		Soil	Soil		Soil	Soil				
		Date	15/05/2025		15/05/2025	15/05/2025		15/05/2025	15/05/2025		15/05/2025	15/05/2025	
	Unit												
TRH													
C6-C10 without BTEX (F1)	mg/kg	< 20	< 20	NC	< 20	< 10	NC	< 20	< 20	NC	< 20	< 10	NC
C6-C10 with BTEX (F1)	mg/kg	< 20	< 20	NC	< 20	< 10	NC	< 20	< 20	NC	< 20	< 10	NC
C10-C16 without Naphthalene (F2)	mg/kg	350	640	59	350	170	69	< 50	< 50	NC	< 50	< 50	NC
C10-C16 with Naphthalene (F2)	mg/kg	350	640	59	350	170	69	< 50	< 50	NC	< 50	< 50	NC
>C16-C34 (F3)	mg/kg	330	530	47	330	150	75	< 100	< 100	NC	< 100	< 100	NC
>C34-C40 (F4)	mg/kg	< 100	< 100	NC	< 100	< 100	NC	< 100	< 100	NC	< 100	< 100	NC
>C10-C40	mg/kg	680	1170	53	680	320	72	< 100	< 100	NC	< 100	< 50	NC
TPH													
C6 - C9	mg/kg	< 20	< 20	NC	< 20	< 10	NC	< 20	< 20	NC	< 20	< 10	NC
C10 - C14	mg/kg	220	400	58	220	60	114	< 20	< 20	NC	< 20	< 50	NC
C15 - C28	mg/kg	460	770	50	460	260	56	< 50	< 50	NC	< 50	< 100	NC
C29-C36	mg/kg	< 50	< 50	NC	< 50	< 100	NC	< 50	< 50	NC	< 50	< 100	NC
C10 - C36 (Sum of total)	mg/kg	680	1170	53	680	320	72	< 50	< 50	NC	< 50	< 50	NC
BTEXN													
Benzene	mg/kg	< 0.1	< 0.1	NC	< 0.1	< 0.2	NC	< 0.1	< 0.1	NC	< 0.1	< 0.2	NC
Toluene	mg/kg	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC
Ethylbenzene	mg/kg	< 0.2	< 0.2	NC	< 0.2	< 0.5	NC	< 0.2	< 0.2	NC	< 0.2	< 0.5	NC
Xylene (m & p)	mg/kg	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC
Xylene (o)	mg/kg	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC	< 0.1	< 0.1	NC	< 0.1	< 0.5	NC
Xylene Total	mg/kg	< 0.3	< 0.3	NC	< 0.3	< 0.5	NC	< 0.3	< 0.3	NC	< 0.3	< 0.5	NC
Naphthalene	mg/kg												

* NC = No Comparison as results below detection limits

APPENDIX A SOIL BOREHOLE LOGS & PID CALIBRATION

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH1

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK. Light grey, gravel to 20mm size.	Dry	FILL	<2ppm	BH1-1 (0-0.1m)
0.25 - 0.35	SILTY SAND (SW). Red brown silty sand.	Slightly moist	NATURAL	6ppm	BH1-2 (0.25-0.35m)
0.4 - 0.5				7ppm	BH1-3 (0.4-0.5m)
0.9 - 1.0				2ppm	BH1-4 (0.9-1.0m)
1.0 - 2.0	BOREHOLE BH1 DISCONTINUED AT 1.0m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH2

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.05	CRUSHED ROCK. Light grey, gravel to 20mm size.	Dry	FILL	<2ppm	BH2-1 (0-0.05m)
	SILTY SAND (SW). Red brown silty sand.		NATURAL	<2ppm	BH2-2, QC1 & QC2 (0.05-0.2m)
0.5				10ppm	BH2-3 (0.4-0.5m)
1.0				<2ppm	BH2-4 (0.9-1.0m)
	BOREHOLE BH2 DISCONTINUED AT 1.0m				
1.5					
2.0					

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH3

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH3-1 (0-0.1m)
0.2 - 0.3	SILTY SAND (SW). Red brown silty sand.		NATURAL	<2ppm	BH3-2 (0.2-0.3m)
0.4 - 0.5				18ppm	BH3-3 (0.4-0.5m)
0.9 - 1.0				<2ppm	BH3-4 (0.9-1.0m)
1.0 - 2.0	BOREHOLE BH3 DISCONTINUED AT 1.0m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH4

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.4	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red silty sand.	Dry	FILL		
0.4 - 0.9	SILTY SAND (SW). Red brown silty sand. Moisture increasing with depth.		NATURAL/ DISTURBED NATURAL	18ppm	BH4-1 (0.4-0.5m)
0.9 - 1.4		Moist		37ppm	BH4-2 (0.9-1.0m)
1.4 - 1.9				22ppm	BH4-3 (1.4-1.5m)
1.9 - 2.2	CLAYEY SAND (SC). Red brown clayey sand, with olive brown clay inclusions.	Moist to wet		<2ppm	BH4-4 (2.1-2.2m)

BOREHOLE BH4 DISCONTINUED AT 2.2m

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH5

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.4	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red silty sand.	Dry	FILL		
0.4 - 1.4	SILTY SAND (SW). Red brown silty sand. Moisture increasing with depth.		NATURAL/ DISTURBED NATURAL	11ppm	BH5-1 (0.4-0.5m)
1.4 - 1.7		Moist		15ppm	BH5-2 (0.9-1.0m)
1.7 - 2.1		Moist to wet		<2ppm	BH5-3 (1.4-1.5m)
2.1 - 2.2	CLAYEY SAND (SC). Red brown clayey sand, with olive brown clay inclusions. Occasional rounded gravel inclusions to 10mm size.			<2ppm	BH5-4 (2.1-2.2m)

BOREHOLE BH5 DISCONTINUED AT 2.2m

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH6

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	30ppm	BH6-1 (0-0.1m)
0.4 - 0.5	SILTY SAND (SW). Red brown silty sand.		NATURAL	11ppm	BH6-2 (0.4-0.5m)
0.5 - 2.0	BOREHOLE BH6 DISCONTINUED AT 0.5m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH7

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.4	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH7-1 (0-0.1m)
0.4 - 0.5	SILTY SAND (SW). Red brown silty sand.		NATURAL	<2ppm	BH7-2 (0.4-0.5m)
0.5 - 2.0	BOREHOLE BH7 DISCONTINUED AT 0.5m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH8

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.5	SILTY SAND (SW). Red brown silty sand with occasional gravel to 10mm size near surface.	Dry	FILL Surface soils slightly odourous	12ppm	BH8-1 (0-0.1m)
			NATURAL	3ppm	BH8-2 (0.4-0.5m)
1.0	BOREHOLE BH8 DISCONTINUED AT 0.5m				
1.5					
2.0					

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH9

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH9-1 (0-0.1m)
0.1 - 0.5	SILTY SAND (SW). Red brown silty sand.		NATURAL	<2ppm	
0.5 - 2.0	BOREHOLE BH9 DISCONTINUED AT 0.5m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH10

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	SILTY SAND (SW). Red brown silty sand.	Dry	FILL Slightly odourous Orange plastic noted at 0.2m	15ppm	BH9-1 (0-0.1m)
BOREHOLE BH10 DISCONTINUED AT 0.25m - REFUSAL ON HARD LAYER/ITEM					
0.5					
1.0					
1.5					
2.0					

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH11

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK. Light grey brown with red brown sandy inclusions.	Dry	FILL	14ppm	BH11-1 (0-0.1m)
0.25 - 0.35				10ppm	BH11-2 (0.25-0.35m)
0.5 - 2.0	BOREHOLE BH11 DISCONTINUED AT 0.35m - REFUSAL ON HARD LAYER/ITEM, LIKELY GRAVELS				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH12

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.05	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH12-1 (0.05-0.15m)
	SILTY SAND (SW). Red brown silty sand.		NATURAL		
0.5	BOREHOLE BH12 DISCONTINUED AT 0.5m				
1.0				<2ppm	
1.5					
2.0					

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH13

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.05	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH13-1 (0.05-0.15m)
	SILTY SAND (SW). Red brown silty sand.		NATURAL		
0.5	BOREHOLE BH13 DISCONTINUED AT 0.5m				
1.0				<2ppm	
1.5					
2.0					

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH14

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	CRUSHED ROCK/SAND. Mix of light grey sandy gravel and red brown sand.	Dry	FILL	<2ppm	BH14-1 (0-0.1m)
0.1 - 0.4	SILTY SAND (SW). Red brown silty sand.		NATURAL		
0.4 - 0.5				<2ppm	BH14-2 (0.4-0.5m)
0.5 - 2.0	BOREHOLE BH14 DISCONTINUED AT 0.5m				

Client: Clift Freight Services
Project Ref: EC0360
Location: Erldunda Desert Oaks Resort
Drill Model: Hand Auger

Date: 15 May 2025
Logged by: NW
Bore/Pit ID: BH15

Diameter:

Depth (m)	Material Description	Moisture (D/M/W)	Observations (eg fill, stains, odours)	PID (ppm)	Sample Details
0.0 - 0.1	SILTY SAND (SW). Red brown silty sand. Some surface bark chips/organic matter.	Dry	NATURAL	<2ppm	BH15-1 (0-0.1m)
0.4 - 0.5				<2ppm	BH15-2 (0.4-0.5m)
0.5 - 2.0	BOREHOLE BH14 DISCONTINUED AT 0.5m				

EQUIPMENT CERTIFICATION REPORT

PGN9003827 GAS DETECTOR – MINIRAE PHOTOIONISATION DETECTOR

Plant Number: 234971 Serial Number: 592-916974

SENSOR	CALIBRATION GAS	CONC.	TRACEABILITY	RESULT	PASS
PID	ISOBUTYLENE	100 ppm	Lot # <u>293435</u>	<u>100.1</u>	<input checked="" type="checkbox"/>
PID	FRESH AIR	ZERO	NA	<u>0.0</u>	<input checked="" type="checkbox"/>

Data Cleared

Battery Charged <input checked="" type="checkbox"/> <u>80%</u>	6V Batt Pack Included <input checked="" type="checkbox"/>	Alkaline Batt x4 Included <input checked="" type="checkbox"/>
Temperature <u>19.5</u> °C	Inlet Filter Checked & x1 <input type="checkbox"/> x2 <input checked="" type="checkbox"/> . Supplied	

Note: Calibration traceability information is available upon request.

Always use filter/moisture trap (as provided). Please clean/decontaminate instrument and accessories before returning. A minimum 'Cleaning Fee' \$55.00 (Inc GST) may apply if instrument is returned contaminated.

Checked By: EC Date: 13/5/25 Signed: [Signature]

Accessories List:

User's Manual	Charger / Comms Adaptor	Wall Charger
2x Spare Air Filters	1x Spare Rechargeable Battery	Carry Transit Case



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APPENDIX B NATA LABORATORY CERTIFICATES – SOIL

Echo Risk Consulting
84 North Terrace
Kent Town
SA 5067



NATA Accredited
Accreditation Number 1261
Site Number 1254

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: **Nick Waniarcha**

Report **1222572-S**
 Project name **Environmental Assessment**
 Project ID **EC0360**
 Received Date **May 21, 2025**

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	24	< 20	39
TRH C10-C14	20	mg/kg	2300	2000	2100	2600
TRH C15-C28	50	mg/kg	2300	1900	2800	2800
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	4600	3900	4900	5400
TRH C6-C10	20	mg/kg	83	100	68	120
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	77	96	65	110
TRH >C10-C16	50	mg/kg	2800	2400	2900	3200
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	2799.4	2400	2900	3200
TRH >C16-C34	100	mg/kg	1600	1300	2000	2000
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	4400	3700	4900	5200
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	9.8	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	5.8	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Allyl chloride	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Volatile Organics						
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	0.9	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	0.8	-	-	-
m&p-Xylenes	0.2	mg/kg	2.5	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	2.9	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total*	0.3	mg/kg	5.4	-	-	-
Total MAH*	0.5	mg/kg	7.2	-	-	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	-	-
4-Bromofluorobenzene (surr.)	1	%	149	-	-	-
Toluene-d8 (surr.)	1	%	133	-	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	-	-	-
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	0.9	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	2.7	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-	-
Total PAH*	0.5	mg/kg	3.6	-	-	-
2-Fluorobiphenyl (surr.)	1	%	80	-	-	-
p-Terphenyl-d14 (surr.)	1	%	88	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-HCH	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchloroendate (surr.)	1	%	108	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	145	-	-	-
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	-	-	-

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
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	%	89	-	-	-
Phthalate Esters						
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	-	-	-
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Diethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Dimethyl phthalate	0.5	mg/kg	< 0.5	-	-	-
Acid Herbicides						
2,4-D	0.5	mg/kg	< 0.5	-	-	-
2,4-DB	0.5	mg/kg	< 0.5	-	-	-
2,4,5-T	0.5	mg/kg	< 0.5	-	-	-
2,4,5-TP	0.5	mg/kg	< 0.5	-	-	-
Actril (loxynil)	0.5	mg/kg	< 0.5	-	-	-
Dicamba	0.5	mg/kg	< 0.5	-	-	-
Dichlorprop	0.5	mg/kg	< 0.5	-	-	-
Dinitro-o-cresol	0.5	mg/kg	< 0.5	-	-	-
Dinoseb	0.5	mg/kg	< 0.5	-	-	-
MCPA	0.5	mg/kg	< 0.5	-	-	-
MCPB	0.5	mg/kg	< 0.5	-	-	-
Mecoprop	0.5	mg/kg	< 0.5	-	-	-
Warfarin (surr.)	1	%	42	-	-	-

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
2,4,5-Trichlorophenol	1	mg/kg	< 1	-	-	-
2,4,6-Trichlorophenol	1	mg/kg	< 1	-	-	-
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	-	-	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	-	-
Pentachlorophenol	1	mg/kg	< 1	-	-	-
Tetrachlorophenols - Total	10	mg/kg	< 10	-	-	-
Total Halogenated Phenol*	1	mg/kg	< 1	-	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	-	-	-
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	-	-	-
2-Nitrophenol	1.0	mg/kg	< 1	-	-	-
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	-	-	-
2,4-Dinitrophenol	5	mg/kg	< 5	-	-	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	-	-
Total cresols*	0.5	mg/kg	< 0.5	-	-	-
4-Nitrophenol	5	mg/kg	< 5	-	-	-
Dinoseb	20	mg/kg	< 20	-	-	-
Phenol	0.5	mg/kg	< 0.5	-	-	-
Phenol-d6 (surr.)	1	%	77	-	-	-
Total Non-Halogenated Phenol*	20	mg/kg	< 20	-	-	-
Semivolatile Organics						
2,4-Dinitrotoluene	0.2	mg/kg	< 0.2	-	-	-
Nitrobenzene	0.5	mg/kg	< 0.5	-	-	-
Chromium						
Chromium (hexavalent)	1	mg/kg	< 1	-	-	-
Cyanide						
Cyanide (free)	5	mg/kg	< 5	-	-	-
Cyanide (total)	5	mg/kg	< 5	-	-	-
Fluoride						
Fluoride	100	mg/kg	170	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	-	-	-
Beryllium	2	mg/kg	< 2	-	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-	-
Lead	5	mg/kg	< 5	-	-	-
Mercury	0.1	mg/kg	< 0.1	-	-	-
Molybdenum	5	mg/kg	< 5	-	-	-
Nickel	5	mg/kg	< 5	-	-	-
Selenium	2	mg/kg	< 2	-	-	-
Silver	2	mg/kg	< 2	-	-	-
Sample Properties						
% Moisture	1	%	3.0	4.3	2.4	2.4
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	0.3
Ethylbenzene	0.1	mg/kg	-	0.6	< 0.1	1.5
m&p-Xylenes	0.2	mg/kg	-	1.6	1.2	8.2

Client Sample ID			SP1	SP2	SP3	SP4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061270	M25-My0061271	M25-My0061272	M25-My0061273
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
BTEX						
o-Xylene	0.1	mg/kg	-	1.9	1.8	4.2
Xylenes - Total*	0.3	mg/kg	-	3.5	3.0	12
4-Bromofluorobenzene (surr.)	1	%	-	137	108	118

Client Sample ID			SP5	SP6	SP7	SP8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061274	M25-My0061275	M25-My0061276	M25-My0061277
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	24	< 20
TRH C10-C14	20	mg/kg	1800	1800	1300	1400
TRH C15-C28	50	mg/kg	2400	2400	2500	1800
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	4200	4200	3800	3200
TRH C6-C10	20	mg/kg	38	71	110	42
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	37	71	110	41
TRH >C10-C16	50	mg/kg	2400	2400	1900	1800
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	2400	2400	1900	1800
TRH >C16-C34	100	mg/kg	1700	1700	1900	1200
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	4100	4100	3800	3000
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	2.1	6.0	1.7	2.9
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	0.4	< 0.1
m&p-Xylenes	0.2	mg/kg	0.6	< 0.2	2.4	0.7
o-Xylene	0.1	mg/kg	0.9	0.3	1.4	0.7
Xylenes - Total*	0.3	mg/kg	1.6	< 0.3	3.8	1.4
4-Bromofluorobenzene (surr.)	1	%	143	110	122	95

Client Sample ID			SP9	SP10	BH1-2	BH1-4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061278	M25-My0061279	M25-My0061280	M25-My0061281
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	60	38	< 20	< 20
TRH C10-C14	20	mg/kg	3700	2500	< 20	< 20
TRH C15-C28	50	mg/kg	4300	2400	< 50	< 50
TRH C29-C36	50	mg/kg	50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	8050	4900	< 50	< 50
TRH C6-C10	20	mg/kg	180	120	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	170	110	< 20	< 20
TRH >C10-C16	50	mg/kg	4700	3000	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	4700	3000	< 50	< 50
TRH >C16-C34	100	mg/kg	3000	1700	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	7700	4700	< 100	< 100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	4.3	5.3	4.3	12
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	0.3	0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	1.4	0.7	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	5.8	2.4	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	5.3	2.6	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	11	5.1	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	83	92	99	107

Client Sample ID			BH2-2	BH2-3	BH3-3	BH3-4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061282	M25-My0061283	M25-My0061284	M25-My0061285
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	220	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	460	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	680	< 50	< 50	< 50
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	350	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	350	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	330	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	680	< 100	< 100	< 100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	4.7	6.2	4.7	5.7

Client Sample ID			BH2-2	BH2-3	BH3-3	BH3-4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061282	M25-My0061283	M25-My0061284	M25-My0061285
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
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	%	98	100	77	87

Client Sample ID			BH4-2	BH4-3	BH4-4	BH5-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061286	M25-My0061287	M25-My0061288	M25-My0061289
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
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
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
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	4.0	11	13	3.3
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	%	62	101	73	97

Client Sample ID			BH5-3	BH5-4	BH6-1	BH6-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061290	M25-My0061291	M25-My0061292	M25-My0061293
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
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
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
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	10	11	3.0	6.4
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	%	114	88	80	85

Client Sample ID			BH7-1	BH7-2	BH8-1	BH8-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061294	M25-My0061295	M25-My0061296	M25-My0061297
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
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	140	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	200	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	340	< 50
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	190	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	< 50	< 50	190	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	150	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	340	< 100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	4.9	5.0	7.2	5.8

Client Sample ID			BH7-1	BH7-2	BH8-1	BH8-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061294	M25-My0061295	M25-My0061296	M25-My0061297
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
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	98	119	63

Client Sample ID			BH9-1	BH10-1	BH11-1	BH11-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061298	M25-My0061299	M25-My0061300	M25-My0061301
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	130	110	72
TRH C15-C28	50	mg/kg	< 50	160	220	160
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	290	330	232
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	180	180	120
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	180	180	120
TRH >C16-C34	100	mg/kg	< 100	< 100	140	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	180	320	230
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	5.8	1.7	5.5	4.3
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	100	133	90

Client Sample ID			BH12-1	BH13-1	BH14-1	BH14-2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061302	M25-My0061303	M25-My0061304	M25-My0061305
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
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
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
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	3.6	4.2	3.5	3.5
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	%	89	85	97	112

Client Sample ID			BH15-1	BH15-2	QC1	QC3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061306	M25-My0061307	M25-My0061308	M25-My0061309
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
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	400	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	770	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	1170	< 50
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	640	< 50
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	50	mg/kg	< 50	< 50	640	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	530	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	1170	< 100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Sample Properties						
% Moisture	1	%	2.4	2.4	5.0	3.7

Client Sample ID			BH15-1	BH15-2	QC1	QC3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M25-My0061306	M25-My0061307	M25-My0061308	M25-My0061309
Date Sampled			May 15, 2025	May 15, 2025	May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit				
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	103	104	109

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
NSW DECC - Waste Classification Table 1			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 22, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 22, 2025	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	May 22, 2025	14 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	May 22, 2025	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 22, 2025	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	May 22, 2025	14 Days
Organophosphorus Pesticides - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS (USEPA 8270)	Melbourne	May 22, 2025	14 Days
Phthalate Esters - Method: USEPA SW846 8270 in accordance with in-house method LTM-GEN-7030	Melbourne	May 22, 2025	14 Days
Acid Herbicides - Method: LTM-ORG-2180 Phenoxy Acid Herbicides	Melbourne	May 22, 2025	14 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 22, 2025	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	May 22, 2025	14 Days
Semivolatile Organics - Method: USEPA SW 846 8270	Melbourne	May 22, 2025	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	May 22, 2025	28 Days
Cyanide (free) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 22, 2025	14 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	May 22, 2025	14 Days
Fluoride - Method: LTM-INO-4150 Determination of Total Fluoride PART A – CIC	Melbourne	May 23, 2025	28 Days
DECC Metals : Metals M9DECC - Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)	Melbourne	May 22, 2025	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	May 21, 2025	14 Days
Eurofins Suite B1			
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Melbourne	May 22, 2025	14 Days

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting Address: 84 North Terrace Kent Town SA 5067 Project Name: Environmental Assessment Project ID: EC0360 Facility Code:	Order No.: Report #: 1222572 Phone: 0414 496 402 Fax:	Received: May 21, 2025 2:33 PM Due: May 23, 2025 Priority: 2 Day Contact Name: Nick Waniarcha
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Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
External Laboratory												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	SP1	May 15, 2025		Soil	M25-My0061270				X	X		X
2	SP2	May 15, 2025		Soil	M25-My0061271				X		X	
3	SP3	May 15, 2025		Soil	M25-My0061272				X		X	
4	SP4	May 15, 2025		Soil	M25-My0061273				X		X	
5	SP5	May 15, 2025		Soil	M25-My0061274				X		X	
6	SP6	May 15, 2025		Soil	M25-My0061275				X		X	
7	SP7	May 15, 2025		Soil	M25-My0061276				X		X	
8	SP8	May 15, 2025		Soil	M25-My0061277				X		X	
9	SP9	May 15, 2025		Soil	M25-My0061278				X		X	
10	SP10	May 15, 2025		Soil	M25-My0061279				X		X	
11	BH1-2	May 15, 2025		Soil	M25-My0061280				X		X	
12	BH1-4	May 15, 2025		Soil	M25-My0061281				X		X	

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
13	BH2-2	May 15, 2025		Soil	M25-My0061282				X		X	
14	BH2-3	May 15, 2025		Soil	M25-My0061283				X		X	
15	BH3-3	May 15, 2025		Soil	M25-My0061284				X		X	
16	BH3-4	May 15, 2025		Soil	M25-My0061285				X		X	
17	BH4-2	May 15, 2025		Soil	M25-My0061286				X		X	
18	BH4-3	May 15, 2025		Soil	M25-My0061287				X		X	
19	BH4-4	May 15, 2025		Soil	M25-My0061288				X		X	
20	BH5-2	May 15, 2025		Soil	M25-My0061289				X		X	
21	BH5-3	May 15, 2025		Soil	M25-My0061290				X		X	
22	BH5-4	May 15, 2025		Soil	M25-My0061291				X		X	
23	BH6-1	May 15, 2025		Soil	M25-My0061292				X		X	
24	BH6-2	May 15, 2025		Soil	M25-My0061293				X		X	
25	BH7-1	May 15, 2025		Soil	M25-My0061294				X		X	
26	BH7-2	May 15, 2025		Soil	M25-My0061295				X		X	
27	BH8-1	May 15, 2025		Soil	M25-My0061296				X		X	

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting	Order No.:	Received: May 21, 2025 2:33 PM
Address: 84 North Terrace Kent Town SA 5067	Report #: 1222572	Due: May 23, 2025
	Phone: 0414 496 402	Priority: 2 Day
	Fax:	Contact Name: Nick Waniarcha
Project Name: Environmental Assessment		
Project ID: EC0360		
Facility Code:		

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
28	BH8-2	May 15, 2025		Soil	M25-My0061297				X		X	
29	BH9-1	May 15, 2025		Soil	M25-My0061298				X		X	
30	BH10-1	May 15, 2025		Soil	M25-My0061299				X		X	
31	BH11-1	May 15, 2025		Soil	M25-My0061300				X		X	
32	BH11-2	May 15, 2025		Soil	M25-My0061301				X		X	
33	BH12-1	May 15, 2025		Soil	M25-My0061302				X		X	
34	BH13-1	May 15, 2025		Soil	M25-My0061303				X		X	
35	BH14-1	May 15, 2025		Soil	M25-My0061304				X		X	
36	BH14-2	May 15, 2025		Soil	M25-My0061305				X		X	
37	BH15-1	May 15, 2025		Soil	M25-My0061306				X		X	
38	BH15-2	May 15, 2025		Soil	M25-My0061307				X		X	
39	QC1	May 15, 2025		Soil	M25-My0061308				X		X	
40	QC3	May 15, 2025		Soil	M25-My0061309				X		X	
41	RB1	May 15, 2025		Water	M25-My0061310		X					
42	TB1	May 15, 2025		Water	M25-My0061311			X				

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
43	BH1-1	May 15, 2025		Soil	M25-My0061312	X						
44	BH1-3	May 15, 2025		Soil	M25-My0061313	X						
45	BH2-1	May 15, 2025		Soil	M25-My0061314	X						
46	BH2-4	May 15, 2025		Soil	M25-My0061315	X						
47	BH3-1	May 15, 2025		Soil	M25-My0061316	X						
48	BH3-2	May 15, 2025		Soil	M25-My0061317	X						
49	BH4-1	May 15, 2025		Soil	M25-My0061318	X						
50	BH5-1	May 15, 2025		Soil	M25-My0061319	X						
51	QSP1	May 15, 2025		Soil	M25-My0061320	X						
Test Counts						9	1	1	40	1	39	1

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ppm: parts per million

µg/L: micrograms per litre

ppb: parts per billion

%: Percentage

org/100 mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

CFU: Colony Forming Unit

Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- Where a result is reported as 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.
- 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 are not data from your samples.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 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							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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&i)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	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Phthalate Esters							
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Acid Herbicides							
2,4-D	mg/kg	< 0.5			0.5	Pass	
2,4-DB	mg/kg	< 0.5			0.5	Pass	
2,4,5-T	mg/kg	< 0.5			0.5	Pass	
2,4,5-TP	mg/kg	< 0.5			0.5	Pass	
Actril (loxynil)	mg/kg	< 0.5			0.5	Pass	
Dicamba	mg/kg	< 0.5			0.5	Pass	
Dichlorprop	mg/kg	< 0.5			0.5	Pass	
Dinitro-o-cresol	mg/kg	< 0.5			0.5	Pass	
Dinoseb	mg/kg	< 0.5			0.5	Pass	
MCPA	mg/kg	< 0.5			0.5	Pass	
MCPB	mg/kg	< 0.5			0.5	Pass	
Mecoprop	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Semivolatile Organics							
2,4-Dinitrotoluene	mg/kg	< 0.2			0.2	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Volatile Organics							
Benzene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	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							
Total Recoverable Hydrocarbons							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Volatile Organics							
Benzene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	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							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	94			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	83			70-130	Pass	
1.2-Dichlorobenzene	%	98			70-130	Pass	
1.2-Dichloroethane	%	90			70-130	Pass	
Benzene	%	84			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	85			70-130	Pass	
Toluene	%	82			70-130	Pass	
Trichloroethene	%	111			70-130	Pass	
Xylenes - Total*	%	86			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	72			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	79			70-130	Pass	
Acenaphthylene	%	86			70-130	Pass	
Anthracene	%	89			70-130	Pass	
Benz(a)anthracene	%	74			70-130	Pass	
Benzo(a)pyrene	%	74			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	%	76			70-130	Pass	
Benzo(g,h,i)perylene	%	86			70-130	Pass	
Benzo(k)fluoranthene	%	82			70-130	Pass	
Chrysene	%	72			70-130	Pass	
Dibenz(a,h)anthracene	%	88			70-130	Pass	
Fluoranthene	%	93			70-130	Pass	
Fluorene	%	94			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	83			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	104			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	81			70-130	Pass	
4,4'-DDD	%	81			70-130	Pass	
4,4'-DDE	%	90			70-130	Pass	
4,4'-DDT	%	83			70-130	Pass	
a-HCH	%	78			70-130	Pass	
Aldrin	%	86			70-130	Pass	
b-HCH	%	70			70-130	Pass	
d-HCH	%	80			70-130	Pass	
Dieldrin	%	96			70-130	Pass	
Endosulfan I	%	83			70-130	Pass	
Endosulfan II	%	73			70-130	Pass	
Endosulfan sulphate	%	73			70-130	Pass	
Endrin	%	118			70-130	Pass	
Endrin aldehyde	%	72			70-130	Pass	
Endrin ketone	%	84			70-130	Pass	
g-HCH (Lindane)	%	90			70-130	Pass	
Heptachlor	%	89			70-130	Pass	
Heptachlor epoxide	%	72			70-130	Pass	
Hexachlorobenzene	%	88			70-130	Pass	
Methoxychlor	%	84			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	101			70-130	Pass	
Dimethoate	%	75			70-130	Pass	
Ethion	%	103			70-130	Pass	
Fenitrothion	%	97			70-130	Pass	
Methyl parathion	%	89			70-130	Pass	
Mevinphos	%	114			70-130	Pass	
LCS - % Recovery							
Acid Herbicides							
2,4-D	%	104			70-130	Pass	
2,4-DB	%	90			70-130	Pass	
2,4,5-T	%	93			70-130	Pass	
2,4,5-TP	%	94			70-130	Pass	
Dicamba	%	103			70-130	Pass	
Dichlorprop	%	112			70-130	Pass	
Dinitro-o-cresol	%	86			70-130	Pass	
Dinoseb	%	88			70-130	Pass	
MCPA	%	102			70-130	Pass	
MCPB	%	92			70-130	Pass	
Mecoprop	%	97			70-130	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery						
Phenols (Halogenated)						
2-Chlorophenol	%	88		25-140	Pass	
2.4-Dichlorophenol	%	85		25-140	Pass	
2.4.5-Trichlorophenol	%	79		25-140	Pass	
2.4.6-Trichlorophenol	%	79		25-140	Pass	
2.6-Dichlorophenol	%	80		25-140	Pass	
4-Chloro-3-methylphenol	%	82		25-140	Pass	
Pentachlorophenol	%	53		25-140	Pass	
Tetrachlorophenols - Total	%	36		25-140	Pass	
LCS - % Recovery						
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	%	35		25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	34		25-140	Pass	
2-Nitrophenol	%	89		25-140	Pass	
2.4-Dimethylphenol	%	101		25-140	Pass	
2-Methylphenol (o-Cresol)	%	86		25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	47		25-140	Pass	
4-Nitrophenol	%	71		25-140	Pass	
Dinoseb	%	49		25-140	Pass	
Phenol	%	88		25-140	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	96		70-130	Pass	
Cyanide (total)	%	111		70-130	Pass	
Fluoride	%	77		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	99		80-120	Pass	
Beryllium	%	109		80-120	Pass	
Cadmium	%	103		80-120	Pass	
Lead	%	109		80-120	Pass	
Mercury	%	109		80-120	Pass	
Molybdenum	%	119		80-120	Pass	
Nickel	%	117		80-120	Pass	
Selenium	%	115		80-120	Pass	
Silver	%	112		80-120	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C10-C14	%	103		70-130	Pass	
TRH >C10-C16	%	102		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	117		70-130	Pass	
TRH C6-C10	%	121		70-130	Pass	
LCS - % Recovery						
Volatile Organics						
Benzene	%	97		70-130	Pass	
Ethylbenzene	%	125		70-130	Pass	
m&p-Xylenes	%	124		70-130	Pass	
Toluene	%	120		70-130	Pass	
Xylenes - Total*	%	124		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene	%	101		70-130	Pass	

Test			Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery								
Total Recoverable Hydrocarbons								
TRH C10-C14			%	75		70-130	Pass	
TRH >C10-C16			%	74		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M25-My0061092	NCP	%	95		70-130	Pass	
TRH C6-C10	M25-My0061092	NCP	%	95		70-130	Pass	
Spike - % Recovery								
Volatile Organics				Result 1				
1.1-Dichloroethene	M25-My0061092	NCP	%	78		70-130	Pass	
1.2-Dichlorobenzene	M25-My0061092	NCP	%	102		70-130	Pass	
1.2-Dichloroethane	M25-My0061092	NCP	%	92		70-130	Pass	
Benzene	M25-My0061092	NCP	%	88		70-130	Pass	
Ethylbenzene	M25-My0061092	NCP	%	92		70-130	Pass	
m&p-Xylenes	M25-My0061092	NCP	%	87		70-130	Pass	
o-Xylene	M25-My0061092	NCP	%	91		70-130	Pass	
Toluene	M25-My0061092	NCP	%	85		70-130	Pass	
Trichloroethene	M25-My0061092	NCP	%	114		70-130	Pass	
Xylenes - Total*	M25-My0061092	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	M25-My0061092	NCP	%	73		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M25-My0057712	NCP	%	79		70-130	Pass	
Acenaphthylene	M25-My0057712	NCP	%	87		70-130	Pass	
Anthracene	M25-My0057712	NCP	%	82		70-130	Pass	
Benz(a)anthracene	M25-My0057712	NCP	%	79		70-130	Pass	
Benzo(a)pyrene	M25-My0057712	NCP	%	73		70-130	Pass	
Benzo(b&j)fluoranthene	M25-My0057712	NCP	%	74		70-130	Pass	
Benzo(g,h,i)perylene	M25-My0057712	NCP	%	84		70-130	Pass	
Benzo(k)fluoranthene	M25-My0057712	NCP	%	75		70-130	Pass	
Chrysene	M25-My0057712	NCP	%	86		70-130	Pass	
Dibenz(a,h)anthracene	M25-My0057712	NCP	%	83		70-130	Pass	
Fluoranthene	M25-My0057712	NCP	%	79		70-130	Pass	
Fluorene	M25-My0057712	NCP	%	72		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M25-My0057712	NCP	%	83		70-130	Pass	
Naphthalene	M25-My0057712	NCP	%	80		70-130	Pass	
Phenanthrene	M25-My0057712	NCP	%	71		70-130	Pass	
Pyrene	M25-My0057712	NCP	%	80		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M25-My0055512	NCP	%	100		70-130	Pass	
4,4'-DDD	M25-My0055512	NCP	%	94		70-130	Pass	
4,4'-DDE	M25-My0055512	NCP	%	97		70-130	Pass	
4,4'-DDT	M25-My0055512	NCP	%	104		70-130	Pass	
a-HCH	M25-My0055512	NCP	%	79		70-130	Pass	
Aldrin	M25-My0055512	NCP	%	92		70-130	Pass	
b-HCH	M25-My0055512	NCP	%	80		70-130	Pass	
d-HCH	M25-My0055512	NCP	%	94		70-130	Pass	
Dieldrin	M25-My0055512	NCP	%	120		70-130	Pass	
Endosulfan I	M25-My0055512	NCP	%	97		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	M25-My0055512	NCP	%	99		70-130	Pass	
Endosulfan sulphate	M25-My0055512	NCP	%	104		70-130	Pass	
Endrin	M25-My0055512	NCP	%	127		70-130	Pass	
Endrin aldehyde	M25-My0055512	NCP	%	88		70-130	Pass	
Endrin ketone	M25-My0055512	NCP	%	91		70-130	Pass	
g-HCH (Lindane)	M25-My0055512	NCP	%	89		70-130	Pass	
Heptachlor	M25-My0055512	NCP	%	120		70-130	Pass	
Heptachlor epoxide	M25-My0055512	NCP	%	104		70-130	Pass	
Hexachlorobenzene	M25-My0055512	NCP	%	99		70-130	Pass	
Methoxychlor	M25-My0055512	NCP	%	99		70-130	Pass	
Spike - % Recovery								
Acid Herbicides				Result 1				
2,4-D	M25-My0057810	NCP	%	100		70-130	Pass	
Actril (loxynil)	B25-My0045657	NCP	%	92		70-130	Pass	
Dichlorprop	B25-My0045657	NCP	%	91		70-130	Pass	
MCPA	B25-My0045657	NCP	%	78		70-130	Pass	
MCPB	B25-My0045657	NCP	%	78		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M25-My0057712	NCP	%	63		30-130	Pass	
2,4-Dichlorophenol	M25-My0057712	NCP	%	63		30-130	Pass	
2,4,5-Trichlorophenol	M25-My0057712	NCP	%	60		30-130	Pass	
2,4,6-Trichlorophenol	M25-My0057712	NCP	%	57		30-130	Pass	
2,6-Dichlorophenol	M25-My0057712	NCP	%	60		30-130	Pass	
4-Chloro-3-methylphenol	M25-My0057712	NCP	%	60		30-130	Pass	
Pentachlorophenol	M25-My0057712	NCP	%	43		30-130	Pass	
Tetrachlorophenols - Total	M25-My0057712	NCP	%	39		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M25-My0057712	NCP	%	70		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M25-My0057712	NCP	%	59		30-130	Pass	
2-Nitrophenol	M25-My0057712	NCP	%	63		30-130	Pass	
2,4-Dimethylphenol	M25-My0057712	NCP	%	90		30-130	Pass	
2,4-Dinitrophenol	M25-My0057712	NCP	%	44		30-130	Pass	
2-Methylphenol (o-Cresol)	M25-My0057712	NCP	%	61		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M25-My0057712	NCP	%	33		30-130	Pass	
4-Nitrophenol	M25-My0057712	NCP	%	56		30-130	Pass	
Dinoseb	M25-My0057712	NCP	%	62		30-130	Pass	
Phenol	M25-My0057712	NCP	%	63		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M25-My0066507	NCP	%	107		70-130	Pass	
Fluoride	M25-My0065974	NCP	%	105		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M25-My0061519	NCP	%	93		75-125	Pass	
Beryllium	M25-My0061715	NCP	%	102		75-125	Pass	
Cadmium	M25-My0061519	NCP	%	103		75-125	Pass	
Lead	M25-My0056476	NCP	%	121		75-125	Pass	
Mercury	M25-My0061519	NCP	%	101		75-125	Pass	
Molybdenum	M25-My0061519	NCP	%	118		75-125	Pass	
Nickel	M25-My0061519	NCP	%	114		75-125	Pass	
Selenium	M25-My0061519	NCP	%	104		75-125	Pass	
Silver	M25-My0061519	NCP	%	112		75-125	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	M25-My0061281	CP	%	76			70-130	Pass	
TRH >C10-C16	M25-My0061281	CP	%	74			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	M25-My0061291	CP	%	73			70-130	Pass	
TRH >C10-C16	M25-My0061291	CP	%	71			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	M25-My0061302	CP	%	72			70-130	Pass	
TRH >C10-C16	M25-My0061302	CP	%	76			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M25-My0061270	CP	mg/kg	2300	1900	20	30%	Pass	
TRH C15-C28	M25-My0061270	CP	mg/kg	2300	2000	16	30%	Pass	
TRH C29-C36	M25-My0061270	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M25-My0061270	CP	mg/kg	2800	2300	19	30%	Pass	
TRH >C16-C34	M25-My0061270	CP	mg/kg	1600	1400	16	30%	Pass	
TRH >C34-C40	M25-My0061270	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Chloromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Iodomethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.2-Dichloroethene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	M25-My0058049	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	M25-My0059054	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4.4'-DDD	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDE	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4.4'-DDT	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Hexachlorobenzene	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M25-My0059054	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organophosphorus Pesticides				Result 1	Result 2	RPD		
Azinphos-methyl	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Bolstar	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorfenvinphos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos-methyl	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Coumaphos	M25-My0059054	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Demeton-S	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Demeton-O	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Diazinon	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dichlorvos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dimethoate	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Disulfoton	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
EPN	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethoprop	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethyl parathion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenitrothion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fensulfothion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenthion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Malathion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Merphos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methyl parathion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Mevinphos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Monocrotophos	M25-My0059054	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Naled	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Omethoate	M25-My0059054	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Phorate	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pirimiphos-methyl	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pyrazophos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ronnel	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Terbufos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tetrachlorvinphos	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tokuthion	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Trichloronate	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Duplicate								
Phthalate Esters				Result 1	Result 2	RPD		
Bis(2-ethylhexyl)phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Butyl benzyl phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Di-n-butyl phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Di-n-octyl phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Diethyl phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dimethyl phthalate	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Acid Herbicides				Result 1	Result 2	RPD		
2,4-D	M25-My0062572	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-DB	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-T	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-TP	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Actril (loxynil)	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Acid Herbicides				Result 1	Result 2	RPD		
Dicamba	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorprop	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dinitro-o-cresol	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dinoseb	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
MCPA	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
MCPB	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Mecoprop	B25-My0045656	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M25-My0059054	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M25-My0059054	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M25-My0059054	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M25-My0059054	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M25-My0059054	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M25-My0059054	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M25-My0059054	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	M25-My0059054	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M25-My0059054	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M25-My0059054	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M25-My0059054	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M25-My0059054	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Semivolatile Organics				Result 1	Result 2	RPD		
2,4-Dinitrotoluene	M25-My0059054	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Nitrobenzene	M25-My0059054	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M25-My0057254	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Cyanide (total)	M25-My0061270	CP	mg/kg	< 5	< 5	<1	30%	Pass
Fluoride	M25-My0065973	NCP	mg/kg	450	370	19	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M25-My0061519	NCP	mg/kg	4.8	5.0	3.0	30%	Pass
Beryllium	M25-My0061519	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	M25-My0061519	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Lead	M25-My0061519	NCP	mg/kg	420	430	1.0	30%	Pass
Mercury	M25-My0061519	NCP	mg/kg	0.2	0.2	3.0	30%	Pass
Molybdenum	M25-My0061519	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	M25-My0061519	NCP	mg/kg	14	14	2.0	30%	Pass
Selenium	M25-My0061519	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	M25-My0061519	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	M25-My0061279	CP	%	5.3	4.6	15	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M25-My0061280	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M25-My0061280	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M25-My0061280	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M25-My0061280	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M25-My0061280	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M25-My0061280	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M25-My0061289	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M25-My0061289	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M25-My0061289	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M25-My0061289	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M25-My0061289	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M25-My0061289	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M25-My0061290	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M25-My0061290	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M25-My0061290	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M25-My0061290	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M25-My0061290	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M25-My0061290	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M25-My0061294	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C10-C14	M25-My0061294	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C15-C28	M25-My0061294	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C29-C36	M25-My0061294	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH C6-C10	M25-My0061294	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH >C10-C16	M25-My0061294	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C16-C34	M25-My0061294	CP	mg/kg	< 100	< 100	<1	30%	Pass
TRH >C34-C40	M25-My0061294	CP	mg/kg	< 100	< 100	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Benzene	M25-My0061294	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	M25-My0061294	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	M25-My0061294	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	M25-My0061294	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	M25-My0061294	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	M25-My0061294	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	M25-My0061294	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	M25-My0061294	CP	%	4.9	5.8	16	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	M25-My0061300	CP	%	5.5	5.6	3.0	30%	Pass

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	M25-My0061301	CP	mg/kg	72	91	22	30%	Pass
TRH C15-C28	M25-My0061301	CP	mg/kg	160	200	22	30%	Pass
TRH C29-C36	M25-My0061301	CP	mg/kg	< 50	< 50	<1	30%	Pass
TRH >C10-C16	M25-My0061301	CP	mg/kg	120	150	22	30%	Pass
TRH >C16-C34	M25-My0061301	CP	mg/kg	110	130	22	30%	Pass
TRH >C34-C40	M25-My0061301	CP	mg/kg	< 100	< 100	<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:

Catherine Wilson	Analytical Services Manager
Luke Holt	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Inorganic
Joseph Edouard	Senior Analyst-Volatile
Joseph Edouard	Senior Analyst-Organic
Mary Makarios	Senior Analyst-Sample Properties
Edward Lee	Senior Analyst-Organic
Carroll Lee	Senior Analyst-Organic
Caitlin Breeze	Senior Analyst-Metal
Carroll Lee	Senior Analyst-Volatile



Glenn Jackson
Managing Director

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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Echo Risk Consulting
84 North Terrace
Kent Town
SA 5067



NATA Accredited
Accreditation Number 1261
Site Number 1254

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: **Nick Waniarcha**

Report **1222572-W**
 Project name **Environmental Assessment**
 Project ID **EC0360**
 Received Date **May 21, 2025**

Client Sample ID			RB1	TB1
Sample Matrix			Water	Water
Eurofins Sample No.			M25-My0061310	M25-My0061311
Date Sampled			May 15, 2025	May 15, 2025
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	0.001	mg/L	< 0.001	-
Cadmium	0.0002	mg/L	< 0.0002	-
Chromium	0.001	mg/L	< 0.001	-
Copper	0.001	mg/L	< 0.001	-
Lead	0.001	mg/L	< 0.001	-
Mercury	0.0001	mg/L	< 0.0001	-
Nickel	0.001	mg/L	< 0.001	-
Zinc	0.005	mg/L	< 0.005	-
BTEX				
Benzene	0.001	mg/L	-	< 0.001
Toluene	0.001	mg/L	-	< 0.001
Ethylbenzene	0.001	mg/L	-	< 0.001
m&p-Xylenes	0.002	mg/L	-	< 0.002
o-Xylene	0.001	mg/L	-	< 0.001
Xylenes - Total*	0.003	mg/L	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	94
Volatile Organics				
Naphthalene ^{N02}	0.01	mg/L	-	< 0.01

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
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	May 22, 2025	28 Days
Eurofins Suite B1 BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Melbourne	May 22, 2025	14 Days

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting Address: 84 North Terrace Kent Town SA 5067 Project Name: Environmental Assessment Project ID: EC0360 Facility Code:	Order No.: Report #: 1222572 Phone: 0414 496 402 Fax:	Received: May 21, 2025 2:33 PM Due: May 23, 2025 Priority: 2 Day Contact Name: Nick Waniarcha
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Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
External Laboratory												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	SP1	May 15, 2025		Soil	M25-My0061270				X	X		X
2	SP2	May 15, 2025		Soil	M25-My0061271				X		X	
3	SP3	May 15, 2025		Soil	M25-My0061272				X		X	
4	SP4	May 15, 2025		Soil	M25-My0061273				X		X	
5	SP5	May 15, 2025		Soil	M25-My0061274				X		X	
6	SP6	May 15, 2025		Soil	M25-My0061275				X		X	
7	SP7	May 15, 2025		Soil	M25-My0061276				X		X	
8	SP8	May 15, 2025		Soil	M25-My0061277				X		X	
9	SP9	May 15, 2025		Soil	M25-My0061278				X		X	
10	SP10	May 15, 2025		Soil	M25-My0061279				X		X	
11	BH1-2	May 15, 2025		Soil	M25-My0061280				X		X	
12	BH1-4	May 15, 2025		Soil	M25-My0061281				X		X	

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
13	BH2-2	May 15, 2025		Soil	M25-My0061282				X		X	
14	BH2-3	May 15, 2025		Soil	M25-My0061283				X		X	
15	BH3-3	May 15, 2025		Soil	M25-My0061284				X		X	
16	BH3-4	May 15, 2025		Soil	M25-My0061285				X		X	
17	BH4-2	May 15, 2025		Soil	M25-My0061286				X		X	
18	BH4-3	May 15, 2025		Soil	M25-My0061287				X		X	
19	BH4-4	May 15, 2025		Soil	M25-My0061288				X		X	
20	BH5-2	May 15, 2025		Soil	M25-My0061289				X		X	
21	BH5-3	May 15, 2025		Soil	M25-My0061290				X		X	
22	BH5-4	May 15, 2025		Soil	M25-My0061291				X		X	
23	BH6-1	May 15, 2025		Soil	M25-My0061292				X		X	
24	BH6-2	May 15, 2025		Soil	M25-My0061293				X		X	
25	BH7-1	May 15, 2025		Soil	M25-My0061294				X		X	
26	BH7-2	May 15, 2025		Soil	M25-My0061295				X		X	
27	BH8-1	May 15, 2025		Soil	M25-My0061296				X		X	

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
28	BH8-2	May 15, 2025		Soil	M25-My0061297				X		X	
29	BH9-1	May 15, 2025		Soil	M25-My0061298				X		X	
30	BH10-1	May 15, 2025		Soil	M25-My0061299				X		X	
31	BH11-1	May 15, 2025		Soil	M25-My0061300				X		X	
32	BH11-2	May 15, 2025		Soil	M25-My0061301				X		X	
33	BH12-1	May 15, 2025		Soil	M25-My0061302				X		X	
34	BH13-1	May 15, 2025		Soil	M25-My0061303				X		X	
35	BH14-1	May 15, 2025		Soil	M25-My0061304				X		X	
36	BH14-2	May 15, 2025		Soil	M25-My0061305				X		X	
37	BH15-1	May 15, 2025		Soil	M25-My0061306				X		X	
38	BH15-2	May 15, 2025		Soil	M25-My0061307				X		X	
39	QC1	May 15, 2025		Soil	M25-My0061308				X		X	
40	QC3	May 15, 2025		Soil	M25-My0061309				X		X	
41	RB1	May 15, 2025		Water	M25-My0061310		X					
42	TB1	May 15, 2025		Water	M25-My0061311			X				

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554	Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
43	BH1-1	May 15, 2025		Soil	M25-My0061312	X						
44	BH1-3	May 15, 2025		Soil	M25-My0061313	X						
45	BH2-1	May 15, 2025		Soil	M25-My0061314	X						
46	BH2-4	May 15, 2025		Soil	M25-My0061315	X						
47	BH3-1	May 15, 2025		Soil	M25-My0061316	X						
48	BH3-2	May 15, 2025		Soil	M25-My0061317	X						
49	BH4-1	May 15, 2025		Soil	M25-My0061318	X						
50	BH5-1	May 15, 2025		Soil	M25-My0061319	X						
51	QSP1	May 15, 2025		Soil	M25-My0061320	X						
Test Counts						9	1	1	40	1	39	1

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
- Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
- Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
- For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
- Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
- SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

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

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

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

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

- Where a result is reported as 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.
- 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 are not data from your samples.
- 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.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test		Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic		mg/L	< 0.001		0.001	Pass	
Cadmium		mg/L	< 0.0002		0.0002	Pass	
Chromium		mg/L	< 0.001		0.001	Pass	
Copper		mg/L	< 0.001		0.001	Pass	
Lead		mg/L	< 0.001		0.001	Pass	
Mercury		mg/L	< 0.0001		0.0001	Pass	
Nickel		mg/L	< 0.001		0.001	Pass	
Zinc		mg/L	< 0.005		0.005	Pass	
Method Blank							
BTEX							
Benzene		mg/L	< 0.001		0.001	Pass	
Toluene		mg/L	< 0.001		0.001	Pass	
Ethylbenzene		mg/L	< 0.001		0.001	Pass	
m&p-Xylenes		mg/L	< 0.002		0.002	Pass	
o-Xylene		mg/L	< 0.001		0.001	Pass	
Xylenes - Total*		mg/L	< 0.003		0.003	Pass	
Method Blank							
Volatile Organics							
Naphthalene		mg/L	< 0.01		0.01	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic		%	92		80-120	Pass	
Cadmium		%	89		80-120	Pass	
Chromium		%	102		80-120	Pass	
Copper		%	91		80-120	Pass	
Lead		%	88		80-120	Pass	
Mercury		%	99		80-120	Pass	
Nickel		%	98		80-120	Pass	
Zinc		%	91		80-120	Pass	
LCS - % Recovery							
BTEX							
Benzene		%	101		70-130	Pass	
Toluene		%	98		70-130	Pass	
Ethylbenzene		%	97		70-130	Pass	
m&p-Xylenes		%	97		70-130	Pass	
Xylenes - Total*		%	97		70-130	Pass	
LCS - % Recovery							
Volatile Organics							
Naphthalene		%	82		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery							
Heavy Metals				Result 1			
Arsenic	M25-My0061632	NCP	%	94	75-125	Pass	
Cadmium	M25-My0061632	NCP	%	96	75-125	Pass	
Chromium	M25-My0061632	NCP	%	106	75-125	Pass	
Copper	M25-My0061632	NCP	%	93	75-125	Pass	
Lead	M25-My0061632	NCP	%	91	75-125	Pass	
Mercury	M25-My0061632	NCP	%	89	75-125	Pass	
Nickel	M25-My0061632	NCP	%	101	75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc	M25-My0061632	NCP	%	96			75-125	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M25-My0058523	NCP	%	128			70-130	Pass	
Toluene	M25-My0058523	NCP	%	129			70-130	Pass	
Ethylbenzene	M25-My0058523	NCP	%	126			70-130	Pass	
m&p-Xylenes	M25-My0058523	NCP	%	129			70-130	Pass	
o-Xylene	M25-My0058523	NCP	%	128			70-130	Pass	
Xylenes - Total*	M25-My0058523	NCP	%	129			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
Naphthalene	M25-My0058523	NCP	%	79			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M25-My0061632	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	M25-My0061632	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M25-My0061632	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	M25-My0061632	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	M25-My0061632	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	M25-My0061632	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M25-My0061632	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	M25-My0061632	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M25-My0063189	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	M25-My0063189	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	M25-My0063189	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	M25-My0063189	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	M25-My0063189	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	M25-My0063189	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Naphthalene	M25-My0063189	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	

Comments
Sample Integrity

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

Qualifier Codes/Comments

Code	Description
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.

Authorised by:

Catherine Wilson	Analytical Services Manager
Carroll Lee	Senior Analyst-Volatile
Emily Rosenberg	Senior Analyst-Metal



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402

Sample Receipt Advice

Company name: Echo Risk Consulting
Contact name: Nick Waniarcha
Project name: Environmental Assessment
Project ID: EC0360
Turnaround time: 2 Day
Date/Time received: May 21, 2025 2:33 PM
Eurofins reference: 1222572

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ 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

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Karl Bulow on phone : +61 3 8564 5000 or by email: Karl.Bulow@eurofinsanz.com

Results will be delivered electronically via email to Nick Waniarcha - nick.waniarcha@echorisk.com.au.

Note: A copy of these results will also be delivered to the general Echo Risk Consulting email address.



web: www.eurofins.com.au

email: EnviroSales@eurofinsanz.com

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079
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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
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Auckland 35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402
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Company Name: Echo Risk Consulting Address: 84 North Terrace Kent Town SA 5067 Project Name: Environmental Assessment Project ID: EC0360 Facility Code:	Order No.: Report #: 1222572 Phone: 0414 496 402 Fax:	Received: May 21, 2025 2:33 PM Due: May 23, 2025 Priority: 2 Day Contact Name: Nick Waniarcha
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Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
External Laboratory												
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	SP1	May 15, 2025		Soil	M25-My0061270			X	X			X
2	SP2	May 15, 2025		Soil	M25-My0061271			X		X		
3	SP3	May 15, 2025		Soil	M25-My0061272			X		X		
4	SP4	May 15, 2025		Soil	M25-My0061273			X		X		
5	SP5	May 15, 2025		Soil	M25-My0061274			X		X		
6	SP6	May 15, 2025		Soil	M25-My0061275			X		X		
7	SP7	May 15, 2025		Soil	M25-My0061276			X		X		
8	SP8	May 15, 2025		Soil	M25-My0061277			X		X		
9	SP9	May 15, 2025		Soil	M25-My0061278			X		X		
10	SP10	May 15, 2025		Soil	M25-My0061279			X		X		
11	BH1-2	May 15, 2025		Soil	M25-My0061280			X		X		
12	BH1-4	May 15, 2025		Soil	M25-My0061281			X		X		



web: www.eurofins.com.au

email: EnviroSales@eurofinsanz.com

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: Echo Risk Consulting	Order No.:	Received: May 21, 2025 2:33 PM
Address: 84 North Terrace Kent Town SA 5067	Report #: 1222572	Due: May 23, 2025
	Phone: 0414 496 402	Priority: 2 Day
	Fax:	Contact Name: Nick Waniarcha
Project Name: Environmental Assessment	Eurofins Analytical Services Manager : Karl Bulow	
Project ID: EC0360		
Facility Code:		

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
13	BH2-2	May 15, 2025		Soil	M25-My0061282				X		X	
14	BH2-3	May 15, 2025		Soil	M25-My0061283				X		X	
15	BH3-3	May 15, 2025		Soil	M25-My0061284				X		X	
16	BH3-4	May 15, 2025		Soil	M25-My0061285				X		X	
17	BH4-2	May 15, 2025		Soil	M25-My0061286				X		X	
18	BH4-3	May 15, 2025		Soil	M25-My0061287				X		X	
19	BH4-4	May 15, 2025		Soil	M25-My0061288				X		X	
20	BH5-2	May 15, 2025		Soil	M25-My0061289				X		X	
21	BH5-3	May 15, 2025		Soil	M25-My0061290				X		X	
22	BH5-4	May 15, 2025		Soil	M25-My0061291				X		X	
23	BH6-1	May 15, 2025		Soil	M25-My0061292				X		X	
24	BH6-2	May 15, 2025		Soil	M25-My0061293				X		X	
25	BH7-1	May 15, 2025		Soil	M25-My0061294				X		X	
26	BH7-2	May 15, 2025		Soil	M25-My0061295				X		X	
27	BH8-1	May 15, 2025		Soil	M25-My0061296				X		X	



web: www.eurofins.com.au

email: EnviroSales@eurofinsanz.com

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<p>Company Name: Echo Risk Consulting Address: 84 North Terrace Kent Town SA 5067</p> <p>Project Name: Environmental Assessment Project ID: EC0360 Facility Code:</p>	<p>Order No.: Report #: 1222572 Phone: 0414 496 402 Fax:</p>	<p>Received: May 21, 2025 2:33 PM Due: May 23, 2025 Priority: 2 Day Contact Name: Nick Waniarcha</p>
---	---	---

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
28	BH8-2	May 15, 2025		Soil	M25-My0061297				X		X	
29	BH9-1	May 15, 2025		Soil	M25-My0061298				X		X	
30	BH10-1	May 15, 2025		Soil	M25-My0061299				X		X	
31	BH11-1	May 15, 2025		Soil	M25-My0061300				X		X	
32	BH11-2	May 15, 2025		Soil	M25-My0061301				X		X	
33	BH12-1	May 15, 2025		Soil	M25-My0061302				X		X	
34	BH13-1	May 15, 2025		Soil	M25-My0061303				X		X	
35	BH14-1	May 15, 2025		Soil	M25-My0061304				X		X	
36	BH14-2	May 15, 2025		Soil	M25-My0061305				X		X	
37	BH15-1	May 15, 2025		Soil	M25-My0061306				X		X	
38	BH15-2	May 15, 2025		Soil	M25-My0061307				X		X	
39	QC1	May 15, 2025		Soil	M25-My0061308				X		X	
40	QC3	May 15, 2025		Soil	M25-My0061309				X		X	
41	RB1	May 15, 2025		Water	M25-My0061310		X					
42	TB1	May 15, 2025		Water	M25-My0061311			X				



Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

web: www.eurofins.com.au

email: EnviroSales@eurofinsanz.com

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
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Perth
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35 O'Rorke Road Penrose Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise Mount Wellington Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road Gate Pa Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: Echo Risk Consulting
Address: 84 North Terrace
 Kent Town
 SA 5067

Project Name: Environmental Assessment
Project ID: EC0360
Facility Code:

Order No.:
Report #: 1222572
Phone: 0414 496 402
Fax:

Received: May 21, 2025 2:33 PM
Due: May 23, 2025
Priority: 2 Day
Contact Name: Nick Waniarcha

Eurofins Analytical Services Manager : Karl Bulow

Sample Detail						HOLD*	Metals M8	BTEX and Naphthalene	Moisture Set	NEPM Screen for Soil Classification	Eurofins Suite B1	NSW DECC - Waste Classification Table 1
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780										X		
43	BH1-1	May 15, 2025		Soil	M25-My0061312	X						
44	BH1-3	May 15, 2025		Soil	M25-My0061313	X						
45	BH2-1	May 15, 2025		Soil	M25-My0061314	X						
46	BH2-4	May 15, 2025		Soil	M25-My0061315	X						
47	BH3-1	May 15, 2025		Soil	M25-My0061316	X						
48	BH3-2	May 15, 2025		Soil	M25-My0061317	X						
49	BH4-1	May 15, 2025		Soil	M25-My0061318	X						
50	BH5-1	May 15, 2025		Soil	M25-My0061319	X						
51	QSP1	May 15, 2025		Soil	M25-My0061320	X						
Test Counts						9	1	1	40	1	39	1



CERTIFICATE OF ANALYSIS

Work Order : **EM2508951**

Amendment : **1**

Client : **ECHO RISK CONSULTING**

Contact : Andrew Durand

Address : 944-958 South Road, Edwardstown

Telephone : ----

Project : Environmental Assessment

Order number : EC0360

C-O-C number : ----

Sampler : ----

Site : Eridunda Desert Oaks Resort

Quote number : EN/222

No. of samples received : 3

No. of samples analysed : 2

Page : 1 of 5

Laboratory : Environmental Division Melbourne

Contact : Customer Services EM

Address : 4 Westall Rd Springvale VIC Australia 3171

Telephone : +61-3-8549 9600

Date Samples Received : 23-May-2025 11:30

Date Analysis Commenced : 23-May-2025

Issue Date : 19-Jun-2025 11:34



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	Position	Accreditation Category
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

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

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

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

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

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

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

- Amendment (19/06/2025): This report has been amended following the request to remove reporting of sample QSP2 (003). All analysis results are as per the previous report.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC2	QC4	----	----	----
Sampling date / time				23-May-2025 00:00	23-May-2025 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2508951-001	EM2508951-002	-----	-----	-----	
				Result	Result	----	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	4.8	4.5	----	----	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	----	----	
C10 - C14 Fraction	----	50	mg/kg	60	<50	----	----	----	
C15 - C28 Fraction	----	100	mg/kg	260	<100	----	----	----	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	----	----	----	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	320	<50	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	----	----	----	
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	----	----	----	
>C10 - C16 Fraction	----	50	mg/kg	170	<50	----	----	----	
>C16 - C34 Fraction	----	100	mg/kg	150	<100	----	----	----	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	----	----	----	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	320	<50	----	----	----	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	170	<50	----	----	----	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	----	----	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	----	----	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	----	----	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	----	----	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	----	----	
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	----	----	----	
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	----	----	
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	----	----	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	108	86.4	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QC2	QC4	----	----	----
Sampling date / time				23-May-2025 00:00	23-May-2025 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EM2508951-001	EM2508951-002	-----	-----	-----	
				Result	Result	----	----	----	
EP080S: TPH(V)/BTEX Surrogates - Continued									
Toluene-D8	2037-26-5	0.2	%	112	86.2	----	----	----	
4-Bromofluorobenzene	460-00-4	0.2	%	113	88.6	----	----	----	



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	51	125
Toluene-D8	2037-26-5	55	125
4-Bromofluorobenzene	460-00-4	56	124



QUALITY CONTROL REPORT

Work Order : **EM2508951** **Page** : 1 of 4
Amendment : **1**

Client : **ECHO RISK CONSULTING** **Laboratory** : Environmental Division Melbourne
Contact : Andrew Durand **Contact** : Customer Services EM
Address : 944-958 South Road, Edwardstown **Address** : 4 Westall Rd Springvale VIC Australia 3171
Telephone : ---- **Telephone** : +61-3-8549 9600
Project : Environmental Assessment **Date Samples Received** : 23-May-2025
Order number : EC0360 **Date Analysis Commenced** : 23-May-2025
C-O-C number : ---- **Issue Date** : 19-Jun-2025
Sampler : ----
Site : Eridunda Desert Oaks Resort
Quote number : EN/222
No. of samples received : 3
No. of samples analysed : 2



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

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

This Quality Control Report contains the following information:

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

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Eric Chau	Metals Team Leader	Melbourne Inorganics, Springvale, VIC
Nancy Wang	2IC Organic Chemist	Melbourne Organics, Springvale, VIC



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key :
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
 CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
 LOR = Limit of reporting
 RPD = Relative Percentage Difference
 # = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6599127)									
EM2508951-001	QC2	EA055: Moisture Content	----	0.1	%	4.8	4.5	6.3	0% - 20%
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6599124)									
EM2508951-001	QC2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6599125)									
EM2508951-001	QC2	EP071: C15 - C28 Fraction	----	100	mg/kg	260	280	7.7	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	60	<50	27.1	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6599124)									
EM2508951-001	QC2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6599125)									
EM2508951-001	QC2	EP071: >C16 - C34 Fraction	----	100	mg/kg	150	250	47.5	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	170	110	47.2	No Limit
EP080: BTEXN (QC Lot: 6599124)									
EM2508951-001	QC2	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit



Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6599124)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	36 mg/kg	90.7	58.6	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6599125)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	810 mg/kg	98.8	80.0	120
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	2880 mg/kg	98.2	80.0	120
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	1460 mg/kg	101	80.0	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6599124)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	86.2	59.3	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6599125)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	1120 mg/kg	108	80.0	120
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	3800 mg/kg	95.4	80.0	120
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	260 mg/kg	110	80.0	120
EP080: BTEXN (QCLot: 6599124)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	88.4	61.6	117
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	92.5	65.8	125
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	93.3	65.8	124
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	98.4	64.8	134
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	101	68.7	132
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	94.9	61.8	123

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: SOIL

				Matrix Spike (MS) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%) MS	Acceptable Limits (%) Low High		
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6599124)								
EM2508951-002	QC4	EP080: C6 - C9 Fraction	----	28 mg/kg	86.7	33.4	124	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6599125)								
EM2508951-002	QC4	EP071: C10 - C14 Fraction	----	810 mg/kg	102	70.0	130	
		EP071: C15 - C28 Fraction	----	2880 mg/kg	99.5	70.0	130	



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6599125) - continued							
EM2508951-002	QC4	EP071: C29 - C36 Fraction	----	1460 mg/kg	101	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6599124)							
EM2508951-002	QC4	EP080: C6 - C10 Fraction	C6_C10	33 mg/kg	82.7	30.8	120
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6599125)							
EM2508951-002	QC4	EP071: >C10 - C16 Fraction	----	1120 mg/kg	111	70.0	130
		EP071: >C16 - C34 Fraction	----	3800 mg/kg	96.2	70.0	130
		EP071: >C34 - C40 Fraction	----	260 mg/kg	110	70.0	130
EP080: BTEXN (QCLot: 6599124)							
EM2508951-002	QC4	EP080: Benzene	71-43-2	2 mg/kg	109	54.4	127
		EP080: Toluene	108-88-3	2 mg/kg	108	57.1	131



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EM2508951	Page	: 1 of 4
Amendment	: 1		
Client	: ECHO RISK CONSULTING	Laboratory	: Environmental Division Melbourne
Contact	: Andrew Durand	Telephone	: +61-3-8549 9600
Project	: Environmental Assessment	Date Samples Received	: 23-May-2025
Site	: Erldunda Desert Oaks Resort	Issue Date	: 19-Jun-2025
Sampler	: ----	No. of samples received	: 3
Order number	: EC0360	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO** Method Blank value outliers occur.
- **NO** Duplicate outliers occur.
- **NO** Laboratory Control outliers occur.
- **NO** Matrix Spike outliers occur.
- For all regular sample matrices, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- **NO** Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- **NO** Quality Control Sample Frequency Outliers exist.



Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for VOC in soils vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055) QC2, QC4	23-May-2025	----	----	----	23-May-2025	06-Jun-2025	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080) QC2, QC4	23-May-2025	24-May-2025	06-Jun-2025	✓	26-May-2025	06-Jun-2025	✓
Soil Glass Jar - Unpreserved (EP071) QC2, QC4	23-May-2025	24-May-2025	06-Jun-2025	✓	27-May-2025	03-Jul-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080) QC2, QC4	23-May-2025	24-May-2025	06-Jun-2025	✓	26-May-2025	06-Jun-2025	✓
Soil Glass Jar - Unpreserved (EP071) QC2, QC4	23-May-2025	24-May-2025	06-Jun-2025	✓	27-May-2025	03-Jul-2025	✓
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080) QC2, QC4	23-May-2025	24-May-2025	06-Jun-2025	✓	26-May-2025	06-Jun-2025	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: ✖ = Quality Control frequency not within specification ; ✔ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	2	50.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	2	50.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	10.00	✔	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
TRH - Semivolatile Fraction	EP071	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
TRH - Semivolatile Fraction	EP071	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
TRH - Semivolatile Fraction	EP071	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	50.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

<i>Analytical Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **EM2508951**

Amendment : **1**

Client : **ECHO RISK CONSULTING**

Contact : Andrew Durand

Address : 944-958 South Road, Edwardstown

Laboratory : Environmental Division Melbourne

Contact : Customer Services EM

Address : 4 Westall Rd Springvale VIC Australia
3171

E-mail : andrew.durand@echorisk.com.au

Telephone : ----

Facsimile : ----

E-mail : ALSEnviro.Melbourne@alsglobal.com

Telephone : +61-3-8549 9600

Facsimile : +61-3-8549 9626

Project : Environmental Assessment

Order number : EC0360

C-O-C number : ----

Site : Eridunda Desert Oaks Resort

Sampler :

Page : 1 of 2

Quote number : EM2023ECHRIS0001 (EN/222)

QC Level : NEPM 2013 B3 & ALS QC Standard

Dates

Date Samples Received : 23-May-2025 11:30

Client Requested Due : 27-May-2025

Date

Issue Date : 19-Jun-2025

Scheduled Reporting Date : **27-May-2025**

Delivery Details

Mode of Delivery : Carrier

No. of coolers/boxes : 2

Receipt Detail :

Security Seal : Not Available

Temperature : 7.0°C - Ice Bricks present

No. of samples received / analysed : 3 / 2

General Comments

- This report contains the following information:
 - Sample Container(s)/Preservation Non-Compliances
 - Summary of Sample(s) and Requested Analysis
 - Proactive Holding Time Report
 - Requested Deliverables
- **Please direct any queries related to sample condition / numbering / breakages to Client Services.**
- Sample Disposal - Aqueous (3 weeks), Solid (2 months) from receipt of samples.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Melbourne, NATA accreditation no. 825, site no. 13778.
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.



Sample Container(s)/Preservation Non-Compliances

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

- No sample container / preservation non-compliance exists.

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.

If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: SOIL

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - S-04 TRH/BTEXN
EM2508951-001	23-May-2025 00:00	QC2	✓	✓
EM2508951-002	23-May-2025 00:00	QC4	✓	✓

Proactive Holding Time Report

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

Requested Deliverables

Andrew Durand

- *AU Certificate of Analysis - NATA (COA) Email andrew.durand@echorisk.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email andrew.durand@echorisk.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email andrew.durand@echorisk.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email andrew.durand@echorisk.com.au
- A4 - AU Tax Invoice (INV) Email andrew.durand@echorisk.com.au
- Chain of Custody (CoC) (COC) Email andrew.durand@echorisk.com.au
- EDI Format - XTab (XTAB) Email andrew.durand@echorisk.com.au

Nick Waniarcha

- *AU Certificate of Analysis - NATA (COA) Email nick.waniarcha@echorisk.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email nick.waniarcha@echorisk.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email nick.waniarcha@echorisk.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email nick.waniarcha@echorisk.com.au
- A4 - AU Tax Invoice (INV) Email nick.waniarcha@echorisk.com.au
- Chain of Custody (CoC) (COC) Email nick.waniarcha@echorisk.com.au
- EDI Format - XTab (XTAB) Email nick.waniarcha@echorisk.com.au

APPENDIX C STATEMENT OF LIMITATIONS

STATEMENT OF LIMITATIONS - ECHO RISK CONSULTING PTY LTD

This report has been prepared in accordance with the agreement between The Client and Echo Risk Consulting Pty Ltd (Echo).

Within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by members of its profession and consulting practice. Opinions and judgements expressed herein are based on Echo's understanding of current regulatory standards and should not be construed as legal opinions. No other warranty, expressed or implied, is made.

This report is solely for the use of The Client and any reliance on this report by third parties shall be at such party's sole risk. This report shall only be presented in full and may not be used to support any other objective than those set out in the report, except where written approval with comments is provided by Echo.

The first stage in the site assessment process generally involves site history research and/or a site inspection. This stage is intended to establish whether there is a likelihood of site contamination. Dependent on the location of the site and site conditions, there could be contamination present which could not have been identified by a preliminary investigation of this nature. The investigations rely on information provided to Echo by third parties. Echo cannot guarantee completeness or accuracy of any descriptions or conclusions based on information supplied to it during site surveys, visits and interviews. The extent of risk The Client wishes to accept is something which The Client must determine and accordingly, the Client waives any claim against Echo and agrees to defend, indemnify and hold Echo harmless from any claim or liability for injury or loss allegedly arising from errors, omissions or inaccuracies in documents or other information provided to Echo by The Client.

If recommendations have been made on whether to conduct intrusive investigations, these have been based on the likelihood of site contamination and are generally based on the sensitivity of the proposed future use of the site. The site assessment process is often ongoing, with additional stages of investigation being required to resolve issues raised in previous stages. In cases where intrusive investigations (or other sampling) have been conducted, then the following limitations apply:

- Professional judgment has been used to interpret the data obtained from site sampling and subsequent laboratory testing to characterise contamination that is present on site. The Client accepts that even a comprehensive sampling and testing program, implemented with the appropriate equipment and experienced personnel under the direction of a trained professional who functions in accordance with a professional standard of care, may fail to detect certain conditions because they are hidden and therefore cannot be considered in development of a subsurface exploration program.
- Where relevant, the extent of sampling and analysis has been targeted towards areas where contamination is most likely, based on site history and visual assessment. The potential for contamination that occurs in unexpected locations or from unexplained sources cannot be ruled out. Soil contamination can be expected to be non-homogenous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where the contamination has occurred. Contaminant movement can follow paths of high permeability and it is possible that sampling will not have intersected these preferential pathways. The scope of services included with the Proposal is that which The Client agreed to or selected considering their own risk preferences and other considerations.
- Intrusive investigations may result in contamination of certain sub-surface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer or other water body not previously contaminated. Echo has applied its best efforts to minimise and eliminate such cross contamination during the conduct of any sub-surface investigation. Because sub-surface sampling is a necessary aspect of the work which Echo may perform on The Client's behalf, The client waives any claims against Echo and agrees to defend, indemnify and hold Echo harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

Preliminary findings which may result from this investigation/study may require verification through further analytical testing programs. The final decision to conduct additional investigative activities will be dependent upon The Client's assessment of the business risks involved. The Client agrees to hold Echo harmless from any claim, losses or damages arising out of The Client's rejection of any additional work suggested as a result of the work performed hereunder.

This report is based on conditions encountered and information reviewed at the time of preparation. Echo disclaims responsibility for any changes that may have occurred after this time.