



Preliminary Site Investigation







Redmond Pl, Orange NSW

Landcom

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Executive Summary

Landcom engaged GHD Pty Ltd (GHD) to assist in an assessment regarding environmental and geotechnical matters through to lodgement of a Planning Proposal for parcels of land located at 154 Lone Pine Avenue, 3 Redmond Place, and 5255 Mitchell Highway, Orange NSW (the site). The site is legally described as Lot 1 Deposited Plan (DP) 153167, Lot 6 DP1031236, and Lot 200 DP1288388.

Objectives

The overarching objective of this preliminary site investigation (PSI) is to assist Landcom identify potential contamination issues that may be present based on the current and historical use of the site. More specifically, the objectives to be achieved by this investigation are:

- Review the current and historical site uses and assess the likelihood for contamination to exist from past or present activities for the purpose of the proposed rezoning of the site from rural to residential.
- Identify contamination and/or potential contamination that may require remediation.
- Provide recommendations for further investigation and/or contamination management in relation to the proposed development (if applicable), including identifying possible remediation methods to make the land suitable for the intended purpose.
- Comment on the suitability of the land for the proposed zoning and identify risks and constraints in relation to the proposed zoning.

Outcomes

GHD conducted a preliminary site investigation that included a desktop review and site inspection to assess current and historical land use, collection of soil samples from within the site boundary (Lot 1, Lot 6, and Lot 200), and analysed for the COPC (refer Section 1.3). The following key findings were made in relation to the project objectives:

- Nickel concentration that exceeded the ecological assessment criterion was localised to one location within Lot 6 (adjacent to the concrete AST bund and hangar building).
- Total recoverable hydrocarbons (TRHs) within two locations (TP03 and TP08) were below the adopted human-health and ecological assessment criteria within Lot 1.
- Low levels of organochloride pesticides (OCP) (between 0.09 to 1.11 mg/kg) within several locations in shallow soils (0 – 0.5 m bgl) within Lot 1 (TP01, TP02, TP04, TP08, and TP09) and one location within Lot 6 (TP13) below the adopted human-health and ecological assessment criteria.
- PFOS (0.0003 mg/kg) concentrations in surface sample PFAS_S1 taken from the drainage line located within Lot 6 was below the adopted human-health and ecological assessment criteria.
- Various metals (arsenic, chromium (III+VI), copper, lead, nickel, and zinc) were reported within an order of magnitude below the adopted assessment criteria in the majority of soil samples.
- Potential asbestos containing material observed during previous investigation, was observed during the current investigation in Lot 1, with GHD field staff experienced and licenced for the identification of asbestos, collecting a cement pipe fragment visually assessed as asbestos containing material.
- Asbestos was not identified in soils sampled and analysed for the presence of asbestos.

The data collected during this investigation suggests that the overall potential for contamination impacts in soil to represent a material constraint to redevelopment for low density residential use is low. An identified constraint in relation to the proposed rezoning of the site from rural to residential is the potential for exposure to asbestos contamination during future construction and development works. It is recommended that asbestos should be managed with further investigation (quantitative analysis) of soils containing potential asbestos containing fragments based on information detailed within this report, that includes removal of waste stockpiles and associated material, hand picking of surface material followed by validation and clearance from a licenced asbestos assessor. Appropriate occupational health and safety (OH&S) protocols during construction should also be adopted, including management of any unexpected finds.

Further, the area around the helipad, and associated hangar building, was assessed for PFAS in soil at investigation locations TP11, TP12, and PFAS_S1. Measured PFAS concentrations were below adopted assessment criteria for low density residential and ecological (direct/indirect) exposure. This should not preclude the hangar area from being rezoned to R1 'General Residential' and/or RE1 'Public Recreation' given there was no evidence to suggest that PFAS within this area is present at concentrations of concern for the protection of human and ecological health; however, investigation within the hangar itself was not part of the scope of work. Should there be any future changes to the existing infrastructure (i.e., hangar building, helipad, and hardstand area) within Lot 6 further site investigation is warranted.

This report is subject to, and must be read in conjunction with, the limitations set out in section 1 and the assumptions and qualifications contained throughout the Report.

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1. Introduction

Landcom engaged GHD Pty Ltd (GHD) to assist in an assessment regarding environmental and geotechnical matters through to lodgement of a Planning Proposal for parcels of land located at 154 Lone Pine Avenue, 3 Redmond Place, and 5255 Mitchell Highway, Orange NSW (the site). The site is legally described as Lot 1 Deposited Plan (DP) 153167, Lot 6 DP1031236, and Lot 200 DP1288388.

A site location is provided in Figure 1, Appendix A.

1.1 Background

GHD understands that Landcom and Orange City Council have signed a Project Delivery Agreement for the purposes of delivering the Redmond Place project. The site is owned by Orange City Council and Landcom are taking the lead in preparing a planning proposal to amend the Orange Local Environmental Plan 2011 (LEP) to rezone the site for residential use in accordance with a prepared master plan.

The key objectives of the master plan are to:

- Supply – increase the supply of land to facilitate housing.
- Diversity – promote housing diversity.
- Affordability – increase the supply of land for affordable housing by delivering at least 20% of all residential dwellings for affordable housing¹.
- Sustainability – develop a climate resilient, healthy, and inclusive place, at the forefront of environmental and social sustainability.

The staging strategy for this site is to be determined and will need to take into consideration infrastructure availability, delivery timing, placemaking, and entry point to the area from Mitchell Highway.

The urban design approach for the project focuses on socio-economic activation, innovative sustainability solutions and urban vibrancy through place-making. The master plan for the future new community of Redmond Place will be based on a landscape-led approach to urban design, informed by the unique qualities of the site and Connecting with Country principles. A thorough community and stakeholder engagement process, including community workshops, a Walk on Country, and indigenous stakeholder interviews, will also inform the urban design process.

GHD understands that Landcom previously engaged Envirowest Consulting (Envirowest Consulting, 2023) to undertake a preliminary site investigation (PSI). The PSI recommended a detailed investigation of the site to characterise areas of potential contamination and suitability for residential land-use.

In February 2024, Landcom and GHD attended an inception meeting, that identified changes to the investigation areas from within the site boundary of 3 Redmond Place, Orange and 5255 Mitchell Highway, Orange. The changes to the investigation areas are further discussed in Section 6.3.1.

This report details the site investigation undertaken by GHD in February and March 2024.

1.2 Objectives

The overarching objective of this preliminary site investigation (PSI) is to assist Landcom identify potential contamination issues that may be present based on the current and historical use of the site. More specifically, the objectives to be achieved by this investigation are:

- Review the current and historical site uses and assess the likelihood for contamination to exist from past or present activities for the purpose of the proposed rezoning of the site from rural to residential.
- Identify contamination and/or potential contamination that may require remediation.

¹ Affordable housing is housing for very low to moderate income households.

- Provide recommendations for further investigation and/or contamination management in relation to the proposed development (if applicable), including identifying possible remediation methods to make the land suitable for the intended purpose.
- Comment on the suitability of the land for the proposed zoning and identify risks and constraints in relation to the proposed zoning.

1.3 Scope of work

The scope of works completed as part of this investigation include the following:

- Preparation of site-specific health, safety and environment documentation for the site walkover and intrusive investigation works including a Job Safety and Environment Assessment (JSEA).
- A review of publicly available information (i.e., historical aerial imagery and registered groundwater bores)
- A desktop assessment of historical reports and anecdotal evidence relevant to the site, collect information about the site’s past and current environmental conditions.
- A field-based site walkover of the site to assess potential sources of contamination, surrounding land use, topography, drainage, nearby sensitive environments and to determine potential areas of environmental concern (AEC) and contaminants of potential concern (COPC).
- Furthermore, identify potential access constraints to the proposed investigation locations, and ground truthing the previous site investigation (Envirowest Consulting, 2023) that identified potential sources of contamination.
- Collection of soil samples during excavation of twenty-eight test pits (to a maximum depth of 3.0 m bgl), 3 surface soils samples, and logging of lithology encountered during excavation.
- Laboratory analysis of fifty-eight soil samples for TRH, BTEXN, PAH, and heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc), fifty samples for asbestos identification in soils, twenty-seven for organochlorine pesticides (OCP) and organophosphate pesticides (OPP), six for volatile organic compounds (VOC), phenols and polychlorinated biphenyls (PCB), three for per- and poly fluoroalkyl substances (PFAS), and two for pH, iron, clay content and cation exchange capacity
- Comparison and analysis of the analytical results to ecological and human health screening criteria.

It is noted that two test pit locations (TP29 and TP30), in the southeastern portion of Lot 200, and of the proposed thirty locations (GHD, 2024) were inaccessible during works due to health and safety concerns regarding environmental conditions. This is discussed further in Section 6.3.1.

1.4 Framework

The framework for this investigation was developed in a manner consistent with guidelines “made or approved”, by the NSW EPA under Section 105 of the *Contaminated Land Management Act, 1997*. The guidelines used include, but are not limited to the following:

- HEPA (2020) PFAS National Environmental Management Plan (Version 2.0), Heads of Environment Protection Authorities Australia and New Zealand, January 2020 (PFAS NEMP).
- National Environmental Protection Council (NEPC, 2013) National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (the ‘ASC NEPM’).
- NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Land.
- NSW EPA (2022) Sampling Design Guidelines.

1.5 Limitations

This report: has been prepared by GHD for Landcom and may only be used and relied on by Landcom for the purpose agreed between GHD and Landcom as set out in section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Landcom arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared. The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this Report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has considered and/or tested for only those chemicals specifically referred to in this Report and makes no statement or representation as to the existence (or otherwise) of any other chemicals.

Site conditions (including any the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD expressly disclaims responsibility:

- Arising from, or in connection with, any change to the site conditions; and
- To update this Report if the site conditions change.

Except as otherwise expressly stated in this Report, GHD makes no warranty or representation as to the presence or otherwise of asbestos and/or asbestos containing materials (“ACM”) on the site. If fill material has been imported on to the site at any time, or if any buildings have been demolished on the site or material from such buildings disposed of on the site (particularly if the buildings were constructed prior to 1990), the site may contain asbestos or ACM.

Subsurface conditions can vary across a particular site and cannot be exhaustively defined by the investigations carried out prior to this Report. As a result, it is unlikely that the results and estimations expressed or used to compile this Report will represent conditions at any location other than the specific points of sampling. A site that appears to be unaffected by contamination at the time of the Report may later, due to natural causes or human intervention, become contaminated.

Except as otherwise expressly stated in this Report, GHD makes no warranty, statement or representation of any kind concerning the suitability of the site for any purpose or the permissibility of any use, development, or re-development of the site.

These Disclaimers should be read in conjunction with the entire Report and no excerpts are taken to be representative of the findings of this Report.

2. Site setting

2.1 Site identification

The site is located on the southeast fringe of Orange, the largest city in the Central West Region. It is adjacent to the suburb of Glenroi and located 4.4 km from Orange City Centre and approximately 3.2 km from Orange train station.

The site has a significant frontage along Mitchell Highway (A32) which runs from east to west from the M4 Motorway in Greater Sydney connecting through Penrith, Katoomba, Bathurst to Orange.

The site lies on the southern side of Redmond Place, bounded by Bathurst Road / Mitchell Highway (on the northeast), Lone Pine Avenue (on the west) and Dairy Creek Road to the south. It is surrounded by a mixture of land uses with low density residential to the west, retail and large format retail to the north, rural farmland to the south and east, as well as a kart racing track 250 m north of the Mitchell highway.

The site is approximately 24.23 ha in size and is currently vacant, except for a structure that previously housed an emergency services helicopter hangar.

The site comprises three lots, summarised below in Table 2.1.

Table 2.1 Site identification summary

Address	Legal description	Current land zoning	Approximate Area
154 Lone Pine Avenue, Orange NSW	Lot 1 DP 153167 (Lot 1)	E3 – Productivity Support	4.10 hectares (ha)
3 Redmond Place, Orange NSW	Lot 6 DP 1031236 (Lot 6)	E3 – Productivity Support	2.28 ha
5255 Mitchell Highway, Orange NSW	Lot 200 DP 1288388 (Lot 200)	E3 – Productivity Support C3 – Environmental Management	17.85 ha
Total Approximate Area			24.23 ha

GHD understands that the land is owned by Orange City Council, who will remain owners throughout the course of the project.

2.2 Environmental setting

Table 2.2 provides a summary of information related to the environmental setting of the site.

Table 2.2 Summary of environmental setting

Item	Description
Topography	A review of the Orange 8731-3N 1:25,000 topographical map indicated that the site is situated between 895 m to 900 m Australian Height Datum (AHD), sloping gently towards the southeast.
Geology	The Orange Geological Map 1:100,000 (Geological Survey of New South Wales, 1997) indicates that the general geology at the site is underlain by pyroxene olivine basalt, plagioclase basalt, alkali basalt, trachybasalt and trachyandesite.
Soil landscape	The site is within the North Orange Soil Landscape (eSPADE Interactive Database, 2024). Soils in the North Orange Soil Landscape include Red Earths on upper slopes and shallow Lithosols on crests and side slopes. Yellow Earths occur on lower slopes with brown solodic and yellow solodic Soils in drainage depressions. Soils on the site are expected to be dominated by Yellow Earths which comprise dark to dull brown fine sandy loam with a clear change to bright yellowish-brown loam fine sandy loam to clay loam.

Item	Description
	The current intrusive investigation identified on-site soils consisting of clayey silt, silty clay, and clay, outlined in Section 7.2.1 (Table 7.1).
Hydrology	There is only one dam on-site situated on the eastern boundary within Lot 200. The nearest watercourse is Dairy Creek ~400 m south of the site, followed by Spring Creek Reservoir located 1.5 km southwest of the site.
Hydrogeology	A search of the Water NSW database ² identified one registered bore on-site and 10 groundwater bores within 500 m of the site. Information pertaining to the registered groundwater bores is presented below in Table 2.3. The standing water level (SWL) ranged from 0.3 to 9.1 metres below ground level (m bgl).
Acid sulphate soils	The site is not mapped as being in an area which has an acid sulphate soil risk (eSPADE Interactive Database, 2024).
Salinity	Based on the review of information presented in the eSPADE Interactive Database (2024) the Yellow Earth soils on the site are characterised as low salinity.

Details of registered groundwater bores within 500 m of the site are summarised in Table 2.3.

Table 2.3 Summary of registered groundwater bores within 500 m of the site

No.	Date drilled	Location	SWL (m)	Use
GW042830	1976	On-site	1.5	Stock, domestic, irrigation
GW053977	1981	70 m N	-	Irrigation
GW013117	1957	160 m S	7.3	Stock, domestic, general use
GW038003	-	220 m S	3.9	Domestic
GW038004	1975	220 m S	0.3	Stock, domestic, irrigation
GW037332	1972	260 m S	-	Stock, domestic, irrigation
GW019516	1962	310 m E	3.7	Stock, domestic
GW807079	-	325 m E	-	Unknown
GW028855	1968	360 m N	9.1	Irrigation
GW026490	1966	440 m N	-	Stock, domestic, irrigation
GW802773	2003	495 m N	-	Stock, domestic, irrigation

2.3 Surrounding environment

The surrounding land use for the site are summarised in Table 2.4 below.

Table 2.4 Summary of surrounding land use

Direction from investigation areas	Land Use & Description
North	– Commercial /industrial area along with the former Highlands Paceway and further agricultural properties. The Mitchell Highway runs along the site's northeast boundary.
East	– Agricultural land, a rural residential property, and further Orange Kart Racing Club.
South	– Agricultural land and rural residential property.
West	– Lone Pine Avenue, followed by low density residential housing and recreational areas.

² [Real-time water data \(watersw.com.au\)](https://www.watersw.com.au)

2.4 Site inspection

An experienced GHD environmental scientist completed a site inspection on 20 January 2024 to assess the condition of the site. The current site layout is presented on Figures 2, 3 and 4, Appendix A. A photographic log is provided in Appendix F, with key observations of general site conditions detailed in Table 2.5.

Table 2.5 Summary of general site condition during the site inspection (20 February 2024)

Site area	Description
154 Lone Pine Avenue, Orange NSW (Lot 1 DP153167)	<p>Access to this area enters from Lone Pine Avenue to the west of a rectangular shaped paddock (~4.10 ha). The gradient of this area sloped from the north towards the southwest. The site surface was observed to be bare soil, gravels, and patchy grass. Two stockpiles were observed within the southwestern quadrant: the larger stockpile consisted of waste material that contained metal sheeting, wire, concrete rubble, used tyres, corrugated iron, PVC pipe, and potential asbestos containing material, the smaller stockpile comprised of crusher dust.</p> <p>Fill was evident in the north of the site; the ground surface was undulating and uneven and discussion with key personnel (Council) identified the fill was likely associated with the development of the commercial property directly to the north of the site.</p> <p>Broken pipe, potentially asbestos containing material (PACM), was observed across the surface of the site. Large basaltic boulders were situated in the northeast of the site.</p>
3 Redmond Place, Orange NSW (Lot 6 DP1031236)	<p>Lot 6 was a roughly rectangular shaped paddock and aircraft hangar and ~2.28 ha in size. The surface area was noted to be covered by asphalt and concrete hardstand within the northern portion (where the hangar building is situated) and cut grass within the central southern areas. The hangar building was inaccessible at the time of site inspection.</p> <p>An aboveground storage tank (AST) bunded area was observed within the northwestern portion, adjacent concreted areas, oily water was noted within a grated sump within the AST bunded area. The helipad, with two shipping containers, was observed to be adjacent the access road and hangar building.</p> <p>Fire hydrant infrastructure was observed to be adjacent to the helipad. Surficial storm water drains were evident in the south and southeastern area of the lot. The general gradient of the site was relatively flat, however, towards the southern portion of the lot, it began to slope to the southeast.</p>
5255 Mitchell Highway, Orange NSW (Lot 200 DP288388)	<p>Lot 200 is irregular in shape and ~17.85 ha in size. Lot 200 was inaccessible at the time of the site inspection. Free flowing water was observed in the drainage line flowing west to east from the culverts along Dairy Creek Road (southern feeder). Drainage lines were also observed exiting Lot 200, flowing to the east, inferred surface water flow to south and southeast towards the large drainage pipes that run beneath Dairy Creek Road (southern feeder).</p> <p>Access to Lot 200 was identified as a potential constraint to the investigation.</p>

2.5 Site conditions at the time of investigation

The current site layout is presented in Figure 1, Appendix A. A summary of key observations are as follows:

- The site is predominantly covered by open grass, the height of grass varied across the site (Lots 1, 6, and 200). Stock agistment within Lot 1 and Lot 6 were notably shorter with the surface easily visible, while Lot 200 (within the southeastern portion of the site) was notably overgrown with vegetation with no clear visibility of the ground surface. Council provided access to Lot 200, cutting a section of fencing along the eastern boundary; however, site conditions in southeastern corner of Lot 200 remained inaccessible at the time of investigation.
- The site was observed as dry, except for the southeastern corner of Lot 200. During field works (29 February 2024) there was heavy rainfall which rendered the southeastern corner of Lot 200 inaccessible by vehicle and/or excavator. A small pond of water was observed on the southeastern portion of Lot 200, along the boundary of Mitchell Highway. At the time of the investigation the pond was notably at capacity.
- Boulders, potentially serpentinite, were observed in the southwestern corner of Lot 6 adjacent property (148 Lone Pine Avenue, Orange NSW) (Photograph, Appendix F). The boulders do not appear to be in-situ and were potentially imported to site and associated with the construction of an internal residential access road.
- Three hardstand surfaces were noted in Lot 6, on the southwestern corner of the hangar, the hardstand area furthest west was bunded.
- Drainage lines within Lot 6 were noted to run downslope from the hangar area and helipad. There was no observable water within stormwater drains on-site.
- A bore was observed in Lot 200 (identified as GW042830), the SWL and depth of the bore was not obtained during this investigation.
- A fragment of cement pipe (~100 mm x 200 mm) was observed during the intrusive investigation (photograph, Appendix F) laying on the surface of the site between locations TP07 and TP08 (Figure 3, Appendix A), the fragment was collected and sent to the laboratory (analysis is currently on hold).

3. Site history

3.1 Historical aerial photographs

Historical aerial photographs (sourced from Envirowest (2023)) were reviewed to ascertain past activities and land uses at the site. A summary of observations is provided in Table 3.1 below, with copies of the aerial photographs provided in Appendix E.

Table 3.1 Summary of historical aerial photographs

Year	Site area	On-site	Off-site
1954 (Black and white)	Lot 1	Comprises an orchard with linear rows of vegetation and two structures, presumed residential houses, on the western border of the lot adjacent Lone Pine Avenue.	<p>North: Predominantly comprises cleared grassed land with some orchards and the Mitchell Highway running along the site's northeast boundary.</p> <p>East: Predominantly comprises cleared grassed land and agricultural properties and an orchard across the Mitchell Highway.</p> <p>South: Predominantly comprises orchards with some cleared grassed land.</p> <p>West: Comprises orchards and cleared grassed land.</p>
	Lot 6	Comprises cleared grassed land with a suspected dam in the northwest corner.	
	Lot 200	Contains several structures in the northern portion of the lot adjacent to the Mitchell Highway and additional structures in the southeast of the lot which extend off a driveway from the Mitchell Highway. The structures are assumed to be a mix of residential and agricultural related sheds/equipment. The remainder of the lot comprises cleared grassed land.	
1974 (Black and white)	Lot 1	All Lots (1, 6 & 200) remain relatively unchanged since the 1954 aerial image.	<p>North: Since 1954, the current raceway has been constructed on the northern side of the Mitchell Highway and orchards planted directly north of Lot 1.</p> <p>East: Since 1954, the orchard across the Mitchell Highway is no longer present.</p> <p>South: Since 1954, additional rows of vegetation are visible in the orchards.</p> <p>West: Since 1954, three streets of low-density residential housing have been constructed on the western side of Lone Pine Avenue.</p>
	Lot 6		
	Lot 200		
1984 (Black and white)	Lot 1	Remain relatively unchanged since the 1974 aerial image.	<p>North: Since 1974, additional infrastructure associated with the raceway has been constructed along with additional rows of vegetation are visible in the orchard directly north of Lot 1.</p> <p>East: Remains relatively unchanged since the 1974 aerial image.</p> <p>South: Since 1974, several orchards to the south of Dairy Creek Road have been cleared.</p> <p>West: Since 1974, additional streets of low-density residential housing have been constructed on the western side of Lone Pine Avenue.</p>
	Lot 6		
	Lot 200	Remains relatively unchanged since the 1974 aerial image apart from a second driveway extending from the buildings in the southeast of the lot towards Dairy Creek Road.	
1989 (Colour onwards)	Lot 1	Remains relatively unchanged since the 1984 aerial image.	<p>South: Since 1984, several orchards north and south of Dairy Creek Road have been cleared and assumed residential development is present.</p> <p>The surrounding area to the North, East and West remains relatively unchanged since the 1984 aerial image.</p>
	Lot 6	Since 1984, likely soil disturbance is visible in the northwest corner of the lot.	
	Lot 200	Since 1984, likely soil disturbance is visible to the west of the driveway which extends off the Mitchell Highway in the southeast of the lot.	
1993	Lot 1	Remain relatively unchanged since the 1989 aerial image.	

Year	Site area	On-site	Off-site
	Lot 6		<p>North: Since 1989, there has been increased development including a dam between the Mitchell Highway and the racetrack and several of the current commercial warehouses along Cameron Place.</p> <p>East: Remains relatively unchanged since the 1989 aerial image.</p> <p>South: Since 1989, several orchards south of Dairy Creek Road have been cleared.</p> <p>West: Remains relatively unchanged since the 1989 aerial image.</p>
	Lot 200	Since 1989, there has been activity in the southeast area of the lot with a dam visible to the west of the driveway which extends off the Mitchell Highway. Additionally, the southern driveway to Dairy Creek Road is no longer present.	
1998	Lot 1	Since 1993, the orchards previously present on the lot appeared to have been cleared.	The surrounding area to the remains relatively unchanged since the 1993 aerial image in all directions.
	Lot 6	Since 1993, the suspected dam in the northwest corner of the lot appears to have been filled in while further soil disturbance is evident in the southwest corner of the lot.	
	Lot 200	Since 1993, all buildings across the lot are no longer present apart from the current public bathroom facility located to the north of the lot adjacent the Mitchell Highway. Soil disturbance is visible in the southeast corner of the lot.	
2003	Lot 1	Since 1998, filling activity has been noted within the northern portion of the lot.	<p>North: Since 1998, several commercial warehouses have been constructed directly north of Lot 1.</p> <p>The surrounding area to the East, South and West remains relatively unchanged since the 1998 aerial image.</p>
	Lot 6	Since 1998, Redmond Place, a hangar building, and helipad, and associated infrastructure including a bunded above ground storage tank (AST) have been constructed.	
	Lot 200	Since 1998, an unsealed access track is visible across the lot from the southeast to the northwest. Additionally, the current line of trees adjacent the Mitchell Highway are present.	
2010	Lot 1	<p>Lot 1: Since 2003, the buildings on the western portion of the lot have been removed and soil disturbance is visible.</p> <p>Lot 6 & Lot 200: Remain relatively unchanged since the 2003 aerial image.</p>	<p>North: Since 2003, there has been further commercial development along the Mitchell Highway and Gateway Crescent.</p> <p>The surrounding area to the East, South and West remains relatively unchanged since the 2003 aerial image.</p>
	Lot 6		
	Lot 200		
2012	Lot 1	Since 2010, the current waste stockpile appears to be visible.	The surrounding area remains relatively unchanged since the 2010 aerial image in all directions.
	Lot 6	Remain relatively unchanged since the 2010 aerial image.	
	Lot 200		
2013 – 2016	Lot 1	All Lots (1, 6, 200) remain relatively unchanged through this period.	The surrounding area remains relatively unchanged through this period in all directions.
	Lot 6		

Year	Site area	On-site	Off-site
	Lot 200		
April 2017	Lot 1	Since 2016, several structures have been brought on to the southwest area of the lot.	The surrounding area remains relatively unchanged since the 2016 aerial image in all directions.
	Lot 6	Remain relatively unchanged since the 2016 aerial image.	
	Lot 200		
July 2017	Lot 1	Since April 2017, the structures formerly visible have been removed and the area appears to be covered in a gravel material with a small stockpile present.	The surrounding area remains relatively unchanged since the April 2017 aerial image in all directions.
	Lot 6	Remains relatively unchanged since April 2017.	
	Lot 200	Since April 2017, there is evidence of soil disturbance in the centre of the lot.	
March 2018 – August 2020	Lot 1	The site (Lot 1,6, and 200) remain relatively unchanged through this period.	The surrounding area remains relatively unchanged through this period in all directions.
	Lot 6		
	Lot 200		
February 2021	Lot 1	Remain relatively unchanged since August 2020.	The surrounding area remains relatively unchanged since August 2020 in all directions.
	Lot 6		
	Lot 200	Since August 2020, an extension to Dairy Creek Road has begun construction through the southern portion of the lot.	
July 2021	Lot 1	Since February 2021, material has been imported to the western portion of the lot with three light brown stockpiles visible.	The surrounding area remains relatively unchanged since February 2021 in all directions.
	Lot 6	Remains relatively unchanged since February 2021.	
	Lot 200	Since February 2021, additional development of the Dairy Creek Road extension has occurred.	
December 2021	Lot 1	Remain relatively unchanged since July 2021.	The surrounding area remains relatively unchanged since July 2021 in all directions.
	Lot 6		
	Lot 200	Since July 2021, the Dairy Creek roadworks traversing the lot have been completed.	
April 2022	Lot 1	All lots (1, 6 & 200) remain relatively unchanged since the December 2021 aerial image.	The surrounding area remains relatively unchanged since December 2021 in all directions.
	Lot 6		

Year	Site area	On-site	Off-site
	Lot 200		
September 2022	Lot 1	Since April 2022, material has been imported near the centre of the lot with one dark brown stockpile visible.	The surrounding area remains relatively unchanged since April 2022 in all directions.
	Lot 6	Since April 2022, material has been imported across the lot with four light brown stockpiles visible.	
	Lot 200	Remains relatively unchanged since the April 2022 aerial image.	
February 2023	Lot 1	Since September 2022, the dark brown stockpile previously visible is no longer present.	The surrounding area remains relatively unchanged since September 2022 in all directions.
	Lot 6	Remain relatively unchanged since the September 2022 aerial image.	
	Lot 200		

3.1.1 Summary of aerial photographs

A review of the site’s historical aerial images (sourced from Envirowest (2023)) highlighted the following potential contamination issues:

- Demolition and removal of structures on-site, circa 1998 for Lot 200 and circa 2010 (within Lot 1)
- Soil disturbance activity occurring intermittently across all areas of the site that included infilling of dams
- Stockpiles of soil and potential waste were observed intermittently across the site (particularly within Lot 1)
- Extension of Southern Feeder Rd (formerly Dairy Creek Road) in 2021 dissecting the southeastern portion of Lot 200
- Emplacement of fill material in 2003 observed within Lot 1
- Orchards present on-site from at least 1954 to circa 1998

3.2 Historical land titles

The historical title information indicates the registered proprietors are outlined in Table 3.2 below.

Table 3.2 Summary of historical land titles

Investigation Area	Dates	Owner and occupation
Lot 1		
Lot 1 DP153167	04/03/1920 (1920 to 1934)	Urban Sparkes
	12/11/1934 (1934 to 1935)	William Herbert Walter Owers (Farmers and Grazier) John Owers (Junior) (Farmers and Grazier)
	06/08/1935 (1935 to 1966)	John Hutchinson Williams (Orchardist)
	09/11/1966 (1966 to 1981)	Arthur Edward Williams (Orchardist)
	01/08/1981 (1981 to 1993)	Keren Faith Wilde (Devisee of the Will of Arthur Edward Williams)
	03/12/1993 (1993 to 1998)	Joy Audrey Somerville – Warren Edward Somerville
	23/02/1998 (1998 to 1998)	Warren Edward Somerville
	15/07/1998 (1998 to 2002)	Lone Pine (Orange) Pty Limited
	22/11/2002 (2002 to 2010)	Maitcorp Pty Limited
	07/07/2010 (2010 to Date)	Orange City Council
Lot 6		
Lot 6 DP1031236	25/08/1922 (1922 to 1925)	Emily Agnes King (Married Woman)
	03/03/1925 (1925 to 1927)	Maurice Tasman Crampton (Farmer)
	14/10/1927 (1927 to 1928)	George William Frecklington (Farmer & Orchardist)

Investigation Area	Dates	Owner and occupation
	27/07/1928 (1928 to 1930)	Commissioners of the Government Savings Bank
	20/10/1930 (1930 to 1937)	Vida Mary Harris (Married Woman)
	30/06/1937 (1937 to 1951)	John Harris (Farmer & Grazier)
	15/02/1951 (1951 to 1953)	Allen Charles Harris (Farmer & Grazier) Arnold Morcomb Harris (Farmer & Grazier)
	25/03/1953 (1953 to 1994)	Peter Joseph Redmond (Farmer) Gregory Bernard Redmond (Farmer) (& their deceased estates)
	02/02/1994 (1994 to Date)	Orange City Council
Lot 200		
Lot 200 DP1288388 (West)	25/08/1922 (1922 to 1925)	Emily Agnes King (Married Woman)
	03/03/1925 (1925 to 1927)	Maurice Tasman Crampton (Farmer)
	14/10/1927 (1927 to 1928)	George William Frecklington (Farmer & Orchardist)
	27/07/1928 (1928 to 1930)	Commissioners of the Government Savings Bank
	20/10/1930 (1930 to 1937)	Vida Mary Harris (Married Woman)
	30/06/1937 (1937 to 1951)	John Harris (Farmer & Grazier)
	15/02/1951 (1951 to 1953)	Allen Charles Harris (Farmer & Grazier) Arnold Morcomb Harris (Farmer & Grazier)
	25/03/1953 (1953 to 1994)	Peter Joseph Redmond (Farmer) Gregory Bernard Redmond (Farmer) (& their deceased estates)
	02/02/1994 (1994 to Date)	Orange City Council
Lot 200 DP1288388 (East)	14/12/1903 (1903 to 1934)	14.12.1903 (1903 to 1934)
	21/12/1934 (1934 to 1951)	John Harris (Grazier)
	15/02/1951 (1951 to 1953)	Allen Charles Harris (Farmer & Grazier) Arnold Morcomb Harris (Farmer & Grazier)
	25/03/1953 (1953 to 1994)	Peter Joseph Redmond (Farmer) Gregory Bernard Redmond (Farmer) (& their deceased estates)
	02/02/1994 (1994 to date)	Orange City Council

3.3 Contaminated sites notified to the NSW EPA

The NSW EPA maintains a “List of NSW contaminated sites notified to the EPA” under Section 60 of the *CLM Act*. Inclusion on this list indicates that the notifiers consider a site are contaminated and warrant reporting to NSW EPA.

A search of the list did not identify any premises within 1 km of the site that have been notified to the NSW EPA.

3.4 Contaminated land records of notices

The NSW EPA maintains a list of sites that appear on the register for Contaminated Land: Record of Notices which are issued under the *CLM Act*.

A search of this register did not identify any premises within 1 km of the site as being subject to current or prior notice.

3.5 Hazardous Chemical Search – SafeWork NSW

A request for a Site Search for Schedule 11 Hazardous Chemicals (dangerous goods) on premises application was received by SafeWork NSW on the 21/06/2023 for the following Lots: Lot 1 DP153167 - 3 Redmond Place - Lot 6 DP1031236 - 5255 Mitchell Highway Lot 200 DP1288388 Orange NSW 2800. A search of records held by SafeWork NSW indicated that no records for hazardous chemicals were available for the site (Appendix 2, Envirowest (2023)), provided in Appendix E, and based on this the storage of significant volumes of hazardous chemicals is considered unlikely; however, there may have been smaller volumes stored historically on-site.

4. Previous environmental investigations

A report associated with previous investigation undertaken at the site was provided to GHD by Landcom as part of this project. The key findings of the contamination investigation which was reviewed by GHD is summarised below. Reference should be made to the specific document for more detailed information.

4.1 Preliminary contamination investigation (Envirowest Consulting, 2023)

The relevant objective of the preliminary investigation was to provide a preliminary contamination assessment to determine suitability of the site for the proposed future land use.

The scope of work developed to meet this objective included a desktop review of publicly available information and a visual site inspection (27 July 2023). The outcomes of the assessment identified the following:

- The site's historical land use included agriculture, primarily orchards on Lot 1, and stock grazing on the remainder of the site. Various structures were observed in historical aerial imagery across the site that are no longer present.
- At the time of the site inspection Lot 1 and the southern portion of Lot 6 were used for stock grazing (i.e. horses, cattle, and sheep).
- An area of imported fill was identified in the northern portion of Lot 1, Envirowest detailed the source of which was unknown. Potential asbestos containing cement pipe was identified in two locations on the surface of the fill area, and suspected asbestos containing material (ACM) as bonded fragments were identified on the surface in the western portion of Lot 1.
- A stockpile of foreign materials including timber, concrete, brick, and metal was identified in the western portion of Lot 1.
- Oil staining and potential ACM were observed on the concrete within the bunded area on Lot 6.
- Ash material was identified in the northern section of Lot 200.

Based on their assessment, Envirowest concluded that further assessment is required to characterise the contamination status of the site and recommended a detailed site investigation (DSI) including a sampling, analysis, and quality plan (SAQP) was undertaken to assess the sites' suitability for proposed residential land-use.

5. Preliminary conceptual site model

A conceptual site model (CSM) is a representation of site-related information regarding potential contamination sources, receptors and exposure pathways between those sources and receptors. The preliminary CSM is developed using information obtained from site history, former and current land use, and other relevant environmental information. The development of a preliminary CSM is an essential part of site contamination assessments and provides the framework for identifying contamination sources and how potential receptors may be exposed to contamination.

5.1 Potential contamination sources

Potential contamination sources identified on-site during the review of information are detailed below:

- Potential use of pesticides across the site associated with historical agricultural activities.
- Hazardous building materials (asbestos and lead) located in and on soils around former buildings on site.
- Potential presence of uncontrolled fill materials at the site, as observed in the historical aerial photographs.
- Potential spills/leaks associated with the former bunded AST (the AST has since been removed).
- Potential presence of per- and polyfluoroalkyl substances (PFAS) in soil and/or groundwater associated with the former hangar and helipad identified on site.

5.2 Contaminants of potential concern

The primary identified source of contamination is the historical agricultural land use (i.e., orchards and stock grazing), observed soil and waste stockpiles, importation of fill material, and demolition of historical on-site buildings. Contaminants of potential concern (COPC) include:

- Total recoverable hydrocarbons (TRHs).
- Benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN).
- Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc).
- Polycyclic aromatic hydrocarbons (PAHs).
- Organochlorine pesticides (OCPs) and organophosphate pesticides (OPPs).
- Per- and Polyfluoroalkyl Substances (PFAS).
- Asbestos.

5.3 Potential receptors and exposure pathways

When evaluating potential adverse health and environmental effects from exposure to a contaminated site, potentially exposed populations should be considered. For this site, the key populations and receptors of interest are considered to include:

- Future residents and/or site users.
- Construction workers and intrusive maintenance workers (IMW).
- Non-potable use of extracted groundwater (the nearest bores within 500 m radius of the site registered for stock, domestic, and irrigation purposes).
- Terrestrial ecological receptors within on-site soils.
- Migration of surface water to aquatic ecological receptors (on-site dam and downgradient Dairy Creek).

For an exposure to occur, a complete pathway must exist between the source of contamination and the receptor. Where the exposure pathway is incomplete, there is no exposure, and hence no risk. Potential exposure pathways are:

- Direct contact and/or ingestion of contaminated soil, fill materials, surface water, and/or extracted groundwater (oral and dermal contact).

- Inhalation of contaminated soil during soil disturbance works and/or windblown contaminated dust and asbestos fibres.
- Migration of PFAS contaminants via overland flow into drainage channels and downward migration into groundwater underlying the site.

5.4 Potential Source-Pathway-Receptor linkages

Based on the desktop information reviewed and observations obtained during previous investigation (Envirowest Consulting, 2023) a tabulated preliminary CSM which describes potential risks through source-pathway-receptor (SPR) linkages is presented in Table 5.1, and was used to inform this investigation.

Table 5.1 Source-pathway-receptor-linkages

Source	COPC	Pathway	Receptor	SPR linkages
<p>Use and/or storage of pesticide for agricultural land use</p> <p>Hazardous building materials (i.e., asbestos and lead) located in and on soil around former buildings and structures</p> <p>Uncontrolled fill materials imported to site, infilling of dams, and observations of changes to the ground surface</p> <p>Use and/or storage of fuel associated with an aboveground storage tank (AST)</p> <p>Use and/or storage of per- and polyfluoroalkyl substances (PFAS) associated with former operation of the hangar and helipad</p>	<p>TRH, BTEXN, PAH, VOC, Phenols, PCB, PFAS, heavy metals, OCP/OPP, and asbestos</p>	<p>Direct contact and/or incidental ingestion of contaminated soils</p> <p>Inhalation of contaminated soils and/or dust during soil disturbance works</p>	<p>Existing and future site users</p> <p>Terrestrial ecological receptors on on-site soils</p>	<p>Potentially complete: Historical aerals (sourced from Envirowest (2023)) identified orchards between 1954 to 1993 in Lot 1 on-site and stock grazing. The current land use is stock grazing / agistment.</p> <p>The site is unsealed and consists of grassed paddocks, and a drainage line that runs north to south is evident on the eastern boundary of the site.</p> <p>Further, the site inspection (refer Section 2.4) made the following observations:</p> <ul style="list-style-type: none"> – A large stockpile of waste material, a smaller stockpile of crusher dust, and evidence of fill material within Lot 1 that may contain contaminated material which presents a risk to current and future site users. – Potential ACM across the surface (i.e., pipe fragments and potentially asbestos bonded material) within Lot 1 that was additionally observed in previous investigation by Envirowest (2023). – An historical AST (based on aerial photographs) and a concrete bund (still present) in Lot 6 that represents a potential risk of contamination impacting both soils and groundwater due to potential leaks and spills during the use and storage of fuel. Evidenced by oily water present within a grated sump; however, the bund was in good condition and there was no evidence of staining on the base and sidewalls, nor on the ground directly surrounding the bund. – Firefighting infrastructure adjacent the helipad and hangar building within Lot 6, with the potential for historical storage and/or use of firefighting foam (AFFF) containing PFAS.
			<p>Aquatic ecological receptors of Dairy Creek</p>	<p>Incomplete: The nearest watercourse, Dairy Creek is situated ~400 metres, at its closest point, to the south of the site. It is considered unlikely that contamination in surface water, if present, will migrate to Dairy Creek.</p>

Source	COPC	Pathway	Receptor	SPR linkages
		Direct contact with contaminated groundwater	On- and off-site users of non-potable water	Potentially complete: Water NSW identified a groundwater bore (GW042830) on site, which was observed within Lot 200 during the site inspection. SWL is reported as shallow 1.5 m bgl. The nearest off-site groundwater bores (10) within 500 m of the site are registered for irrigation, stock, domestic, and unknown use. SWLs were recorded between 0.3 to 9.1 m bgl.

6. Basis for assessment

A key step in the ASC NEPM (NEPC, 2013) site investigation process is a screening ('Tier 1') risk assessment which is a screening risk assessment that involves the comparison of measured contaminant concentrations with conservative published assessment criteria. The aim of this process is to identify whether there are SPR linkages that have the potential to result in risk to human-health and/or the environment.

The adopted human-health and ecological assessment criteria have been adopted from assessment criteria presented in the NEPM (2013) as discussed below. The NEPM provides site investigation screening levels for four broad land use categories, including:

- Scenario A – low density residential, with access to gardens.
- Scenario B – high density residential, with limited access to soil.
- Scenario C – public open space.
- Scenario D – commercial/industrial.

The footprint of the site is currently vacant land (used for stock agistment) apart from a former hangar (currently used for caravan and barbeque equipment storage), helipad, and associated infrastructure (including a concrete bund) that occupies the northern portion of Lot 6. The future land use scenario at the site is for residential development that includes green space, therefore, low density residential, public open space, and intrusive maintenance workers (IMW) are considered most applicable in this setting and have been adopted accordingly.

6.1 Soil assessment criteria

6.1.1 Human-health assessment criteria

The adopted soil assessment human-health criteria were sourced primarily from the ASC NEPM (NEPC, 2013) and NEMP (HEPA, 2020) that include Health Screening Levels (HSLs for petroleum hydrocarbons) and Health Investigation Levels (HILs for other contaminants). The HSLs and HILs are designed to be protective of human health across a variety of land use scenarios that consider direct contact pathways, including ingestion and dermal contact. In consideration that the site will be an active development the HSLs derived by Friebel and Nadebaum (CRC CARE, 2011) for intrusive maintenance workers (IMW), not incorporated into the ASC NEPM, have been used in this assessment.

HIL A (low density residential) relevant for the protection of human health for residential land use with garden/accessible soil (home grown produce <10% fruit and vegetable dietary intake) has been adopted as the most conservative approach for the soil assessment in this investigation. The ASC NEPM does not provide HILs for intrusive maintenance workers (IMW).

NEMP (HEPA, 2020) low density residential has been adopted in consideration of the former hangar building (currently used for equipment storage), helipad and associated fuel infrastructure (within Lot 6) and the potential historical use and/or storage of flammable liquid fire suppression foam.

The ASC NEPM (NEPC, 2013) incorporates guidance provided by the Western Australian Department of Health (2009). It includes assessment of bonded asbestos containing material (bonded ACM), fibrous asbestos (FA) and asbestos fines (AF). In 2021, WA DoH Guidelines for Remediation and Management of Asbestos Contaminated Sites in Western Australia (2021) were updated, however, at the time of writing it has not been endorsed by the NSW EPA. Nevertheless, it is noted that the criteria for asbestos (i.e., bonded or fibrous) have not changed.

Selected soil samples will be screened for asbestos using a presence/ absence protocol in laboratories. This analytical method does not allow quantification of asbestos concentrations in soil for comparison against the HSL criteria in NEPM (NEPC, 2013). Therefore, the criterion adopted is based on positive or negative identification of asbestos in collected soil samples.

For gravimetric quantification analysis, the ASC NEPM (NEPC, 2013) HSL residential land use (HIL A) for asbestos will be adopted as the screening criteria. The criteria are presented in Table 6.1 in the event asbestos is encountered during the field works.

Table 6.1 Asbestos assessment criteria

Form of asbestos	Residential health screening level A (w/w)
All forms of asbestos	No visible asbestos for surface soil (top 0.1 m)

Notes:

- (1) Bonded asbestos containing material (Bonded ACM) – sound condition although possibly broken or fragmented and the asbestos is bound in a matrix such as cement or resin.
- (2) Fibrous asbestos (FA) – friable asbestos materials such as severely weathered ACM and asbestos in the form of loose fibrous materials such as insulation.
- (3) Asbestos fines (AF) – including free fibres of asbestos, small fibre bundles and also fragmented ACM that passes through a 7 mm x 7 mm sieve.
- (4) The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres

6.1.2 Ecological assessment criteria

Given the urban open space areas proposed for the site along the eastern boundary (Mitchell Highway) and surrounding the existing hangar (within Lot 6) the adopted ecological assessment criteria sourced from the ASC NEPM (NEPC, 2013) included Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for urban residential public open space.

The ASC NEPM (NEPC, 2013) describes the method for establishing site-specific EILs for selected heavy metals (chromium III, copper, nickel, and zinc). This method involves the use of ambient background concentrations (ABC) and an added contaminant limit (ACL), where the EIL is derived from the sum of the ABC and ACL. The ASC NEPM (NEPC, 2013) provides an excel calculator within the ASC NEPM toolbox (EILs spreadsheet). The algorithms underlying the EIL spreadsheet are detailed in Schedule B7 of the ASC NEPM (NEPC, 2013).

In consideration of the homogeneity in the upper soil profile observed during site investigation (refer Section 7.2.1), the derivation of site-specific EILs for selected heavy metals (chromium (III), copper, nickel, and zinc) have been adopted. Table 6.2 presents the specific EILs for urban residential public open space land use. The EIL calculator outputs for each of the analytes are presented in Appendix K.

The methodology detailed in the ASC NEPM (NEPC, 2013) assumes that the ecosystem has adapted to the ABC at a particular site and concentrations greater than this may have an adverse effect on the ecosystem. The ABC is the sum of the naturally occurring concentrations and potential contaminant concentrations introduced from anthropogenic activities i.e. emissions from motor vehicles. The ACLs, the added contaminant concentration above the ABC, for the site are based on the soil physiochemical parameters provided in Table C1, Appendix C.

ESLs developed for the assessment of hydrocarbon compounds and TRH fractions applicable for potential risk to terrestrial ecosystems, and NEMP (HEPA, 2020) direct and indirect ecological assessment criteria for assessing the bio accumulative nature of PFAS, have been adopted in this investigation, as discussed above in Section 6.1.2.

Table 6.2 Adopted site specific EIL criteria (mg/kg)

Analyte	Urban Residential – Public Open Space
Chromium (III + VI)	480
Copper	200
Nickel	150
Zinc	460

6.2 Data quality objectives

The quantity, nature and quality of the data collected in any environmental investigation are determined by establishing data quality objectives (DQOs). Data quality indicators (DQIs) are used to evaluate the quality performance of the investigation. Further detail is presented in Appendix B. Consideration of the DQOs must be given to ensure sufficient data are gathered to characterise potential contamination and conditions at a site and to enable the preparation of a conceptual site model (CSM). The DQOs for this investigation have been developed in accordance with Schedule B(2) of the NEPM ASC (NEPC, 2013), presented in Appendix B.

6.3 Investigation methodology

GHD developed a site-specific health, safety, and environment (HSE) plan for the sampling investigation as part of the overall commitment to provide a healthy and safe environment for the field staff and subcontractors. All work employed use of personal protection equipment (PPE) in accordance with GHD HSE requirements.

The HSE plan included a job safety and environment analysis (JSEA), detailing the step-by-step procedures of all aspects of the works and associated hazards and control measures to be implemented. The HSE plan was read and signed by all GHD personnel, and subcontractors and feedback and discussion provided prior to the works commencing. A site-specific pre-start safety assessment was conducted before the start of works.

Service clearance was undertaken by a professional underground services locator. Service clearance was completed to reduce the risk of intersecting subsurface services during the intrusive works, referencing Before-You-Dig-Australia (BYDA) plans. It is noted that underground service plans were not available from Landcom or Council for the site.

Soil samples were collected and analysed from 31 locations during this investigation. NSW EPA *Sampling Design Guidelines* (2022) recommend subdividing the site into sub-areas according to geology, geographical features, nature of contamination and the former usage pattern of the site to determine an appropriate sampling design. Based on the preliminary nature of this investigation, designed to provide an indication of potential contamination that may present constraints to the proposed residential development, and GHDs understanding that the site has predominantly been used as rural pasture, it is reasonable to reduce the recommended number of locations for a preliminary investigation of an area of this size to 30 locations.

The investigation methodology utilised during this investigation consistent with relevant GHD standard operating procedures (SOPs) and Australian Standard guidance are presented in Appendix D.

Table 6.3 provides a summary of investigation locations and rationale for their selection. The soil sample locations are presented on Figure 3, Appendix A.

Table 6.3 Summary of soil investigation locations and rationale

Sample ID	Location	Analytical suite	Investigation rationale
TP01 – TP10	Lot 1	TRH / BTEXN / PAH / PCBs / VOCs / Phenols / OCP and OPP / heavy metals / asbestos (presence / absence) / CEC, clay content, pH, iron	To assess the nature of soils on-site for potential human-health and/or environmental risk due to contamination.
TP11 – TP13, and PFAS_S1 ¹	Lot 6	TRH / BTEXN / PAH / PCBs / VOCs / Phenols / OCP and OPP / heavy metals / asbestos (presence / absence) / PFAS (short suite)	Record lithology in test pit locations to assist in characterising contamination migration pathways and assessment of potential concentrations of COPC in soils sampled.
TP14 – TP30 ¹	Lot 200	TRH / BTEXN / PAH / PCBs / VOCs / Phenols / OCP and OPP / heavy metals / asbestos (presence / absence) / CEC, clay content, pH, iron	

¹ Soil samples taken from locations PFAS_S1, TP29 and TP30 were surface samples only.

6.3.1 Deviations from the proposal

The excavation and soil sampling methodology were generally undertaken in accordance with the proposal. Table 6.4 summarises variations to the proposal.

Table 6.4 *Deviations from the proposal(GHD, 2024) during excavation and soil sampling*

Location	Proposal	Outcome and reasoning
154 Lone Pine Avenue (Lot 1 DP153167)	The site boundary included an area of ~24.23ha (Figure 1, Appendix A) that incorporated the following: <ul style="list-style-type: none"> – Lot 1 DP153167 – Lot 6 DP1031236 – Lot 200 DP1288388 	During the inception meeting (dd. 22 January 2024) GHD were advised that an area to the north and south of Lot 200, and the hangar building and associated helipads within Lot 6 would not be included in the site investigation given the hangar is occupied and used by local community groups as storage space. The site investigation area is presented on Figure 2, Appendix A.
3 Redmond Place (Lot 6 DP1031236)		
5255 Mitchell Highway, Orange (Lot 200 DP1288388)		
	Test pit locations (TP29 and TP30) in the southeastern corner of Lot 200 (refer Figure 2, Appendix A) proposed excavation with soil samples to be collected at depth intervals: surface to 0.1 m bgl, 0.5 m bgl, 1.0 m bgl, and every metre thereafter.	Due to site conditions, in the southeastern corner of Lot 200, observed during the investigation as waterlogged and overgrown with vegetation. In lieu of these conditions surface samples (0 – 0.2 m bgl) were collected and analysed at TP29 and TP30 (Lot 200).

7. Results and discussion

A GHD field scientist attended the site between 28 February and 1 March 2024 to complete the intrusive investigation. Table 6.3 provides a summary of the fieldwork and sampling locations are presented on Figure 3, Appendix A. Analytical results summaries are presented in Table C1, Appendix C.

7.1 QA/QC evaluation

The GHD field team collected soil samples in accordance with the methods described in Schedules B(2) of the NEPM ASC (NEPC, 2013) and the practices detailed in AS 4482.1.2005 (Standards Australia, 2005). The review of the QA/QC program (presented in Appendix J) indicates that the DQIs have primarily been met. The analytical data is therefore considered to be of an acceptable quality with which to draw meaningful conclusions for the purpose of this investigation.

7.2 Field observations

7.2.1 Subsurface stratigraphy

A summary of the stratigraphic profile encountered in during the investigation is presented in Table 7.1, below. Test pit logs are provided in Appendix H.

Table 7.1 Generalised stratigraphic profile

Unit	Unit Description	Depth (m bgl)
Topsoil	Clayey SILT / Silty CLAY: none to medium plasticity, light to dark brown with grey/red mottling, W<PL to W=PL with rootlets organics, charcoal inclusions, and glass. Black agricultural polyvinyl chloride (PVC) pipe was observed in TP10_0 – 0.2.	Surface – 0.5
Fill	Generally Clayey SILT / Silty CLAY: medium plasticity, brown, W<PL to W=PL with rootlets and up to 40% cobbles and red staining. Road base gravels identified in TP11 0 – 0.25.	Surface – 1.95
Natural	Silty CLAY / CLAY: none to medium plasticity, brown/orange/red/grey, W<PL to W=PL with organics, rootlets, ironstone inclusions, iron staining, fine to medium grained sand, up to 40% cobbles and up to 60% weathered rock.	0.5 – 2.75

Abbreviations: Plastic Limit (PL) is the moisture content at which a fine-grained soil can be moulded without cracking, W<PL (wet, near the plastic limit), W=PL (soils can be moulded at a moisture content equal to the plastic limit).

7.2.2 Potential asbestos containing material (PACM)

A pipe fragment was collected during the intrusive investigation by GHD's environmental scientist (a licenced asbestos assessor (LAA)). The fragment sample was collected from the soil surface between test pit locations TP07 and TP08 (photograph, Appendix F) in Lot 1 (presented on Figure 3, Appendix A). This fragment was observed as asbestos based on the experience of the GHD's field staff and was sent to the laboratory but not analysed. The sample, ACM_1, was placed on hold and documented where the fragment was located, in accordance initial discussion at inception meeting (dd. 12 February 2024) with Landcom.

7.2.3 Field PID screening

Soil samples collected from investigation locations were screened in the field for the presence of volatile organic compounds (VOC) using a photo ionisation detector (PID). PID readings ranged from 0.0 ppm to 0.8 ppm which indicates a low likelihood of the presence of volatile contaminants in the soils sampled. The calibration certificate and PID readings and calibration certificate are included in Appendix G and Appendix H, respectively.

7.3 Soil results

7.3.1 Overview of soil analytical results

Seventy-one primary soil samples from thirty-one locations (TP01-TP30, and PFAS_S1) were analysed as part of this investigation. All available soil analytical results are summarised in Table C1, Appendix C. Laboratory reports, chain of custody (COC), and sample receipts (SRN) are provided in Appendix I. Exceedances of the adopted assessment criteria are shown on Figure 3, Appendix A, and presented below in Table 7.2.

Table 7.2 Summary of concentrations exceeding soil assessment criteria

Analyte	Sample location	Sample Depth (m bgl)	Sampling date	Concentration (mg/kg)	Assessment criterion exceeded
Chromium (III + VI) ¹	TP02	0.5 – 0.6	28/02/24	106	HIL A – Low Density Residential (100 mg/kg)
	TP11	0 – 0.2	29/02/24	295	
	TP16	0.5 – 1.0	29/02/24	153	
	TP27	0.5 – 0.7	01/03/24	123	
Nickel ¹	TP11	0 – 0.2	29/02/24	257	Site-specific EIL – Urban Residential – Public Open Space (150 mg/kg)

¹ Two soil samples were collected and analysed from sampling location TP11_0 – 0.2 m bgl with chromium (total) and nickel concentrations reported above HIL A, and site-specific EIL – Urban Residential – Public Open Space. For the purposes of this report the highest concentrations have been adopted.

The following COPCs were reported in soil samples at concentrations above the laboratory LOR but below the adopted human-health and ecological assessment criteria:

- TRH F3 (>C16-C34 Fraction) (190 mg/kg) and TRH F4 (>C34-C40 Fraction) (240 mg/kg) within inter-laboratory duplicate sample FD2 (paired with primary TP03_1.0 – 1.2) within Lot 1.
- Organochloride pesticides (OCP) (between 0.09 to 1.11 mg/kg) 4,4'-DDE within TP01_0 – 0.2, TP02_0 – 0.2, paired primary and duplicate samples TP04_0 – 0.2 / FD3, TP08_0 – 0.2, TP09_0 – 0.2, and 4,4'-DDE and 4,4-DDD within in TP08_2 – 2.2 (Lot 1), and 4,4-DDD within TP13_0 – 0.5 (Lot 6).
- PFOS (0.0003 mg/kg) in surface sample PFAS_S1 taken within the drainage line located within Lot 6. It is noted that 3 locations (TP11, TP12, and PFAS_S1) were selected to assess potential PFAS contamination associated with the former helipads and hangar building in Lot 6.
- Various metals (arsenic, chromium (III+VI), copper, lead, nickel, and zinc) within an order of magnitude below the adopted assessment criteria in the majority of soil samples.

7.4 Soil discussion

The majority of soil samples collected and analysed from the site (TP01 to TP30, and PFAS_S1) reported concentrations of contaminants that were either below the laboratory LOR and/or relevant assessment criteria. Those soil samples which reported COPC that exceeded the relevant assessment criteria are discussed further below.

7.4.1 Direct contact assessment criteria

Chromium

Chromium (III + VI) (total chromium) concentrations greater than the adopted assessment criterion for the protection of human-health in a low-density residential setting (HIL A; 100 mg/kg) were identified in soil samples collected from 4 test pit locations **TP02_0.5 – 0.6** (Lot 1), **TP11_0 – 0.2** (Lot 6), **TP16_0.5 – 1.0**, and **TP27_0.5 – 0.7** (Lot 200), and three surface samples within the site (Figure 3, Appendix A). The chromium (III + VI) concentrations ranged from 15 to 295 mg/kg, with an average concentration of 51 mg/kg.

The ASC NEPM (NEPC, 2013) Schedule B7 (in Appendix A1) identifies the derivation for chromium (III + VI) value (100 mg/kg) in HIL A (low-density residential) was formulated for chromium (VI) given that it is less stable in the environment than chromium (III) and readily soluble. The Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2022) states that there is natural variability in chromium (III), a relatively common element, that is naturally occurring in rocks, soils, plants, animals, and in volcanic dust and gases. Moreover, it states that chromium (III) compounds are considerably less toxic than chromium (VI) and they are reported to be neither irritating nor corrosive under normal conditions. However, all forms of chromium can be toxic at high concentrations.

An additional line of evidence that chromium concentrations detected on-site are likely naturally occurring, is that chromium concentrations exceeding the guideline value (HIL A) were detected in deeper samples, except for TP11_0 – 0.2 (adjacent the former AST bunded area).

During this investigation speciated analysis of the reported chromium total (III + VI) (295 mg/kg) was conducted and the outcomes determined that the total chromium concentration consisted only of chromium (III), with chromium (VI) reported below the laboratory limit of reporting (LOR). In this context, chromium (III) concentrations detected in on-site soils are considerably less toxic and represents a low risk to human-health in a low-density residential setting.

7.4.2 Ecological assessment criteria

Nickel

Nickel concentrations (257 mg/kg) greater than the site-specific EIL criterion (150 mg/kg) for the protection of ecological receptors in an urban residential open public space was identified in one surface sample (TP11_0 – 0.2) which is adjacent to the former hangar building and concrete bund. Historically this bund contained an AST, since removed, for the storage of aviation fuel.

The DCCEEW (2022) states that nickel is naturally found in soils and emitted from volcanoes. Wind-blown dust is identified as a minor source of atmospheric nickel, in conjunction with vehicle emissions from the use of diesel and fuel. Stormwater runoff is additionally identified as a source of nickel in soil.

The nickel concentration (257 mg/kg) reported in TP11_0-0.2 is considered not indicative of general soil on-site as the majority of other nickel concentrations reported during this investigation were generally within an order of magnitude of the laboratory LOR. On this basis the nickel exceedance is considered localised within this area (in proximity to the former helipad operation), it is considered moderately disturbed (light industrial) and with low value to ecological receptors. Furthermore, the nickel exceedance above site-specific EILs was below 2.5 times the site-specific EIL criterion which indicates that it is unlikely to be considered a hotspot.

GHD understands that the area that incorporates sampling location TP11, located adjacent the former hangar building, and concrete bund (within Lot 6), is included to inform the nature and extent for potential impacts from activities associated with the former hangar, helipad, and fuel infrastructure with the potential to effect surface water run-off.

7.4.3 Summary of soil impacts

The contaminants of primary concern for on-site soils during this investigation are chromium (III) and nickel. The data presented above suggests that these COPC are unlikely to pose unacceptable human health risks for the proposed residential land use.

Asbestos was not detected in soil samples analysed, however, a potential asbestos containing material (PACM) was collected (not analysed) from the soil surface in Lot 1. PACM was not observed within any of the test pit locations during the intrusive investigation, however, fragments of PACM were observed on the soil surface of Lot 1 consistent with observations made by Envirowest (2023).

8. Revised conceptual site model

The preliminary CSM presented in Section 5.4 has been revised based on the information gained from this assessment. The revised CSM describes potential risks from exposure through Source-Pathway-Receptor linkages, presented in Table 8.1.

Table 8.1 Revised SPR linkages

Potential source	COPC	Potential Pathways	Potential Receptors	SPR linkage complete?
<p>Use and/or storage of pesticide for agricultural land use.</p> <p>Hazardous building materials (i.e., asbestos and lead) located in and on soil around former buildings and structures.</p> <p>Potentially asbestos containing material (ACM) observed during the site inspection and previous investigation.</p> <p>Uncontrolled fill materials imported to site, infilling of dams, and observations of changes to the ground surface.</p> <p>Use and/or storage of fuel associated with an aboveground storage tank (AST).</p> <p>Use and/or storage of per- and polyfluoroalkyl substances (PFAS) associated with the former operation of the hangar and helipad.</p>	<p>TRH, BTEXN, PAH, VOC, Phenols, PCB, PFAS, heavy metals, and OCP/OPP</p>	<p>Direct contact and/or incidental ingestion of contaminated soils.</p> <p>Inhalation of contaminated soils and/or dust during soil disturbance works.</p>	<p>Existing and future site users</p>	<p>Unlikely: All soil samples collected and analysed in this investigation were below the adopted human-health assessment criteria – low density residential (HIL A) and suggests that overall potential for contamination impacts in soil to represent a material constraint to redevelopment for low density residential use is low.</p>
	<p>Asbestos</p>		<p>Possible: Asbestos was not detected in soil during this investigation; however, during site investigation a large waste stockpile, and a potential asbestos containing material (PACM) fragment (ACM_1) ~100 mm x 200 mm was observed in Lot 1 (presented on Figure 3, Appendix A). Previous investigation (Envirowest Consulting, 2023), made observations of PACM across Lot 1, that was confirmed by GHD’s environmental scientist (a licenced asbestos assessor) during this investigation. The ASC NEPM (2013) states that while isolated fragments are usually of low concern, any surface material may present a risk of exposure over time from decay through corrosive weathering or abrasion from site traffic that suggests management of the surface material is required prior to construction activity on site.</p>	
	<p>TRH, BTEXN, PAH, VOC, Phenols, PCB, PFAS, heavy metals, and OCP/OPP</p>		<p>Terrestrial ecological receptors in on-site soils</p>	<p>Unlikely: A concentration of nickel (exceeded site-specific ecological criteria for urban residential public open space in surface soil (TP11_0 – 0.2) located adjacent the hangar building and former AST. Sampling during this investigation is considered to have provided adequate coverage to assess the site’s general condition. The nickel concentration reported is below 2.5 times the site-specific EIL (150 mg/kg), this exceedance is considered localised and is located within a moderately disturbed area (adjacent the hangar building).</p>

Potential source	COPC	Potential Pathways	Potential Receptors	SPR linkage complete?
		<p>Direct contact with contaminated groundwater and/or recreational use of surface water (i.e., on-site dams).</p>	<p>On- and off-site users of non-potable water</p>	<p>Unlikely: Groundwater SWL within the on-site groundwater bore is shallow (1.5 m bgl). PFOS concentrations detected in a shallow surface soil sample (PFAS_S1) and in a drainage line was reported above the LOR, however, below the adopted human health criteria. It is considered that risks to receptors are low, in particular, as the proposed residential development will incorporate a reticulated water supply. The PFAS contamination level is considered low and represents a low risk; however, there is a data gap given baseline conditions in terms of groundwater and surface water have not been assessed.</p> <p>In consideration of the above, if groundwater and/or surface water future use on-site are to be utilised in the future for irrigation of public open space further screening of water quality may be warranted.</p>

9. Conclusions

9.1 Context

The overarching objective of this preliminary site investigation (PSI) is to assist Landcom identify potential contamination issues that may be present based on the current and historical use of the site. More specifically, the objectives to be achieved by this investigation are:

- Review the current and historical site uses and assess the likelihood for contamination to exist from past or present activities for the purpose of the proposed rezoning of the site from rural to residential.
- Identify contamination and/or potential contamination that may require remediation.
- Provide recommendations for further investigation and/or contamination management in relation to the proposed development (if applicable), including identifying possible remediation methods to make the land suitable for the intended purpose.
- Comment on the suitability of the land for the proposed zoning and identify risks and constraints in relation to the proposed zoning.

9.2 Outcomes

GHD conducted a preliminary site investigation that included a desktop review and site inspection to assess current and historical land use, collection of soil samples from within the site boundary (Lot 1, Lot 6, and Lot 200), and analysed for the COPC (refer Section 1.3). The following key findings were made in relation to the project objectives:

- Nickel concentration that exceeded the ecological assessment criterion was localised to one location within Lot 6 (adjacent to the concrete AST bund and hangar building).
- Total recoverable hydrocarbons (TRHs) within two locations (TP03 and TP08) were below the adopted human-health and ecological assessment criteria within Lot 1.
- Low levels of organochloride pesticides (OCP) (between 0.09 to 1.11 mg/kg) within several locations in shallow soils (0 – 0.5 m bgl) within Lot 1 (TP01, TP02, TP04, TP08, and TP09) and one location within Lot 6 (TP13) below the adopted human-health and ecological assessment criteria.
- PFOS (0.0003 mg/kg) concentrations in surface sample PFAS_S1 taken from the drainage line located within Lot 6 was below the adopted human-health and ecological assessment criteria.
- Various metals (arsenic, chromium (III+VI), copper, lead, nickel, and zinc) were reported within an order of magnitude below the adopted assessment criteria in the majority of soil samples.
- Potential asbestos containing material observed during previous investigation, was observed during the current investigation in Lot 1, with GHD field staff experienced and licenced for the identification of asbestos, collecting a cement pipe fragment visually assessed as asbestos containing material.
- Asbestos was not identified in soils sampled and analysed for the presence of asbestos.

The data collected during this investigation suggests that the overall potential for contamination impacts in soil to represent a material constraint to redevelopment for low density residential use is low. An identified constraint in relation to the proposed rezoning of the site from rural to residential is the potential for exposure to asbestos contamination during future construction and development works. It is recommended that asbestos should be managed with further investigation (quantitative analysis) of soils containing potential asbestos containing fragments based on information detailed within this report, that includes removal of waste stockpiles and associated material, hand picking of surface material followed by validation and clearance from a licenced asbestos assessor. Appropriate occupational health and safety (OH&S) protocols during construction should also be adopted, including management of any unexpected finds.

Further, the area around the helipad, and associated hangar building, was assessed for PFAS in soil at investigation locations TP11, TP12, and PFAS_S1. Measured PFAS concentrations were below adopted assessment criteria for low density residential and ecological (direct/indirect) exposure. This should not preclude the hangar area from being rezoned to R1 'General Residential' and/or RE1 'Public Recreation' given there was no evidence to suggest that PFAS within this area is present at concentrations of concern for the protection of human and ecological health; however, investigation within the hangar itself was not part of the scope of work. Should there be any future changes to the existing infrastructure (i.e., hangar building, helipad, and hardstand area) within Lot 6 further site investigation is warranted.

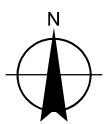
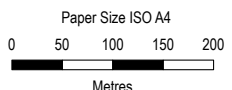
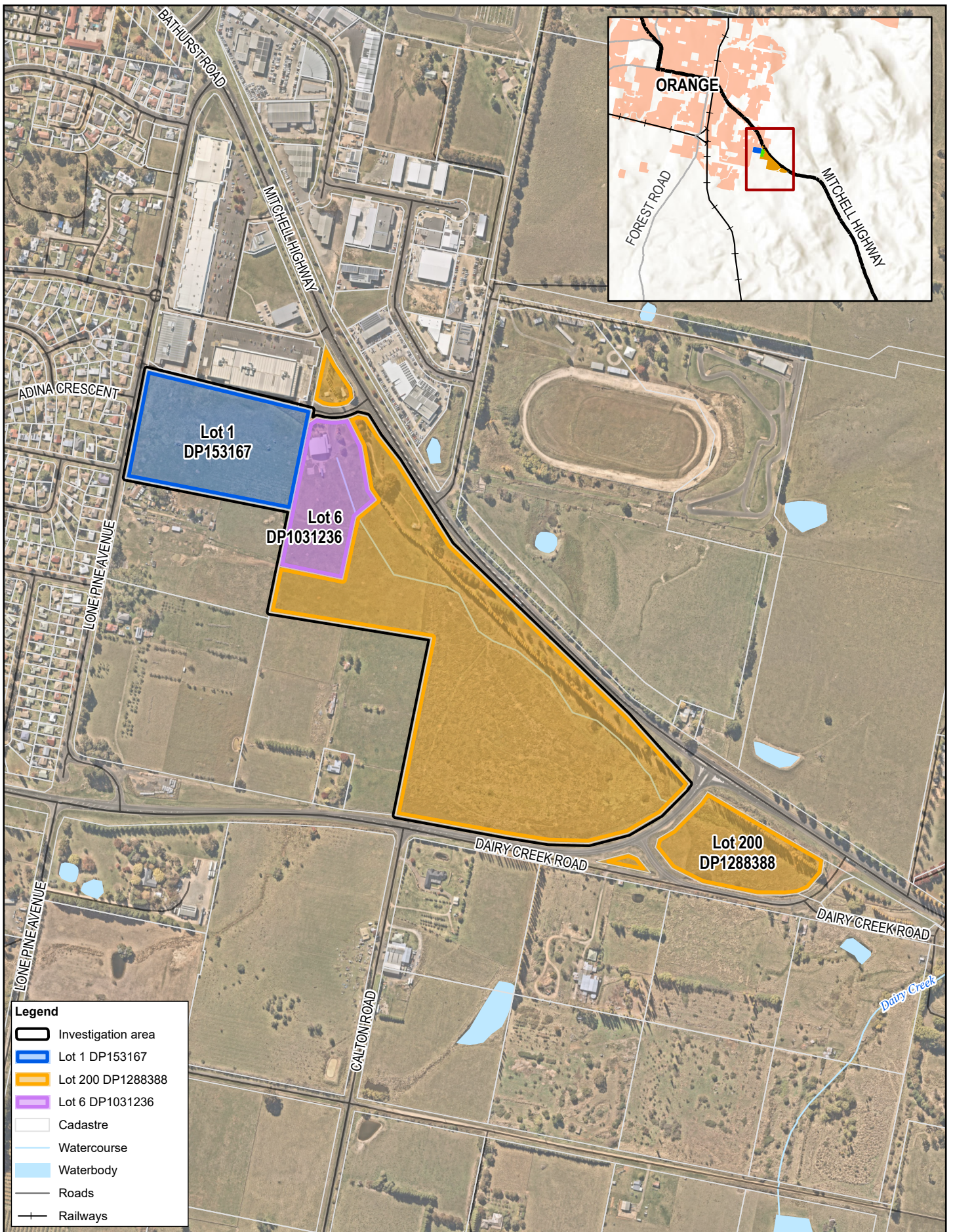
10. References

- CRC CARE. (2011). *Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater. Part 2: Application document, CRC Technical Report No 10*. Adelaide: Friebel, E; Nadebaum, P.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW.gov.au). (2022, June 30). Chromium (III) compounds - Fact Sheet.
- Envirowest Consulting. (2023). *Preliminary contamination investigation*. Orange.
- eSPADE Interactive Database. (2024, February). NSW Department of Planning and Environment.
- GHD. (2024). *Geotechnical & Environmental Consultant - Redmond Place, Orange NSW*.
- HEPA. (2020). *PFAS National Environmental Management Plan (NEMP), Version 2.0*. National Chemicals Working Group of the Heads of EPAs Australia and New Zealand.
- NEPC. (2013). *National Environmental Protection (Assessment of Site Contamination) Measure*. National Environment Protection Council.
- NSW EPA. (2020). *Consultants reporting on contaminated land*.
- NSW EPA. (2022). *Sampling design part 1 - application*. NSW EPA.
- NSW EPA. (2022). *Sampling design part 2 - interpretation*. NSW EPA.
- Standards Australia. (2005). *Australia Standard AS 4482.1 - 2005: Guide to the investigation and sampling of sites with potentially contaminated soil - Part 1: Non-volatile and semi-volatile compounds*.
- Western Australia Department of Health. (2009). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*.
- Western Australia Department of Health. (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia*.

Appendices

Appendix A

Figures



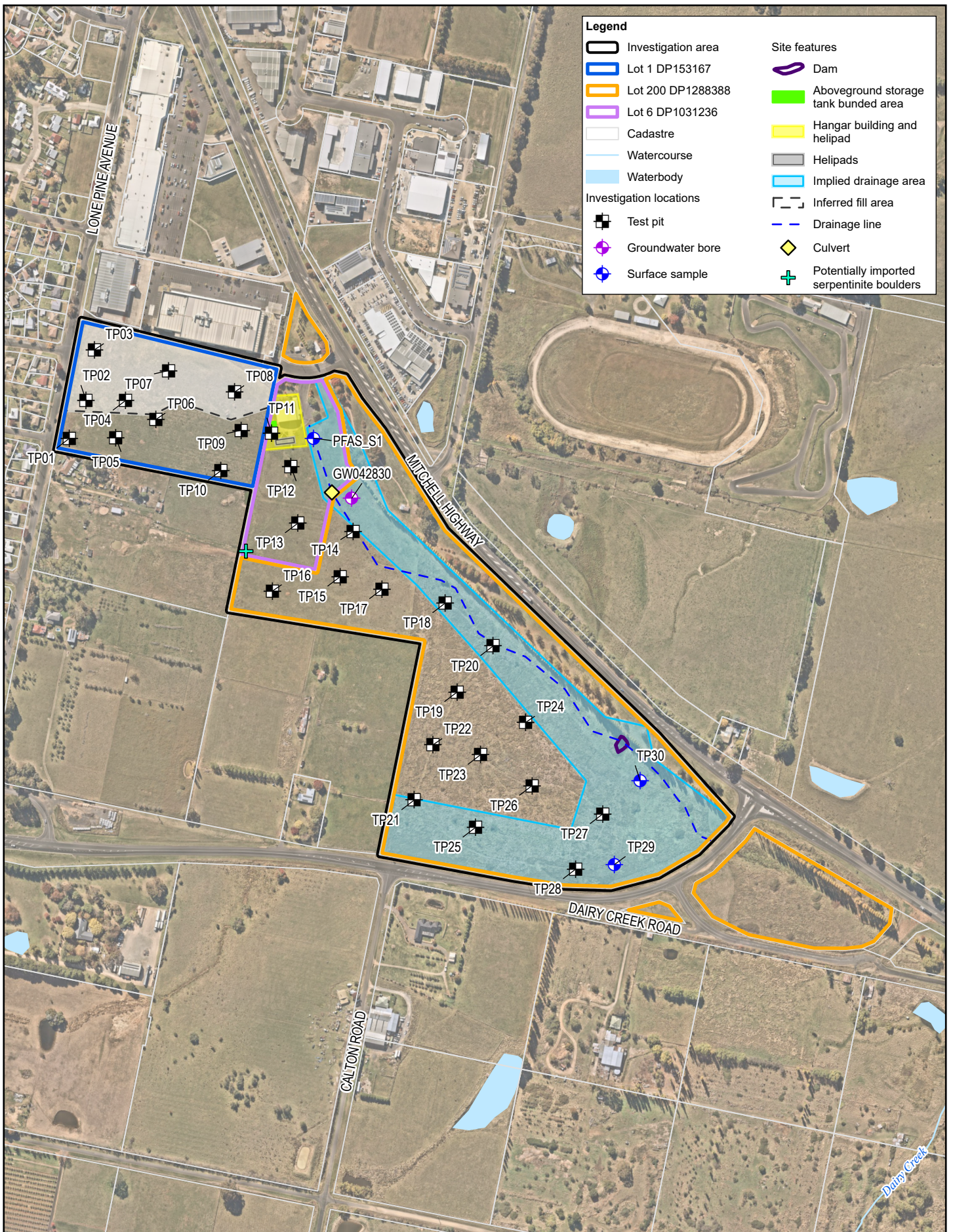
Landcom
Preliminary Site Investigation

Project No. 12627900
Revision No. 0
Date 14/03/2024

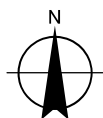
Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 55

Overall site layout

FIGURE 1



Paper Size ISO A4
 0 25 50 75 100
 Metres



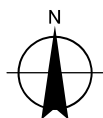
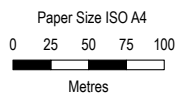
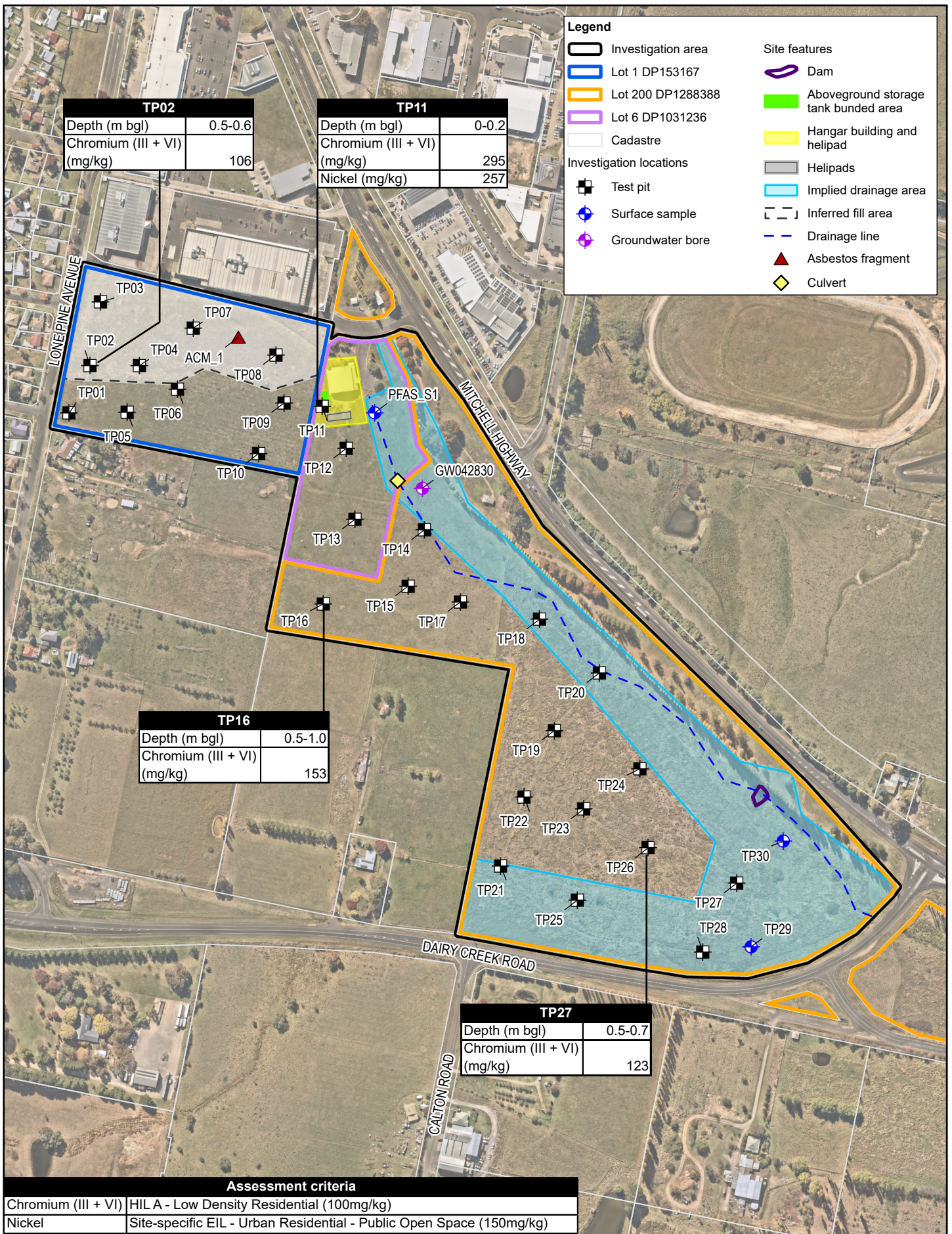
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 Horizontal Datum: GDA2020
 Grid: GDA2020 MGA Zone 55

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Investigation locations

FIGURE 2



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Preliminary Site Investigation

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Revision No. 0
Date 10/05/2024

Soil exceedances

FIGURE 3

Appendix B

Data quality objectives and indicators

B-1 Data quality objectives

Data quality objectives (DQOs) were established for this investigation to assist in the design and implementation of data collection activities, such that the type, quantity, and quality of data obtained addresses the project objectives. The DQO process described in Schedule B2 of ASC NEPM was adopted for this project and involves seven steps, as summarised in Table B.1 below.

Table B.1 Data quality objectives

Step	Description
Step 1 State the problem to be resolved	Does contamination exist on the site from any past or present activities and if so, what risk does it pose to ecological and human health?
Step 2 Identify the decision/s to be made	To address the problem set out in Step 1, the following decisions were needed: <ul style="list-style-type: none"> – Do any soil samples exceed the adopted assessment criteria?
Step 3 Identify the inputs to the decision	To inform the decisions, the following information was considered necessary: <ul style="list-style-type: none"> – Collection and analysis of soil to provide a dataset upon which to base subsequent decisions. – Comparison of analytical data to applicable guidelines to evaluate the potential for contamination to adversely impact upon human health and environmental receptors. – Formulation of a conceptual site model (CSM) for the site. – Assessment of quality assurance and quality control data to determine the reliability of the data obtained. – Preparation of a report documenting the findings and recommendation of the investigation.
Step 4 Define the boundaries of the study	The lateral boundaries of the investigation area are as defined on Figure 1, Appendix A. The vertical boundary is defined as the maximum depth of the test pits (approximately 3.0 m bgl). The temporal extent of the investigation was from 28 February to 1 March 2024.
Step 5 Develop decision rule	Analytical data was compared to the criteria described in Section 5.2. If concentrations of contaminants are identified above the adopted investigation levels, and data is of acceptable quality, there may be potential risk to ecological and/or human health and further assessment and/or management may be required.
Step 6 Specify the tolerable limits on decision errors	Two types of decision errors are possible: <ul style="list-style-type: none"> – Sampling errors which occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the site, i.e., the samples collected are not representative of site conditions such that contamination is either missed or overstated. – Measurement errors, which occur during sample collection, handling preparation, analysis, and data reduction. <p>To minimise the potential for decision errors, data quality indicators (DQIs) are evaluated. The DQIs are based on those listed in Appendix C of the ASC NEPM and are further discussed below in Table B.2.</p>
Step 7 Optimising the design for obtaining the data	The sample design was optimised through targeted sampling locations on the potential sources of contamination identified in the site inspection on 20 January 2024 and the previous site investigation (Envirowest 2023).

B-2 Data quality indicators

The potential for decision errors, data quality indicators (DQIs) are evaluated as part of the DQO. The DQIs for sample collection and laboratory analysis are provided in Table B.2 below.

Table B.2 Data quality indicators

Data Quality Indicator	Description
Data Representativeness	Expresses the degree to which sample data accurately and precisely represents a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples in an appropriate pattern across the site, and by using an adequate number of sample locations to characterise the site. Consistent and repeatable sampling techniques and methods are utilised throughout the sampling.
Completeness	Defined as a percentage of measurements made, which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study. If there is insufficient valid data, the n additional data are required to be collected. Additionally, appropriate laboratory limit of reporting (LOR) for the laboratory analysis are required.
Comparability	A qualitative parameter, expressing the confidence with which one dataset can be compared with the other. This is achieved through maintaining a level of consistency in techniques used to collect samples and checking that analysing laboratories use consistent techniques and reporting methods.
Precision	<p>Measures the reproducibility of measurements under a given set of conditions. The precision of the data is assessed by calculating the relative percent difference (RPD) between duplicate sample pairs.</p> <p>Nominal acceptance criterion will be adopted for the assessment including:</p> <ul style="list-style-type: none"> – ± 30% RPD for inter-laboratory and intra-laboratory duplicates for inorganic analytes. – ± 50% RPD for inter-laboratory and intra-laboratory duplicates for organic compounds (when contaminants concentrations are more than ten times the LOR). <p>However, it is noted that this will not always be achieved, particularly in heterogeneous soil or fill materials, or at low analyte concentrations (less than 10 times the adopted criteria).</p>
Accuracy	<p>Evaluates the bias in a measurement system. Accuracy can be undermined by such factors as field contamination of samples, poor preservation of samples, poor sample preparation techniques and poor selection of analytical techniques by the analysing laboratory. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes, laboratory blanks and analyses against reference standards. The nominal “acceptance limits” on laboratory control samples are defined as follows:</p> <ul style="list-style-type: none"> – Laboratory spikes – 70-130% recovery for metals / inorganic analytes and 60-140% for organic compounds. – Laboratory duplicates – If contaminant concentration is less than 10 times the LOR: no RPD limit. If concentration 10 to 20 times the LOR: 0% to 50% RPD. If greater than 20 times the LOR: 0% to 20% RPD. – Laboratory surrogates (Organic compounds only) – 60 - 140% recovery. – Laboratory blanks - <LOR.

Appendix C

Analytical results

Appendix C
Table C1
Summary of Analytical Results

Table with columns for Asbestos (Fibres, Organic Fibre, Synthetic Mineral Fibre) and Metals (Arsenic, Cadmium, Chromium (III+VI), Chromium (Hexavalent), Chromium (Trivalent), Copper, Iron, Lead, Mercury, Nickel, Zinc). Rows include NEPM 2013 Table 1A(1) HIL A Res, NEPM 2013 Table 1A(3) HSL A/B Res Soil for Vapour Intrusion, Clay >=0m, <1m, CRC CARE 2011 Soil Direct Contact Intrusive Works, NEPM 2013 EIL-Urban Residential- Public Open Space, NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m, PFAS NEMP 2.0 2020 Residential with garden/accessible soil (HIL A), PFAS NEMP 2.0 2020 Ecological direct exposure, PFAS NEMP 2.0 2020 Ecological indirect exposure.

Main data table with columns: Location Code, Date, Field ID, Depth, Lab Report Number, and 16 columns for various analytes (Asbestos and Metals). Rows are grouped by Lot (Lot 1, Lot 6, Lot 200) and include field IDs like TP01, TP02, etc., with corresponding analytical results.

Statistics table with rows for: Number of Results, Number of Detects, Minimum Concentration, Minimum Detect, Maximum Concentration, Maximum Detect, Average Concentration, Geometric Average, Median Concentration, Standard Deviation, Geometric Standard Deviation, 95% UCL (Student's-t), % of Detects, % of Non-Detects. Includes a note: * A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 If the concentration of PFHxS > PFOS this guideline value needs to be adjusted accordingly. Please refer to Section 8.5.2.1 of the PFA
#2 Developed site specific EIL based on CEC, pH, clay content, state and traffic volume
#3 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate
#4 In the absence of a guideline value for total chromium, chromium VI value adopted
#5 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-spe
#6 Elemental mercury: HIL does not address elemental mercury. A site specific assessment should be considered if elemental mercury is
#7 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (6
#8 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (ref to BaP of Schedule 7) BaP TEQ calc by multiplying the conc of each
#9 PCBs: HIL refers to non-dioxin like PCBs only. Where PCB source is known, or suspected at a site, a site-specific assessment of expos
#10 Not limiting: Derived soil HSL exceeds soil saturation concentration
#11 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#12 To obtain F2 subtract naphthalene from the >C10 - C16 fraction.
#13 Errata 30 April 2014 - Naphthalene should not be subtracted from >C10-C16 (as there is no separate ESL for naphthalene)
#14 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions to
#15 Reported Analyte LOR is higher than Requested Analyte LOR
#16 No

Environmental Standards
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Ecological direct exposure
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Ecological indirect exposure
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Public open space (HIL C)
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Residential with garden/accessible soil (HIL A)

Appendix C Table C1 Summary of Analytical Results

Table with columns for OC Pesticides, Location Code, Date, Field ID, Depth, Lab Report Number, and various chemical concentrations (mg/kg, mg/kg, μg/kg) for 16 different pesticides. Includes summary statistics at the bottom.

Comments
#1 If the concentration of PFTxS > PFOS this guideline value needs to be adjusted accordingly.
#2 Developed site specific EIL based on CEC, pH, clay content, state and traffic volume
#3 Arsenic: HIL assumes 70% oral bioavailability.
#4 In the absence of a guideline value for total chromium, chromium VI value adopted
#5 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D) on adult lead model for where 50% bioavailability considered.
#6 Elemental mercury: HIL does not address elemental mercury, a site specific assessment should be considered if elemental mercury is present.
#7 Total PAHs: Based on sum of 16 most common reported (WHO 99).
#8 Carcinogenic PAHs: HIL based on 8 carcinogenic PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEF calc by multiplying the conc of each.
#9 PCBs: HIL refers to non-dioxin like PCBs only.
#10 Not limiting: Derived soil HSL exceeds soil saturation concentration
#11 To obtain F1 subtract the sum of BTEX concentrations from the C6 - C10 fraction.
#12 To obtain F2 subtract naphthalene from the >C10 - C16 fraction.
#13 Errata 30 April 2014 - Naphthalene should not be subtracted from >C10-C16 (as there is no separate ESL for naphthalene)
#14 Separate management limits for BTEX & naphthalene are not available hence should not be subtracted from the relevant fractions.
#15 Reported Analyte LOR is higher than Requested Analyte LOR
#16 No

Environmental Standards

HEPA, Jan 2020, PFAS NEMP 2.0 2020 Ecological direct exposure
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Ecological indirect exposure
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Public open space (HIL C)
HEPA, Jan 2020, PFAS NEMP 2.0 2020 Residential with garden/accessible soil (HIL A)



**Appendix C
Table C1
Summary of Analytical Results**

				VOCs																					
				1,1-dichloroethane	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2-dibromoethane	1,3-dichlorobenzene	2-butanone (MEK)	4-methyl-2-pentanone (MIBK)	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroethane	cis-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	Dibromomethane	Iodomethane	Pentachloroethane	Trichloroethene	Tetrachloroethene	trans-1,3-dichloropropene	trans-1,2-dichloroethane		
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQI				0.5	0.5																				
NEPM 2013 Table 1A(1) HIL A Res																									
NEPM 2013 Table 1A(3) HSL A/B Res Soil for Vapour Intrusion, Clay >=0m, <1m																									
CRC CARE 2011 Soil Direct Contact Intrusive Works																									
NEPM 2013 EIL-Urban Residential- Public Open Space																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m																									
PFAS NEMP 2.0 2020 Residential with garden/accessible soil (HIL A)																									
PFAS NEMP 2.0 2020 Ecological direct exposure																									
PFAS NEMP 2.0 2020 Ecological indirect exposure																									

Location Code	Date	Field ID	Depth	Lab Report Number	1,1-dichloroethane	1,2,3-trichlorobenzene	1,2,3-trichloropropane	1,2-dibromoethane	1,3-dichlorobenzene	2-butanone (MEK)	4-methyl-2-pentanone (MIBK)	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroethane	cis-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	Dibromomethane	Iodomethane	Pentachloroethane	Trichloroethene	Tetrachloroethene	trans-1,3-dichloropropene	trans-1,2-dichloroethane
Lot 1																								
TP01	28 Feb 2024	TP01 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP01 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP01 0.5 - 1.0	0.5 - 1.0	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	28 Feb 2024	TP02 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP02 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP02 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	28 Feb 2024	TP03 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP03 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP03 1.0 - 1.2	1 - 1.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD1	1 - 1.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD2	1 - 1.2	1076795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP03 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	28 Feb 2024	TP04 0 - 0.2	0 - 0.2	ES2407624	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	05 Mar 2024	TP04 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD3	0 - 0.2	ES2407624	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	28 Feb 2024	TP04 0.5 - 0.6	0.5 - 0.6	ES2407624	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	05 Mar 2024	TP04 0.5-0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP05 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP05 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP05 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP05 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	28 Feb 2024	TP06 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP06 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP06 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP06 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	28 Feb 2024	TP07 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP07 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP07 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	28 Feb 2024	TP08 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP08 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD4	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD5	0 - 0.2	1076795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP08 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP08 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP08 2.0 - 2.2	2 - 2.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	28 Feb 2024	TP09 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP09 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP09 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP09 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	28 Feb 2024	TP10 0 - 0.2	0 - 0.2	ES2407624	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	05 Mar 2024	TP10 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP10 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP10 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP10 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lot 6																								
PFAS S1	29 Feb 2024	PFAS S1	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	29 Feb 2024	TP11 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP11 0.0 - 0.2	0 - 0.2	ES2407624	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	29 Feb 2024	TP11 0.5 - 1.0	0.5 - 1.0	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP11 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	29 Feb 2024	TP12 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP12 0.0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	PFAS_FD1	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	PFAS_FD2	0 - 0.2	1076795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP12 0.5 - 1.0	0.5 - 1.0	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP12 0.5 - 1.0	0.5 - 1.0	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	29 Feb 2024	TP13 0 - 0.2	0																					

Appendix C
Table C1
Summary of Analytical Results

	mg/kg	mg/kg	PFAS - Perfluoroalkyl Sulfonic Acids			PFAS - Perfluoroalkyl Carboxylic Acids					PFAS - Fluorotelomer Sulfonic Acids				PFAS - Sums		
			trans-1,4-Dichloro-2-butene	Trichloroethene	Perfluorobutane sulfonic acid (PFBS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPA)	Perfluorohexanoic acid (PFHxA)	Perfluorooctanoic acid (PFOA)	Perfluoropentanoic acid (PFPeA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	PFAS (Sum of Total)(WA DER List)
EQL	0.5	5	0.0002	0.0002	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
NEPM 2013 Table 1A(1) HIL A Res																	
NEPM 2013 Table 1A(3) HSL A/B Res Soil for Vapour Intrusion, Clay >=0m, <1m																	
CRC CARE 2011 Soil Direct Contact Intrusive Works																	
NEPM 2013 EIL-Urban Residential- Public Open Space																	
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil >=0m, <2m																	
PFAS NEMP 2.0 2020 Residential with garden/accessible soil (HIL A)				0.01	0.01					0.1							0.01 [†]
PFAS NEMP 2.0 2020 Ecological direct exposure				1						10							
PFAS NEMP 2.0 2020 Ecological indirect exposure				0.01													

Location Code	Date	Field ID	Depth	Lab Report Number	trans-1,4-Dichloro-2-butene	Trichloroethene	PFBS	PFOS	PFHxS	PFBA	PFPA	PFHxA	PFOA	PFPeA	10:2 FTS	4:2 FTS	6:2 FTS	8:2 FTS	PFAS (Sum of Total)(WA DER List)	Sum of PFHxS and PFOS
Lot 1																				
TP01	28 Feb 2024	TP01 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP01 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP01 0.5 - 1.0	0.5 - 1	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP02	28 Feb 2024	TP02 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP02 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP02 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP03	28 Feb 2024	TP03 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP03 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP03 1.0 - 1.2	1 - 1.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04	28 Feb 2024	FD1	1 - 1.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD2	1 - 1.2	1076795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP04 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP05	28 Feb 2024	TP04 0 - 0.2	0 - 0.2	ES2407624	<0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP04 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD3	0 - 0.2	ES2407624	<0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06	28 Feb 2024	TP04 0.5 - 0.6	0.5 - 0.6	ES2407624	<0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP04 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP05 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07	05 Mar 2024	TP05 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP05 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP05 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP08	28 Feb 2024	TP06 0 - 0.1	0 - 0.1	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP06 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP06 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP09	05 Mar 2024	TP06 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP07 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP07 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	28 Feb 2024	TP07 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP07 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP08 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	28 Feb 2024	FD4	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	FD5	0 - 0.2	1076795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP08 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	28 Feb 2024	TP08 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP08 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP08 2.0 - 2.2	2 - 2.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	28 Feb 2024	TP09 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP09 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP09 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14	05 Mar 2024	TP09 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP10 0 - 0.2	0 - 0.2	ES2407624	<0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP10 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	05 Mar 2024	TP10 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 Feb 2024	TP10 0.5 - 0.6	0.5 - 0.6	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP10 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lot 200																				
TP16	29 Feb 2024	TP14 0 - 0.5	0 - 0.5	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP14 0.5 - 1.0	0.5 - 1	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP14 0.5 - 1.0	0.5 - 1	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	29 Feb 2024	TP15 0 - 0.5	0 - 0.5	ES2407624	<0.5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP15 0.5 - 1.0	0.5 - 1	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP15 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18	29 Feb 2024	TP16 0 - 0.5	0 - 0.5	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP16 0.5 - 1.0	0.5 - 1	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP16 1.0 - 1.5	1 - 1.5	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19	28 Feb 2024	TP17 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP17 2.5 - 2.8	2.5 - 2.8	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP17 0 - 0.2	0 - 0.2	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20	29 Feb 2024	TP17 0.5 - 1.0	0.5 - 1	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP18 0 - 0.2	0 - 0.2	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	05 Mar 2024	TP18 0.5 - 0.6	0.5 - 0.6	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21	05 Mar 2024	TP19 0.5 - 0.75	0.5 - 0.75	EN2401999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP20 0 - 1	0 - 1	ES2407624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29 Feb 2024	TP20 0.5 - 0.6																		

Appendix D

Investigation methodology

D-1 Investigation methodology

The investigation methodology provides details of the sampling and analysis program developed to address the objectives and the scope of works for the investigation. A team of suitable qualified soil sampling methodology utilised during the fieldworks are discussed below in Table D.1.

Table D.1 Field methodology summary

Item	Description
Work safety	<p>GHD developed a site-specific health, safety, and environment (HSE) plan for the sampling investigation as part of the overall commitment to provide a healthy and safe working environment for field staff and subcontractors. All work employed used of protective protection equipment (PPE) in accordance with GHD HSE requirements.</p> <p>The HSE plan included a job safety and environmental analysis, detailing the step-by-step procedures of all aspects of the works and associated hazards and control measures to be implemented. The HSE plan was read and signed by all GHD personnel, client and subcontractors and feedback and discussion provided prior to works commencing.</p> <p>Service clearance was undertaken by a professional underground service locator to reduce the risk of intersecting subsurface services during planned intrusive works, referencing Dial Before You Dig plans.</p>
Technical guideline	<p>Australian Standard AS 4482.1-2005 <i>Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds</i> (Standards Australia, 2005).</p>
Soil logging and sampling	<p>28 test pit locations were established across the site during this investigation to a maximum of 3 m bgl, and three surface samples (0 – 0.2 m bgl) were opportunistically collected.</p> <p>The soil profiles observed during the works were logged. Lithology, changes in colour or texture, evidence of fill, odours and sample intervals were recorded. Clean, laboratory supplied glass jars were filled to the brim and immediately sealed with Teflon lined caps to reduce the potential loss of volatile contaminants. Samples were then labelled and placed directly into cooler boxes.</p> <p>Sub-samples were collected and placed in zip-lock bags for asbestos (presence/absence) analysis and assessed using a Photo check Tiger photoionisation detector (PID) fitted with a 10.6 eV lamp. A copy of the instrument's calibration certificate is included in Appendix G. This instrument allows rapid, semi-qualitative analysis of ionisable VOCs in soil. PID screening results are included in Appendix G and described in section 0.</p>
Decontamination	<p>Disposable nitrile gloves were utilised and replaced for each new sample during the fieldworks. Prior to the collection of each sample, all non-disposable sampling equipment underwent decontamination.</p>
Sampling handling and transport	<p>Following collection of soil samples were immediately stored in a cool dark environment (esky), iced, and forwarded to the analytical laboratory within the specified holding time along with a chain-of-custody (COC) form. Laboratory documents are provided in Appendix I.</p>
Quality assurance and quality control (QA/QC)	<p>A site based QAQC sampling procedure was implemented with further details described in Appendix J.</p>

Appendix E

Envirowest (2023) Appendices

Appendix 1. Dangerous chemicals search results

Security Classification: Sensitive Personal

Please do not amend the subject line of this email

Dear Leah

Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found.

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW on 21/06/2023 for the following sites:
154 Lone Pine Ave - Lot 1 DP153167 - 3 Redmond Place - Lot 6 DP1031236 - 5255 Mitchell Highway Lot 200 DP1288388 Orange NSW 2800.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: **00854094**.

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards

Mo Lotonuu

SafeWork NSW | Better Regulation Division

Department of Customer Service

p- 13 10 50

e- licensing@safework.nsw.gov.au | www.customerservice.nsw.gov.au

Level 3, 32 Mann Street, Gosford, NSW 2250



We are always looking for ways that we can improve our services. You may be contacted by email in the next few weeks to complete a short survey and provide us with your feedback on what we did well and where we can improve. If you do not wish to participate in our surveys, please email us at: licensingQA@customerservice.nsw.gov.au and we will ensure that you are not contacted.

Envirowest Consulting Pty Ltd R15854c

Appendix 2. Historical aerial images



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.1. Aerial image (1954)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.2. Aerial image (1974)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.3. Aerial image (1984)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.4. Aerial image (1989)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW

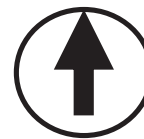


Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Approximate scale 1: 6,900



Legend

— Approximate site boundary

Appendix 2.5. Aerial image (1993)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.6. Aerial image (1998)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Image © 2023 Maxar Technologies

Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.7. Aerial image (2003)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.8. Aerial image (2010)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.9. Aerial image (2012)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.10. Aerial image (2013)

Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388
Redmond Place, Orange NSW



Envirowest Consulting Pty Ltd

Job: R15854c

Drawn by: LD

Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.11. Aerial image (Jan 2016)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.12. Aerial image (June 2016)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.13. Aerial image (Apr 2017)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.14. Aerial image (July 2017)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



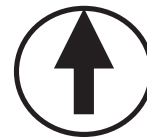
Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.15. Aerial image (Mar 2018)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



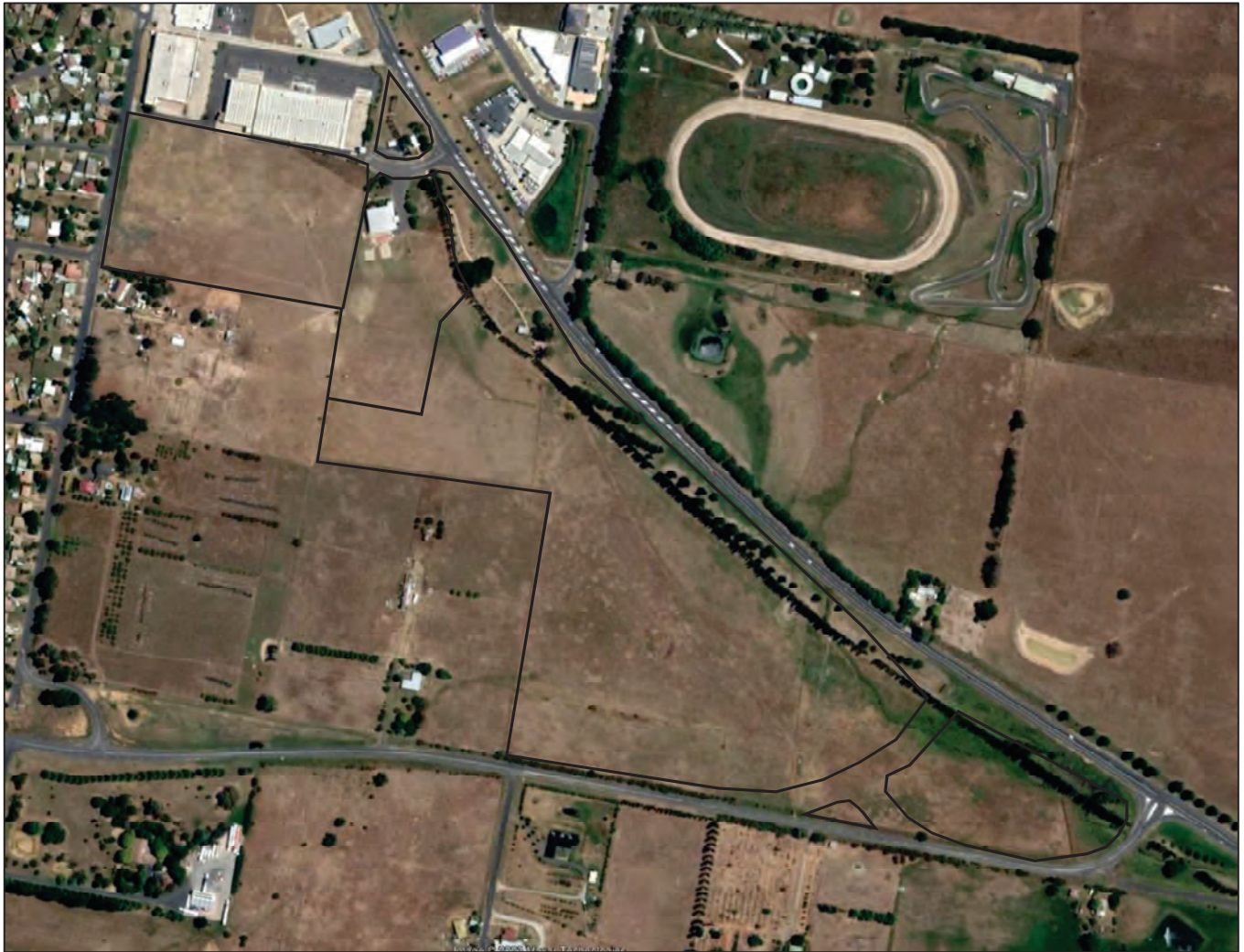
Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.16. Aerial image (Nov 2018)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.17. Aerial image (Jan 2019)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.18. Aerial image (June 2019)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.19. Aerial image (Feb 2020)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.20. Aerial image (May 2020)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



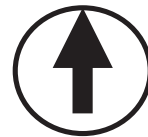
Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.21. Aerial image (Aug 2020)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.22. Aerial image (Feb 2021)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.23. Aerial image (July 2021)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.24. Aerial image (Dec 2021)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



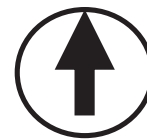
Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.25. Aerial image (Apr 2022)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.26. Aerial image (Sep 2022)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023



Legend

— Approximate site boundary

Approximate scale 1: 6,900



Appendix 2.27. Aerial image (Feb 2023)		
Lot 1 DP153167, Lot 6 DP1031236 and Lot 200 DP1288388 Redmond Place, Orange NSW		
	Envirowest Consulting Pty Ltd	
Job: R15854c	Drawn by: LD	Date: 28/6/2023

Appendix F

Photographic log

F1 Photographic Log



Photo 1 Waste stockpile within Lot 1 facing east (30 January 2024)



Photo 2 Waste stockpile within Lot 1 facing north (30 January 2024)



Photo 3 Western boundary of Lot 1 facing south (30 January 2024)



Photo 4 Northern boundary of Lot 1 facing east (30 January 2024)



Photo 5 *Fill surface northwestern portion of Lot facing north (30 January 2024)*



Photo 6 *Fill surface in northern portion of Lot 1 facing south (30 January 2024)*



Photo 7 *Potential asbestos containing material (cement pipe) Lot 1 (30 January 2024)*



Photo 8 *Mafic boulders in the northeastern portion of Lot 1 facing east (30 January 2024)*



Photo 9 *Northeastern corner of Lot 1 facing east (30 January 2024)*



Photo 10 *Southeastern corner of Lot 1 facing south (30 January 2024)*



Photo 11 Hangar building facing north in Lot 6 (30 January 2024)



Photo 12 Former AST bund facing west (30 January 2024)



Photo 13 Former AST bund with broken cement sheeting (30 January 2024)



Photo 14 Stormwater drain within Lot 6 adjacent Lot 1 (30 January 2024)

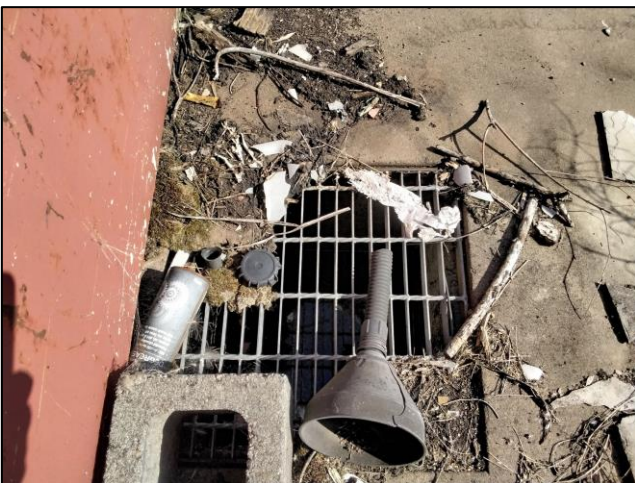


Photo 15 Oily water within AST bund within sump (30 January 2024)



Photo 16 Sump within AST bund facing east (30 January 2024)



Photo 17 *AST bund within Lot 6 facing south (30 January 2024)*



Photo 18 *Helipad and storage containers within Lot 6 facing southeast (30 January 2024)*



Photo 19 *Former hydrant infrastructure within Lot 6 facing northeast (30 January 2024)*



Photo 20 *Entry gates to helipad area facing north (30 January 2024)*



Photo 21 *Surface water drainage line within Lot 6 facing southeast (30 January 2024)*



Photo 22 *Shipping containers and an empty intermediate bulk container (IBC) on hardstand (30 January 2024)*



Photo 23 Stormwater drain (dry) within access road within Lot 6 (30 January 2024)



Photo 24 Culvert to the northeast within Lot 6 (30 January 2024)



Photo 25 Culvert beneath the Southern Feeder Road within the southeastern corner of Lot 200



Photo 26 Culvert in Lot 200 facing southwest (30 January 2024)



Photo 27 Eastern boundary of Lot 200 facing north (30 January 2024)



Photo 28 Eastern boundary of Lot 200 facing west (30 January 2024)



Photo 29 Eastern boundary of Lot 200 facing north (30 January 2024)



Photo 30 Southern Feeder Road showing drainage line adjacent southern boundary of Lot 200 (30 January 2024)



Photo 31 Drainage along the southern boundary of Lot 200 restricting vehicle access (30 January 2024)



Photo 32 Boulder in southwestern corner of Lot 6 potentially serpentinite (5 March 2024)



Photo 33 *Potential asbestos containing material (concrete pipe fragment (ACM_1) in northern portion of Lot 1 (28 February 2024)*

Appendix G

Field records and calibration certificates

1



Daily Field Record

Client: <u>Landcom.</u>		Date: <u>30/1/24.</u>
Job No. / Name: <u>12627900.</u>		Arrival Time: <u>15:55 pm.</u>
GHD Representative:	<u>Skye Holloman.</u>	Departure Time: <u>18:15 pm.</u>
Contact Office on Arrival:	<u>Rachel Keys.</u>	Contact Office on Completion: <input checked="" type="checkbox"/>
Weather Conditions: <u>Fine, humid.</u>		
Works Being Undertaken:	<u>Site Walkover.</u>	
Personnel/Contractor(s) Present (List all); Inducted into GHD H&SP?		Inducted
<u>Skye Holloman.</u>		<input checked="" type="checkbox"/>
		Arrival Time
		<u>15:55</u>
		Departure Time
		<u>18:15</u>
Photographs Taken:		If Yes, list below or attach photo register.
<u>Yes.</u>		<u>Photolog Completed.</u>
Location	Time	Description of works / notes
<u>Lot 1</u>		<u>Access through home Pine Avenue.</u>
<u>DP153167</u>		<u>Western boundary, surface of bare soil, gravels, crusher dust pile adjacent (photo) gated entrance. Patchy grass, vacant lot: Fenced, gated. (locks)</u>
		<u>Waste stockpile in western portion including, concrete paving, rusted wire, tyres, drainage pipe (pvc) potential asbestos fragment (photo), corrugated metal sheeting.</u>
		<u>Evidence of stock agistment, worn areas of soil.</u>
		<u>Northern portion consists of fill material compacted and rock evident embedded at the surface. Surface level higher topography with gradient dipping to the south and east.</u>
		<u>Surface water flow towards the east.</u>
		<u>Large igneous native boulders piled in north eastern portion of the site.</u>
Is a Notice of Proposed Variation, Variation Order or Site Instruction Required?		
Provide details:		
Further Inspection and/or Testing		



Daily Field Record

Client:		Date:	
Job No. / Name:		Arrival Time:	
GHD Representative:		Departure Time:	
Contact Office on Arrival:		Contact Office on Completion:	
Weather Conditions:			
Works Being Undertaken:			
Personnel/Contractor(s) Present (List all); Inducted into GHD H&SP?		Inducted	Arrival Time
Photographs Taken:		If Yes, list below or attach photo register.	
Yes.		Photolog.	
Location	Time	Description of works / notes	
Lot 6		Access through Redwood Place. Keys provided. Council	
DP1531		northern boundary. Gated. (locked!) fenced.	
DP1031236		adjacent helicopter hangar. patchy	
		Bitumen roadway / driveway, grass	
Span drain in front of hangar roller door		bitumen to the east of the driveway. Carpark area. driveway south of hangar with stormwater drains	
		Northern portion consists of hangar, AST-fuel bunded area, broken cement	
Stormwater drain with bunded area - oily water		Sheeting evident within bunded area, oil drum. Helicopter pad (helipad) adjacent two shipping containers	
		Culvert northeast corner of lot running south to a culvert on the eastern boundary.	
		Surface drainage evident south, south east.	
Fire hydrant infrastructure adjacent helipad.		Stormwater pit adjacent bunded area pvc daylighting pipe from lot 1. Vacant lot (fenced) in southern portion. evidence of stock agistment, worn grass; water troughs. Hangar storage area contained caravans,	
Is a Notice of Proposed Variation, Variation Order or Site Instruction Required?			
Provide details:			
Further Inspection and/or Testing			

Continued from page 1

2

Span drain in front of hangar roller door

Stormwater drain with bunded area - oily water

Fire hydrant infrastructure adjacent helipad.

Keys provided. Council

Carpark area. driveway south of hangar with stormwater drains

oil drum. Helicopter pad (helipad) adjacent two shipping containers

vacant lot (fenced) in southern portion. evidence of stock agistment, worn grass; water troughs.

Hangar storage area contained caravans,



Daily Field Record

Client:		Date:
Job No. / Name:		Arrival Time: 1:2
GHD Representative:		Departure Time:
Contact Office on Arrival:		Contact Office on Completion:
Weather Conditions:		
Works Being Undertaken:		

Continued From Page 1, 2

Personnel/Contractor(s) Present (List all); Inducted into GHD H&SP?	Inducted	Arrival Time	Departure Time

Photographs Taken:	Yes	If Yes, list below or attach photo register. photolog.
--------------------	-----	---

Location	Time	Description of works / notes
Lot 200		Lot 200 inaccessible with drainage line along Dairy Creek Rd Southern lot boundary.
DP128288		Free flowing water observed in drainage line flowing west to east (photo) from culverts along dairy Creek Rd.
		Vacant lot: fenced along western + eastern boundaries
		Long Grass (dry) made the lot inaccessible potential snake hazard, thigh to hip height.
		Eastern boundary (fenced), drainage lines observed exiting lot 200 flowing to the east. Inferred surface water flow to the south south east towards large drainage pipes beneath dairy Creek Rd (photo).

Is a Notice of Proposed Variation, Variation Order or Site Instruction Required?	
--	--

Provide details:	
Further Inspection and/or Testing	

Appendix H

Test Pit Logs

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP01

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 28/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition w < PL	Consistency / Density Index L- MD	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
		ES	0.30	[Pattern]	-	[TOPSOIL]: Clayey SILT: low plasticity, light brown, trace organic matter (rootlets).			0	18	0.00m, PP=6.0kPa PID=0.40ppm	
		ES		[Pattern]		Clayey SILT: light brown, trace fine to coarse grained sand (residual).	M	D		4	0.30m, PP=N/A PID=0.50ppm	
1	Nil	B	1.40	[Pattern]		From 0.90m, trace fine, angular to sub-angular gravel (ironstones).				5		
			1.50	[Pattern]	CL	1.20m, becoming light brown/ white, iron staining.				16		
						Silty CLAY: low plasticity, brown, with fine to coarse grained sand, fine to coarse, angular to sub-angular gravel, iron staining, weathered ironstone (extremely weathered rock).	w = PL	Vst - H		25	1.40m, PP=N/A	
						End of Test pit at 1.5 metres. Refusal on HW rock.				28		
2										17		
										20		
										23		
										End of probe at 1.40m		

Note: * indicates signatures on original issue of log or last revision of log

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

See standard sheets for details of abbreviations & basis of descriptions



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Job No.
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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP02

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 28/02/24 **Logged by:** SH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
		ES			-	[TOPSOIL]: Clayey SILT: low plasticity, light brown, trace organic matter (rootlets).	w < PL	VSt - H			22	0.00m, PID=0.60ppm
		ES	0.50		CL-CI	Silty CLAY: low to medium plasticity, brown/orange, trace fine to coarse, angular to sub-angular gravel (ironstones) (residual).	w = PL	VSt - H			18	0.50m, PID=0.70ppm
1	Nil	ES	1.00		CI	Gravelly CLAY: medium plasticity, fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, trace ironstones (extremely weathered rock).	w = PL	St - VSt			10	1.0m, PID=0.70ppm
		ES	1.50			End of Test pit at 1.5 metres. Refusal on HW rock.		VSt			5	1.50m, PID=0.50ppm
2											13	
3											20	

Note: * indicates signatures on original issue of log or last revision of log

End of probe at 1.70m

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP03

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 28/02/24 **Logged by:** MH/SH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
		ES+GEO			-	[FILL]: Silty CLAY: low plasticity, brown, with fine to coarse, sub-rounded to rounded gravel, trace fine to coarse grained sand, trace organic matter (rootlets).	w = PL	St			12	0.00m, PID=0.40ppm
		ES+GEO				0.75m, trace ironstones.		F - St			4	0.75m, PID=0.20ppm
1	Nil	ES+GEO FD1/FD2						F			2	1.25m, PID=0.30ppm
		ES+GEO	1.95		CI	Silty CLAY: medium plasticity, brown, with fine to sub-rounded ironstones, trace fine to coarse grained sand (residual grading to extremely weathered rock).	w = PL	St - VSt			4	2.00m, PP=1.00kPa
		ES+GEO	2.75			2.50m, iron staining with ironstone inclusions, with grey mottling.					20	2.50m, PP=1.00kPa
3						End of Test pit at 2.75 metres. Target Depth.						

Note: * indicates signatures on original issue of log or last revision of log

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

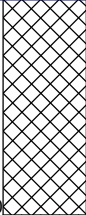
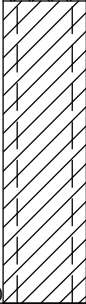
HOLE No. TP04

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 28/2/2024 **Logged by:** SH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations
		ES + FD3			-	[FILL]: Silty CLAY: low plasticity, light brown, well rounded, >40% cobbles (quartz), trace sub-rounded to rounded gravel, trace fine to coarse grained sand, rootlets.	w = PL	St	0.00m, PP=2.00kPa PID=0.40ppm
	Nil	ES	0.50		Cl	Silty CLAY: medium plasticity, orange/brown, with fine, sub-angular to sub-rounded gravel (ironstones), rootlets (residual grading to extremely weathered rock).	w = PL	St	0.50m, PP=1.00kPa PID=0.40ppm
1		ES	1.20			1.00m, weathered ironstone gravels, light brown, >50%, iron staining.	W	St - VSt	1.00m, PID=0.50ppm
						End of test pit at 1.2 metres Refusal on HW rock			

GEO. TEST PIT. AS1726.2017. 12627900 REDMAN PLACE, ORANGE. GPJ_GHD_GEO_TEMPLATE.2.00.GDT. 2/5/24

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TEST PIT LOG SHEET

Client:	Landcom	HOLE No. TP05
Project:	Geotechnical Investigation Report	
Location:	Redmond Place, Orange NSW	SHEET 1 OF 1
Position:	Refer to test location plan	Surface RL: N/A
Method of Exploration:	3.5T Excavator + Track	Hole Size: 0.3m x 2.0m
Date:	28/2/2024	Logged by: SH
		Processed: MAG
		Checked: JM
		Date: 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations <small>Note: * indicates signatures on original issue of log or last revision of log</small>
			ES	[TOPSOIL]: Silty CLAY: light brown, rootlets.	-		w < PL	St	0.00m, PP=N/A PID=0.20ppm
			ES	Silty CLAY: medium plasticity, orange (residual).	CI		w < PL	St	0.50m, PP=1.50kPa PID=0.50ppm
1	Nil		ES	Silty CLAY: medium plasticity, brown, orange, with fine to coarse sub-angular to sub-rounded gravel (ironstones), trace fine to coarse grained sand, weathered ironstone gravel inclusions, >=40% (residual grading to extremely weathered rock).	CI		w = PL	St - VSt	1.00m, PP=N/A PID=0.10ppm
			ES	End of test pit at 1.4 metres Refusal on HW rock					
2									
3									

GEO_TEST PIT_AS1726_2017_12627900_REDMAN PLACE_ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT 2/5/24

TEST PIT LOG SHEET

Client: Landcom	HOLE No. TP06		
Project: Geotechnical Investigation Report	SHEET 1 OF 1		
Location: Redmond Place, Orange NSW	Position: Refer to test location plan	Surface RL: N/A	Processed: MAG
Method of Exploration: 3.5T Excavator + Track	Hole Size: 0.3m x 2.0m	Checked: JM	Date: 28/03/2024
Date: 28/02/24	Logged by: SH		

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition w < PL	Consistency / Density Index St - VSt	DCP		Recorded Blows	Comments Observations
									Test Results blows per 100mm			
		ES	0.30		-	[TOPSOIL]: Silty CLAY: light brown, rootlets, charcoal inclusions between <5mm to >=15mm, <1%.	w < PL	St - VSt	0		9	0.00m, PP=N/a PID=0.30ppm
	Nil	ES	1.00		CI	Silty CLAY: medium plasticity, pale yellow/brown, ironstone gravels inclusions <10%, trace fine to coarse, sub-angular to sub-rounded gravel (ironstones), trace fine to coarse grained sand (residual).	w < PL	VSt			13	0.30m, PP=N/A PID=0.30ppm
1		ES	1.10		CI	Silty CLAY: medium plasticity, trace fine to coarse, sub-angular to sub-rounded gravel (ironstones), trace fine to coarse grained sand, weathered ironstone (residual grading to extremely weathered rock). End of Test pit at 1.1 metres. Refusal on HW rock.	w < PL	VSt to H			17	1.00m, PP=6.0kPa PID=0.40ppm
										End of probe at 1.10m	20	

GEO_TEST_PIT_DCP100/40_AS1726_2017_12627900_REDMAN_PLACE_ORANGE.GPJ_GHD_GEO_TEMPLATE_2.00.GDT_2/5/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP07

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 28/2/2024 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations
1		ES+GEO			-	[FILL]: Silty CLAY: medium plasticity, brown.	w < PL	St-VSt	0.00m, PP=N/A PID=0.30ppm
		ES+GEO			-	0.60m, becoming light brown.			0.50m, PID=0.50ppm
		ES+GEO	1.00		-	[FILL]: Silty CLAY: medium plasticity, brown, rootlets.	w = PL	St	1.00m, PP= N/A PID=0.30ppm
		ES+GEO	2.00		CI	Silty CLAY: medium plasticity, brown, mottled grey/ light brown, with fine to coarse, sub-angular to sub-rounded gravel (ironstones), trace fine to coarse grained sand.	w = PL	S-F	2.00m, PP=1.0kPa PID=0.50ppm
			2.20				VSt - H	End of test pit at 2.2 metres Refusal on HW rock	
2									
3									

GEO_TEST_PIT_AS1726_2017_12627900_REDMAN_PLACE_ORANGE.GPJ_GHD_GEO_TEMPLATE_2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP08

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 28/2/2024 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations <small>Note: * indicates signatures on original issue of log or last revision of log</small>
1		ES+GEO FD4 + FD5 ES+GEO ES+GEO			-	[FILL]: Silty CLAY: medium plasticity, brown, with rootlets and trace iron staining.	w = PL	S-F	0.00m, PID=0.30ppm 0.50m, PID=0.40ppm 1.00m, PID=0.10ppm
2		ES+GEO	1.95		CI	Silty CLAY: medium plasticity, grey, with organics, tree roots and grass, slight organic odour (residual).	w = PL	F	1.95m, PP=3.35kPa PID=0.40ppm
		ES+GEO	2.35		CI	Silty CLAY: medium plasticity, green, mottled grey, with decaying organics, slight organic odour (residual).	w = PL	St	2.35m, PP=30.0kPa PID=0.50ppm
		ES+GEO	2.75		CI-CH	Silty CLAY: medium to high plasticity, brown mottled grey orange, iron staining, weathered ironstone (residual grading to extremely weathered rock).	w = PL	St	2.75m, PP=N/A PID=0.30ppm
3			3.00			End of test pit at 3 metres Target Depth			

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP09

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 28/2/2024 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	Comments Observations
		ES+GEO	0.30		-	[TOPSOIL]: Clayey SILT: medium plasticity, brown, with rootlets in topsoil.	w = PL	MD	0.00m, PID=0.60ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, light brown, with iron staining (residual).	w = PL	S-F	0.30m, PID=0.50ppm
1	Nil	ES+GEO	0.80		CL-CI	Silty CLAY: low to medium plasticity, grey, mottled brown/orange, iron staining, weathered ironstone (residual).	w = PL	VSt	1.00m, PID=0.40ppm
		GEO	1.35		CI	Silty CLAY: medium plasticity, brown, mottled grey/orange, iron staining with weathered ironstone (residual grading to extremely weathered rock).	w = PL	S-F	1.35m, PID=0.30ppm
			1.70					VSt -H	
2						End of test pit at 1.7 metres Refusal on HW rock			
3									

GEO_TEST PIT_AS1726_2017_12627900_REDMAN PLACE_ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT 2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP10

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** MAG
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 28/02/24 **Logged by:** SH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
					-	[TOPSOIL]: Silty CLAY: light brown, rootlets.	w = PL	F - St	0		4	0.00m, PID=0.50ppm
		ES	0.50		CI	Silty CLAY: medium plasticity, light brown/yellow, rootlets (residual).	w = PL	F - St			4	0.50m, PID=0.40ppm
1		ES				1.00m, becoming yellow orange.					4	1.00m, PID=0.50ppm
	NII										5	
			1.95		CI	CLAY: medium plasticity, mottled orange/grey (residual).	w < PL	St			5	1.90m, PID=0.30ppm
		ES	2.50		CI	Silty CLAY: medium plasticity, light brown/brown, rootlets (residual grading to extremely weathered rock).	w < PL	St			6	2.50m, PID=0.30ppm
3		ES	3.00			End of Test pit at 3 metres. Target Depth.						

Note: * indicates signatures on original issue of log or last revision of log

End of probe at 1.60m

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP11

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO +PFAS	0.25		-	[TOPSOIL/FILL]: Clayey SILT: no plasticity, brown, with sub-angular to angular roadbase, with fine to medium grained sand.	w = PL	F			7	0.0m, PP=N/A PID=0.4ppm
			0.55		CI	Silty CLAY: medium plasticity, brown, with orange mottling and rootlets (residual).	w = PL	S			4	0.25m, PP=1.0kPa
		ES+GEO			CI	Silty CLAY: medium plasticity, light brown, with fine grained sand (residual).	w = PL	S-F			5	0.50m, PP=1.5kPa PID=0.5ppm
1	Nil	ES+GEO	1.40		CI	Silty CLAY: medium plasticity, brown with grey mottling (residual).	w = PL	St			3	
		ES+GEO	2.35		CI	Silty CLAY: medium plasticity, brown with mottled grey (extremely weathered rock). End of Test pit at 2.4 metres. Refusal on HW rock.	w = PL	St			5	1.4m, PP=3.5ppm
2		ES+GEO	2.40		CI	Silty CLAY: medium plasticity, brown with mottled grey (extremely weathered rock). End of Test pit at 2.4 metres. Refusal on HW rock.	w = PL	St			11	2.00m, PID=0.6ppm
			2.40			Hard excavation	w = PL	VSt - H			12	
3											13	

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP12

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
			0.25		-	[TOPSOIL]: Clayey SILT: brown, with rootlets.	M	S			4	0.00m, PP=N/A PID=0.3ppm
		ES+GEO+PFAS +FD1+FD2	0.70		CL	Silty CLAY: low plasticity, brown/orange, moist, with rootlets and with grey mottling (residual).	w = PL	F			4	0.50m, PP=N/A PID=0.3ppm
1	Nil	ES+GEO	0.70		CL	Silty CLAY: low plasticity, grey with mottled brown/orange, with fine to coarse grained angular to sub-angular gravel (ironstones) (residual).	w = PL	F			5	1.00m, PP=N/A PID=0.5ppm
		ES+GEO						St			7	
											8	Hard excavation
											10	
											12	
											20	
2			2.00		CL	Silty CLAY: low plasticity, grey with mottled brown/orange, with fine to coarse grained to sub-angular gravel (ironstones) (extremely weathered rock).	w = PL	VSt - H				
			2.30									
						End of Test pit at 2.3 metres. Refusal on HW rock.						

Note: * indicates signatures on original issue of log or last revision of log

End of probe at 1.40m

GEO_TEST_PIT_DCP100/40_AS1726_2017_12627900_REDMAN_PLACE_ORANGE.GPJ_GHD_GEO_TEMPLATE_2.00.GDT_2/5/24

See standard sheets for details of abbreviations & basis of descriptions



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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP13

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
			0.25	[TOPSOIL]: Clayey SILT: low plasticity, light brown, with rootlets.	-	w < PL	F				4	0.00m, PP=N/A PID=0.5ppm
		ES+GEO +PFAS	0.50	Silty CLAY: medium plasticity, brown (residual).	CI	w < PL	S-F				3	0.25m, PP=N/A PID=0.3ppm
		ES+GEO +PFAS	1.80	Silty CLAY: medium plasticity, brown with mottled grey (residual).	CI	w = PL	F				4	0.50m, PP=2.0kPa
	Nil		2.80	Silty CLAY: medium plasticity, brown with mottled grey (grading to weathered rock).	CI	w = PL	Vst - H				8	Very hard excavation 2.00m, PP=3.5kPa
			2.80	End of Test pit at 2.8 metres. Refusal.								

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GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP14

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO	0.15		-	[TOPSOIL]: Clayey SILT: low plasticity, light brown, with rootlets.	w = PL	MD				0.00m, PID=0.4ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, brown (residual).	w = PL	F - St				0.50m, PID=0.5ppm
1		ES+GEO	0.90		CI	Silty CLAY: medium plasticity, grey with brown mottling, with iron staining (residual).	w = PL	St - VSt				1.00m, PID=0.5ppm
		ES+GEO										
	NII											
			1.75		CI	Silty CLAY: medium plasticity, brown, green patches, with grey mottling, trace fine to coarse grained sand, fine to coarse, angular to sub-angular gravel (residual grading to extremely weathered rock).	w = PL	St - VSt				
2		ES										
		ES+GEO										
			3.00									
3						End of Test pit at 3 metres. Target Depth.						

End of probe at 1.30m

Note: * indicates signatures on original issue of log or last revision of log

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom	HOLE No. TP15	
Project: Geotechnical Investigation Report		
Location: Redmond Place, Orange NSW	SHEET 1 OF 1	
Position: Refer to test location plan	Surface RL: N/A	Processed: AJET
Method of Exploration: 3.5T Excavator + Track	Hole Size: 0.3m x 2.0m	Checked: JM
Date: 29/02/24	Logged by: MH	Date: 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
					-	[TOPSOIL]: Clayey SILT: low plasticity, brown, with rootlets and organics.	w = PL	MD				0.00m, PID=0.6ppm
		ES+GEO	0.35		CL	Silty CLAY: low plasticity, brown, with fine to medium grained sand.	w = PL	F - St				0.50m, PID=0.4ppm
1	Nil	ES+GEO	0.90		CL	Silty CLAY: low plasticity, grey with mottled brown/orange, with iron staining and trace fine to coarse grained sand, fine to coarse, angular to sub-angular gravel (residual).	w = PL	S - VSt				1.00m, PID=0.3ppm
		ES+GEO	1.80		CL	Silty CLAY: low plasticity, grey with mottled brown/orange, with iron staining and trace fine to coarse grained sand, fine to coarse, angular to sub-angular gravel (extremely weathered rock).	w = PL	S - VSt				
2		ES+GEO	2.30			End of Test pit at 2.3 metres. Refusal on HW rock.		VSt - H				
3												

GEO. TEST PIT. DCP100/40. AS1726.2017. 12627900 REDMAN PLACE ORANGE.GPJ. GHD. GEO. TEMPLATE 2.00.GDT. 2/5/24

TEST PIT LOG SHEET

Client: Landcom	HOLE No. TP16	
Project: Geotechnical Investigation Report	SHEET 1 OF 1	
Location: Redmond Place, Orange NSW	Position: Refer to test location plan	Surface RL: N/A
Method of Exploration: 3.5T Excavator + Track	Hole Size: 0.3m x 2.0m	Processed: AJET
Date: 29/02/24	Logged by: MH	Checked: JM
		Date: 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
			0.20		-	[TOPSOIL]: Clayey SILT: low plasticity, light brown, with rootlets and organics.	w = PL	F - St			7	0.00m, PP=N/A PID=0.3ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, red, with fine to coarse, sub-angular to angular gravel (ironstone) (residual).	w < PL	St			5	PP=N/A
		ES+GEO							VSt		3	
		ES+GEO									5	
1			1.00		CI	Silty CLAY: medium plasticity, red (residual).	w < PL	VSt			10	
		ES+GEO									14	1.00m, PID=0.6ppm
			1.40		CI	Silty CLAY: medium plasticity, red with grey mottling (residual).	w = PL	F - St			12	
	NII										20	
		GEO										
2			3.00			End of Test pit at 3 metres. Target Depth.						

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP17

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
			0.25		-	[TOPSOIL]: Clayey SILT: low plasticity, brown, with rootlets, one fragment of glass.	w = PL	-			5	0.00m, PID=0.5ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, light brown, trace fine to coarse, sub-angular to angular, trace fine to coarse grained sand, with iron staining (residual).	w < PL	St - VSt			5	
		ES+GEO	0.90		CL	Silty CLAY: low plasticity, brown with mottled grey, trace fine to coarse gravel, angular to sub-angular, trace fine to coarse grained sand, iron staining (residual).	w = PL	VSt			7	0.50m, PID=0.5ppm
1	Nil				CI	Silty CLAY: medium plasticity, grey with mottled orange/brown, with iron staining, weathered rock, with fine to medium grained sand (residual grading to extremely weathered rock).	w = PL	St			10	
		ES+GEO	1.85		CI	Silty CLAY: medium plasticity, grey with mottled orange/brown, with iron staining, weathered rock, with fine to medium grained sand (residual grading to extremely weathered rock).	w = PL	St			13	1.85m, PID=0.3ppm
		ES+GEO	2.80			2.7m, high plasticity clay, becoming high clay content and high moisture. End of Test pit at 2.8 metres. Refusal.	w > PL	VSt - H			13	
3											12	

Note: * indicates signatures on original issue of log or last revision of log

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP18

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO	0.20		-	[TOPSOIL]: Clayey SILT: light brown, with rootlets and organics.	w = PL	S			2	0.00m, PP=N/A PID=0.4ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, light brown mottled orange, with iron staining (residual).	w = PL	S - F			2	0.50m, PID=0.5ppm
1		GEO	1.00		CI	Silty CLAY: medium plasticity, pale brown mottled light brown/orange, trace fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, iron staining (residual).	w = PL	St			4	1.00m, PP=1.0kPa
	NII				CI	Silty CLAY: medium plasticity, orange with mottled grey, with fine grained sand (residual).	w = PL	S - F			6	2.10m, PID=2.0ppm
		GEO	2.10		CI	Silty CLAY: medium plasticity, grey with mottled orange, with weathered rock (residual grading to extremely weathered rock).	w = PL	St - VSt			7	2.65m, PP=3.5kPa PID=0.6ppm
		ES+GEO	2.65		CI	Silty CLAY: medium plasticity, grey with mottled orange, with weathered rock (residual grading to extremely weathered rock).	w = PL	St - VSt			10	
2			3.00			End of Test pit at 3 metres. Target Depth.						

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End of probe at 1.80m

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP19

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
1	N/A	ES+GEO	0.30		-	[TOPSOIL]: Clayey SILT: low plasticity, dark brown, with organics.	w = PL	S - F		0	2	0.00m, PP=N/A PID=0.9ppm
		ES+GEO	0.70		CL	Silty CLAY: low plasticity, reddish-brown, with fine to coarse, angular to sub-angular gravel (ironstones), trace fine to coarse grained sand (residual).	w = PL	St - VSt		3	6	0.50m, PP=N/A PID=0.2ppm
		ES+GEO	1.50		CL	Silty CLAY: low plasticity, reddish-brown with grey mottling, with extremely weathered rock, trace fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand (residual grading to extremely weathered rock).	w = PL	St - VSt		10	14	1.00m, PP=N/A
2						End of Test pit at 1.5 metres. Refusal on HW rock.						
3												

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP20

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 29/02/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
		ES+GEO	0.25		-	[TOPSOIL]: Silty CLAY: medium to high plasticity, grey, mottled brown, with rootlets.	w = PL	S-F			0	0.00m, PP=1.0kPa PID=0.4ppm
		ES+GEO			CI	Silty CLAY: medium plasticity, brown with grey mottling, with fine grained sand (residual).	w = PL	S			1	0.50m, PP=1.5kPa PID=0.5ppm
1			1.35			1.0m, increased moisture.	w > PL	St			3	
			1.50		CI	Silty CLAY: medium plasticity, brown with grey mottling, with fine grained sand (extremely weathered rock). End of Test pit at 1.5 metres. Refusal on HW rock.	w > PL	VSt - H			6	End of probe at 1.30m
2											10	
3											16	
											23	

Note: * indicates signatures on original issue of log or last revision of log

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom	HOLE No. TP21	
Project: Geotechnical Investigation Report	SHEET 1 OF 1	
Location: Redmond Place, Orange NSW	Surface RL: N/A	Processed: AJET
Position: Refer to test location plan	Hole Size: 0.3m x 2.0m	Checked: JM
Method of Exploration: 3.5T Excavator + Track	Logged by: MH	Date: 28/03/2024
Date: 01/03/24		

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO	0.27		-	[TOPSOIL]: Silty CLAY: medium to high plasticity, brownish grey with brown mottling, with rootlets and organics.	w = PL	S	0		1	0.00m, PP=0.5kPa PID=0.3ppm
		ES+GEO	0.60		CI-CH	Silty CLAY: medium to high plasticity, brown with grey mottling (residual).	w = PL	S-F			1	0.15m, PP=0.3kPa PID=0.3ppm
		ES+GEO	1.20		CI	Silty CLAY: medium plasticity, grey with mottled brown, with angular to sub-angular ironstone (residual).	w > PL	F			1	0.60m, PP=0.5kPa PID=0.2ppm
1		ES+GEO	1.90		CI	Silty CLAY: medium plasticity, reddish-brown, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand (residual grading to extremely weathered rock).	w > PL	F			2	1.20m, PP=0.5kPa
2		ES+GEO				End of Test pit at 1.9 metres. Refusal on HW rock.					3	

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP22

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
					-	[TOPSOIL]: Clayey SILT: low plasticity, dark brown, with rootlets.	M	MD			6	0.00m, PP=N/A PID=0.8ppm
		ES+GEO	0.45		CL	Silty CLAY: low plasticity, reddish-brown (residual).	w = PL	VSt			4	0.50m, PP=2.0kPa PID=0.6ppm
1	Nil	ES+GEO									7	
		ES+GEO	1.60			Silty CLAY: reddish-brown, mottled grey, with extremely weathered rock (residual grading to extremely weathered rock).	w = PL	St - VSt			12	1.50m, PP=4.0kPa
2		ES+GEO	2.00					VSt - H			21	
						End of Test pit at 2 metres. Refusal on HW rock.						

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

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TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP23

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
			0.15	[TOPSOIL]	-	Silty CLAY: low to medium plasticity, brown, with rootlets.	w = PL	S - F			3	0.00m, PP=N/A PID=0.6ppm
		ES			CL	Silty CLAY: low plasticity, reddish-brown, with angular to sub-angular ironstone (residual).	w = PL	F - St			3	0.15m, PP=N/A
		ES+GEO	0.80		CL	Silty CLAY: low plasticity, reddish-brown, with highly weathered rock (laterite?), angular, coarse (>20mm), 60%, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, trace cobble size, rounded rock (residual).	w = PL	VSt			5	
1			1.20		CI	Silty CLAY: medium plasticity, pale brown with orange/grey mottling, with sub-angular to angular weathered rock and iron staining (residual grading to extremely weathered rock).	w = PL	VSt - H			16	1.20m, PP=2.5kPa PID=0.9ppm
	NII		3.00			End of Test pit at 3 metres. Target Depth.					20	

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12627900

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP24
SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET

Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM

Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description <small>[COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects</small>	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
1			0.20		-	[TOPSOIL]: Silty CLAY: medium plasticity, dark brown, with rootlets.	w = PL	VS		0	1	0.00m, PP=0.5kPa PID=0.7ppm
		ES+GEO +PD7+PD8			CI	Silty CLAY: medium plasticity, brown, with rootlets (residual).	w = PL	VS		10	1	
		ES+GEO	0.60		CI	Silty CLAY: medium plasticity, grey, with highly weathered rock, 10-70mm, 60%, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, trace cobble sized rock (residual).	w > PL	S - F		20	1	0.60m, PP=N/A PID=0.4ppm
		ES+GEO	0.90			Silty CLAY: orange with mottled grey, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, with iron staining, weathered rock (residual grading to extremely weathered rock).	w = PL	St		30	4	0.90m, PP=1.5kPa PID=0.4ppm
		NII						F - St		40	7	
2										End of probe at 1.80m	15	
		GEO	3.00			End of Test pit at 3 metres. Target Depth.					5	
											3	
											2	
											3	
											4	

See standard sheets for details of abbreviations & basis of descriptions



GHD
 Level 11, 558 Pacific Highway, St Leonards NSW 2065 Australia
 T: +61 2 9462 4700 F: +61 2 9462 4710 E: slnmail@ghd.com
 CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
12627900

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP25

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO	0.15		-	[TOPSOIL]: Silty CLAY: low to medium plasticity, light brown with orange mottling, moist.	w = PL	S			1	0.15m, PP=1.0kPa PID=0.5ppm
			0.50		CI-CH	Silty CLAY: medium to high plasticity, light brown with orange mottling, with angular weathered rock (residual).	w = PL	S - F			2	0.50m, PP=1.5kPa PID=0.5ppm
		ES+GEO	1.15		CI-CH	Silty CLAY: medium to high plasticity, grey with orange mottling (residual).	w > PL	F - St			6	1.15m, PP=4.0kPa
		ES+GEO	1.70		CI-CH	Silty CLAY: medium to high plasticity, brown with orange mottling (residual).	w > PL	St - VSt			11	
						End of Test pit at 1.7 metres. Refusal on HW rock.		VSt - H			9	

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GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_25/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP26

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									Test Results	blows per 100mm		
			0.15	[TOPSOIL]: Silty CLAY: no to medium plasticity, brown, with rootlets.	-	w = PL S - F					3	0.00m, PP=N/A PID=0.6ppm
		ES		Silty CLAY: low plasticity, reddish-brown, with angular to sub-angular ironstone (residual).	CL	w = PL F	St - Vst				4	0.15m, PP=N/A
		ES+GEO	0.80	Silty CLAY: low plasticity, reddish-brown, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, trace cobble size, rounded rock (residual).	CL	w = PL Vst				End of probe at 0.70m	5	0.80m, Layer rounded boulder Hard excavation
1			1.10	Silty CLAY: medium plasticity, pale brown with orange/grey mottling, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, iron staining (residual grading to extremely weathered rock).	CI	w = PL Vst					20	1.10m, PP=2.5kPa PID=0.9ppm
		NII										
2		ES+GEO	3.00									
3				End of Test pit at 3 metres. Target Depth.								

See standard sheets for details of abbreviations & basis of descriptions



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GEO_TEST PIT_DCP100/40_AS1726 2017 12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT 2/5/24

TEST PIT LOG SHEET

Client:	Landcom	HOLE No. TP27	
Project:	Geotechnical Investigation Report		
Location:	Redmond Place, Orange NSW	SHEET 1 OF 1	
Position:	Refer to test location plan	Surface RL: N/A	Processed: AJET
Method of Exploration:	3.5T Excavator + Track	Hole Size: 0.3m x 2.0m	Checked: JM
Date:	01/03/24	Logged by: MH	Date: 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description <small>[COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects</small>	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
		ES+GEO	0.30		-	[TOPSOIL]: Silty CLAY: medium plasticity, reddish-brown.	w = PL	S - F	0		2	0.00m, PP=N/A
		ES+GEO	0.85		CL	Silty CLAY: low plasticity, reddish-brown, with rounded to sub-rounded ironstone (residual).	w = PL	F - St VSt	2		3	0.30m, PP=1.5kPa
1	Nil	ES+GEO	1.50		CI	Silty CLAY: medium plasticity, brown, with weathered rock, angular (5-30/50mm), with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand (residual grading to extremely weathered rock).	w = PL	H	18		11	0.85m, Hard excavation
		ES+GEO	1.50			End of Test pit at 1.5 metres. Refusal on HW rock.			20			
2												
3												

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

TEST PIT LOG SHEET

Client: Landcom
Project: Geotechnical Investigation Report
Location: Redmond Place, Orange NSW

HOLE No. TP28

SHEET 1 OF 1

Position: Refer to test location plan **Surface RL:** N/A **Processed:** AJET
Method of Exploration: 3.5T Excavator + Track **Hole Size:** 0.3m x 2.0m **Checked:** JM
Date: 01/03/24 **Logged by:** MH **Date:** 28/03/2024

Scale (m)	Water	Samples & Tests	Depth / (RL) metres	Graphic Log	USC Symbol	Material Description [COBBLES / BOULDERS / FILL / TOPSOIL] then SOIL NAME: plasticity / primary particle characteristics, colour, secondary and minor components, zoning (origin) and ROCK NAME: Grain size, colour, fabric and texture, inclusions or minor components, durability, strength, weathering / alteration, defects	Moisture Condition	Consistency / Density Index	DCP		Recorded Blows	Comments Observations
									blows per 100mm	20		
			0.20		-	[TOPSOIL]: Silty CLAY: low to medium plasticity, brown with mottled grey.	w = PL	F-St			4	0.00m, PP=2.5kPa
		ES+GEO	0.40		CI	Silty CLAY: medium plasticity, grey with slight orange mottling (residual).	w = PL	S-F			7	0.20m, PP=N/A
			0.65		CI-CH	Silty CLAY: medium to high plasticity, brown/orange with grey mottling (residual).	w = PL	S			2	0.40m, PP=0.5kPa
		ES+GEO	1.70		CI	Silty CLAY: medium plasticity, grey with orange mottling (residual).	w = PL	S			3	
1	Nil										2	
		ES+GEO							VSt		7	
											5	
											6	
											5	
											9	
											10	
											11	
		ES+GEO	1.90		CI	Silty CLAY: medium plasticity, grey with orange mottling, with fine to coarse, angular to sub-angular gravel, trace fine to coarse grained sand, with extremely weathered rock, angular to rounded (residual grading to extremely weathered rock). End of Test pit at 1.9 metres. Refusal.	w = PL	VSt - H			11	
2												
3												

Note: * indicates signatures on original issue of log or last revision of log

GEO_TEST PIT_DCP100/40_AS1726 2017_12627900 REDMAN PLACE ORANGE.GPJ_GHD_GEO_TEMPLATE 2.00.GDT_2/5/24

See standard sheets for details of abbreviations & basis of descriptions



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 CONSULTING GEOTECHNICAL ENGINEERS AND GEOLOGISTS

Job No.
12627900

Appendix I

Laboratory reports

Environmental Division
 Sydney
 Work Order Reference
ES2407624



Telephone : + 61-2-8784 8555



CHAIN OF CUSTODY
 ALS Laboratory
 please tick →

ALS Laboratory
 100 South Street, North Sydney, NSW 1585
 Ph: (02) 9439 9111 Fax: (02) 9439 9112
 Email: als@als.com.au
 www.als.com.au

CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date):	<input type="checkbox"/> Non Standard or urgent TAT (List due date):
OFFICE: Sydney	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	
PROJECT: 12627800	ALS QUOTE NO: EN160520	COC SEQUENCE NUMBER (C)
ORDER NUMBER:		COC: 1 2 3 4 5
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400919365	OP: 1 2 3 4 5
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY: <i>MW</i>
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	DATE/TIME: <i>5/3/24 1711</i>
Email Reports to Skye.Holloman@ghd.com		
Email Invoice to accountspayableAU@ghd.com	DATE/TIME: (ALS Client Change)	

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: **PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.**

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB: Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (160 filtered bottle required)											Additional Information
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <i>(to confirm below)</i>	INSTR	TOTAL CONTAINERS	TRH / BTEX / PAH / Metals (Arsenic, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, Zinc)	Ambient Presence / Absence	OC / OPP	PFAS (short suite)	PSBs	Phenols	VOCs	CEC, clay content, pH, Iron		
	1	TP23_2.0 - 2.5	1/03/2024	S	Jar		1									SALINITY: EA014, EA032, EA084, ED045S, EN34 PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.	
	2	TP28_1.5 - 1.9	1/03/2024	S	Jar		1										
	3	TP27_0 - 0.2	1/03/2024	S	Jar, Bag		2	X	X	X		X	X	X			
	4	TP12_1.0 - 1.5	28/02/2024	S	Jar		1										
	5	TP07_1 - 1.1	28/02/2024	S	Jar		1										
	6	TP07_2.0 - 2.2	28/02/2024	S	Jar		1										
	7	TP03_1.0 - 1.2	28/02/2024	S	Jar		1	X									
	8	TP04_0 - 0.2	28/02/2024	S	Jar		1	X		X		X	X	X			
	9	TP04_1.0 - 1.1	28/02/2024	S	Jar		1										
	10	FD3	28/02/2024	S	Jar		1	X		X		X	X	X			
	11	TP02_0.0 - 0.2	29/02/2024	S	Jar		1	X		X							
	12	TP08_0.5 - 0.6	28/02/2024	S	Jar		1	X									
	13	TP30_0 - 0.1	1/03/2024	S	Jar		1	X		X							
	14	PFAS_FD2	29/02/2024	S	PFAS soil container		1	X		Please forward this inter-lab sample to Eurofins Laboratory.							
	15	TP07_0 - 0.2	28/02/2024	S	Jar		1										
	16	TP05_0.5 - 0.6	28/02/2024	S	Jar		1	X									
	17	FD4	28/02/2024	S	Jar		1	X									
	18	TP06_0 - 0.1	28/02/2024	S	Jar		1	X									
	19	FD5	28/02/2024	S	Jar		1	X		Please forward this inter-lab sample to Eurofins Laboratory.							
	20	TP02_0.5 - 0.6	28/02/2024	S	Jar		1	X									
	21	FD2_28012024	28/02/2024	S	Jar		1	X		Please forward this inter-lab sample to Eurofins Laboratory. Please rename sample FD2.							
	22	TP08_2.0 - 2.2	28/02/2024	S	Jar		1	X		X							
	23	TP08_2.6 - 2.7	28/02/2024	S	Jar		1										
	24	TP08_1.0 - 1.1	28/02/2024	S	Jar		1										
TOTAL							25	15	1	6	0	2	2	2	0		

Client Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfruit Unpreserved Plastic
 VS = Preserved; VS = VOA Vol Sodium Bisulfate Preserved; VS = VOA Vol Sulfur Preserved; AV = Ambient Unpreserved; VS = Sulfur Preserved; Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfur Preserved Plastic; F = Formate/acetate Preserved Glass
 Unpreserved Bottle; E = EDTA Preserved Bottles; ST = Stank Bottle; ASS = Plastic Bags for Acid Soluble Soils; B = Unpreserved Bag



CHAIN OF CUSTODY
ALS Laboratory
please tick →

FOR THE CLIENT'S USE ONLY
FOR THE CLIENT'S USE ONLY
FOR THE CLIENT'S USE ONLY
FOR THE CLIENT'S USE ONLY
FOR THE CLIENT'S USE ONLY

CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): <small>(Standard TAT may be longer for some tests e.g. Ultra Trace Organics)</small>	<input type="checkbox"/> Non Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)			
OFFICE:	ALS QUOTE NO: EN/05/20	COC SEQUENCE NUMBER (Circle)		Customary Seal intact?	Yes	No	N/A
PROJECT: 12827900		COC: 1 2 3 4 5 6 7		Free ice / Frozen ice bricks present upon receipt?	Yes	No	N/A
ORDER NUMBER:		OF: 1 2 3 4 5 6 7		Random Sample Temperature on Receipt:	°C		
PROJECT MANAGER: Skye Holoman	CONTACT PH: 0400918365	RELINQUISHED BY: Skye Holoman	RECEIVED BY: <i>SW</i>	RELINQUISHED BY:	RECEIVED BY:		
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	DATE/TIME: 04/03/24 12:00pm (ALS Client Orange)	DATE/TIME: 5/3/24 1411	DATE/TIME:	DATE/TIME:		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT						
Email Reports to Skye.Holoman@ghd.com							
Email Invoice to accounts.payableAU@ghd.com							

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

ALS USE	SAMPLE DETAILS		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB: Suite Codes must be listed to attract suite price) <small>(Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required))</small>										Additional Information	
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>(to codes below)</small>	refer	TOTAL CONTAINERS	TRIT (BREM) / PAR / III + VI, copper, lead, mercury, nickel, ZINC	Asbestos Presence / Absence	DDP / OPP	PFAS (short chain)	PCBs	Phenols	VOCS		CEC, clay content, pH, Iron
24	TP23_0.6 - 1.0	1/03/2024	S	Jar			1	X								SALINITY: EA014, EA032, EA084, ED045S, EN34 PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.
25	TP24_0.4 - 0.6	1/03/2024	S	Jar			1	X								
26	TP08_2.4 - 2.5	28/02/2024	S	Jar			1				HOLD					
27	TP29_0 - 0.1	1/03/2024	S	Jar			1	X		X						
28	TP24_2.5 - 3.0	1/03/2024	S	Jar			1				HOLD					
29	FD8	1/03/2024	S	Jar			1	X		X					Please forward this inter-lab sample to Eurofins Laboratory.	
30	TP01_0.9 - 1.0	28/02/2024	S	Jar			1				HOLD					
31	TP12_0.5 - 1.0	29/02/2024	S	Jar			1	X								
32	TP13_0 - 0.5	29/02/2024	S	Jar			1			X						
33	FD7	1/03/2024	S	Jar			1			X						
34	TP01_0.5 - 0.6	28/02/2024	S	Jar			1	X								
35	TP14_1.0 - 1.5	29/02/2024	S	Jar			1				HOLD					
36	TP23_0.25 - 0.5	1/03/2024	S	Jar			1	X								
37	TP05_1.2 - 1.4	28/02/2024	S	Jar			1				HOLD					
38	TP03_2.65 - 2.75	28/02/2024	S	Jar			1				HOLD					
39	TP15_1.0 - 1.5	29/02/2024	S	Jar			1				HOLD					
40	TP01_0 - 0.2	28/02/2024	S	Jar			1	X		X						
41	TP02_1.4 - 1.5	28/02/2024	S	Jar			1				HOLD					
42	TP03_2.0 - 2.1	28/02/2024	S	Jar			1				HOLD					
43	TP10_1.0 - 1.1	28/02/2024	S	Jar			1				HOLD					
44	TP02_0 - 0.2	28/02/2024	S	Jar			1	X		X						
45	TP23_0 - 0.2	1/03/2024	S	Jar, Bag			2		X							
46	TP03_0 - 0.2	28/02/2024	S	Jar			1	X		X						
	TP06_1.0 - 1.1	28/02/2024	S	Jar			1				HOLD					
TOTAL							25	11	1	7	0	0	0	0	0	

Water Container Codes: P = Unreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unreserved; AP = Airfreight Unreserved Plastic; V = VOA Van HCl Preserved; VB = VOA Van Sodium Bisulphate Preserved; VS = VOA Van Sulfuric Preserved; AV = Airfreight Unreserved Vial 50 = Sulfuric Preserved; Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formic Acid Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottle; ST = Sterile Bottle; ASS = Plastic; Bag for As-d Sulphate Solns; B = Unreserved Bag



CHAIN OF CUSTODY
ALS Laboratory
Environ NGA - 2

1. This form is to be completed by the client and the laboratory. It is to be used to track the sample from the client to the laboratory and back to the client. It is to be used to track the sample from the laboratory to the client and back to the laboratory. It is to be used to track the sample from the client to the laboratory and back to the client. It is to be used to track the sample from the laboratory to the client and back to the laboratory.

CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: <i>Environ</i>	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) <input type="checkbox"/> Non Standard or urgent TAT (List due date):	Customary Seal intact?	Yes No N/A
PROJECT: 12627900	ALS QUOTE NO: EN/009/20	Free of frozen key bricks present upon receipt?	Yes No N/A
ORDER NUMBER:		Random Sample Temperature on Receipt:	C
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0409918365	Other comment:	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY:	RECEIVED BY:
COC emailed to ALS? [YES / NO]	EDD FORMAT (or default): ESDAT	DATE/TIME: <i>SW</i>	DATE/TIME:
Email Reports to Skye.Holloman@ghd.com		DATE/TIME: <i>5/3/24 1411</i>	DATE/TIME:
Email Invoice to accounts.payableAU@ghd.com			

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

ALS USE	SAMPLE DETAILS		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NR: Suite Codes must be listed to attract suite price)										Additional Information	
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (To exclude below)	Matrix	TOTAL CONTAINERS	TRIT (Benzene/PAH)	Asbestos Presence / Absence	OCF / OPP	PFAS (short chain)	PCBs	Phenols	VOCs		CEC, clay content, pH, etc.
	TP04_0.5-0.6		28/02/2024	S	Jar		1	X		X		X	X	X		SALINITY: EA014, EA032, EA084, EDD45S, EN34. PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.
	TP05_0-0.2		28/02/2024	S	Jar		1	X								
	TP09_1.0-1.1		28/02/2024	S	Jar		1									
	TP09_0.5-0.6		28/02/2024	S	Jar		1	X								
	TP10_0-0.2		28/02/2024	S	Jar		1	X		X		X	X	X		
	TP10_2.9-3.0		28/02/2024	S	Jar		1									
	TP02_1.0-1.1		28/02/2024	S	Jar		1									
	FD1		28/02/2024	S	Jar		1	X		X						
	TP17_2.0-2.5		29/02/2024	S	Jar		1									
	TP01_1.4-1.5		28/02/2024	S	Jar		1									
	TP18_2.6-3.0		29/02/2024	S	Jar		1									
	TP13_0-0.2		29/02/2024	S	Jar		1	X		X						
	TP11_0.5-1.0		29/02/2024	S	Jar		1	X								
	TP16_1.0-1.5		29/02/2024	S	Jar		1									
	TP14_0.5-1.0		29/02/2024	S	Jar		1	X								
	TP15_0.5-1.0		29/02/2024	S	Jar		1	X								
	TP16_0-0.5		29/02/2024	S	Jar		1	X		X						
	TP15_2.0-2.3		29/02/2024	S	Jar		1									
	TP14_2.0-2.5		29/02/2024	S	Jar		1									
	TP15_0-0.5		29/02/2024	S	Jar		1	X		X		X	X	X		
	TP18_0.5-0.6		29/02/2024	S	Jar		1	X								
	TP24_0-0.2		1/03/2024	S	Jar		1	X		X						
	TP17_0.5-0.6		29/02/2024	S	Jar		1									
	TP16_0.5-1.0		29/02/2024	S	Jar		1	X								
TOTAL							24	14	0	7	0	3	3	3	0	

Water Container Codes: P = Unpreserved Plastic; N = Nitrile Preserved Plastic; CRC = Nitrile Preserved CRC; SH = Sodium Hydroxide/Cel Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; V = VOA Vol HCl Preserved; VB = VOA Vol Sodium Bicarbonate Preserved; VS = VOA Vol Sulphuric Preserved; AV = Airfreight Unpreserved Vol SO₂ - Sulphuric Preserved; Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Sealed Ice/Ice; SP = Sulphuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Stereo Bottle; ASS = Plastic; BAI for Acid Sulphate Soils; B = Unpreserved Bag



CHAIN OF CUSTODY

ALS Laboratory
please tick →

(Small text describing laboratory accreditation and standards)

CLIENT: GHG	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): <small>(Standard TAT may be longer for some tests e.g. Ultra Trace Elements)</small>	FOR LABORATORY USE ONLY (Circle)	
OFFICE: <i>Wynburn</i>	<input type="checkbox"/> Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A	Free ice / frozen ice bricks present upon receipt? Yes No N/A
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	Random Sample Temperature on Receipt: C	
ORDER NUMBER:	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7	Other comment:	
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	RECEIVED BY:	RECEIVED BY:
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RELINQUISHED BY: Skye Holloman	RELINQUISHED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	DATE/TIME: <i>SW</i> <i>5/3/24 1411</i>	DATE/TIME:
Email Reports to Skye.Holloman@ghd.com	DATE/TIME: 04/03/24 12:00pm (A/S Change Over)		
Email Invoice to accountspayableAU@ghd.com			

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)		CONTAINER INFORMATION			ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to allow suite price) <small>Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (filtered bottle required)</small>										Additional Information			
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>codes below</small>	refer to	TOTAL CONTAINERS	ARR / STEAM / PARTS <small>As per ALS Method</small>	Asbestos Presence / Absence	OCIP / OPP	PFAS (short suite)	PCBs	Phenols	VOCs	CEC, clay content, pH Iron				
<i>71</i>	TP11_2.0 - 2.5		29/02/2024	S	Jar		1												
<i>72</i>	TP11_1.0 - 1.5		29/02/2024	S	Jar		1												
<i>73</i>	TP14_2.5 - 3.0		29/02/2024	S	Jar		1												
<i>74</i>	TP11_0.0 - 0.2		29/02/2024	S	Jar		1	X		X	X	X	X	X					
<i>75</i>	TP22_1.0 - 1.5		1/03/2024	S	Jar		1												
<i>76</i>	TP28_0.5 - 1.0		1/03/2024	S	Jar		1	X											
<i>77</i>	TP24_1.0 - 1.5		1/03/2024	S	Jar		1												
<i>78</i>	TP25_0.5 - 1.0		1/03/2024	S	Jar		1												
<i>79</i>	TP27_0.5 - 0.7		1/03/2024	S	Jar		1	X											
<i>80</i>	TP10_0.5 - 0.6		28/02/2024	S	Jar		1	X										X	
<i>81</i>	FD10		1/03/2024	S	Jar		1	X		X									
<i>82</i>	TP27_1 - 1.5		1/03/2024	S	Jar		1												
<i>83</i>	TP12_0 - 0.2		29/02/2024	S	Jar		1	X		X									
<i>84</i>	TP22_1.5 - 2.0		1/03/2024	S	Jar		1												
<i>85</i>	TP26_0.5 - 0.6		1/03/2024	S	Jar		1	X											
<i>86</i>	TP28_0 - 0.2		1/03/2024	S	Jar: 2 x Bag		3	X	X	X									
<i>87</i>	TP13_0 - 0.2		29/02/2024	S	Jar		1	X		X									
<i>88</i>	TP08_0 - 0.2		28/02/2024	S	Jar		1	X		X									
<i>89</i>	TP25_0.0 - 0.2		1/03/2024	S	Jar		1	X											
<i>90</i>	TP21_0.2 - 0.5		1/03/2024	S	Jar		1	X											
<i>91</i>	TP25_1.0 - 1.5		1/03/2024	S	Jar		1												
<i>92</i>	FD9		1/03/2024	S	Jar		1	X		X									
<i>93</i>	TP13_0.5 - 0.75		29/02/2024	S	Jar		1	X											
TOTAL							25	14	1	6	1	0	0	0	0	0	0	0	0

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cu Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airtight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulfate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airtight Unpreserved Vial SQ = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Aspartate Preserved Bottle; B = EDTA Preserved Bottle; ST = Sparte Bottle; ASS = Plastic Bag for Acid Sulphate Soils; R = Unpreserved Bag.



CHAIN OF CUSTODY

ALS Laboratory please tick

Client, Office, Project, Order Number, Project Manager, Contact PH, Sampler, Sampler Mobile, EDO Format, Email Reports, Email Invoice

TURNAROUND REQUIREMENTS: Standard TAT, Non Standard or urgent TAT, COC SEQUENCE NUMBER

FOR LABORATORY USE ONLY (Circle): Custody Seal Intact?, Free ice / frozen ice bricks present upon receipt?, Random Sample Temperature on Receipt?

RELINQUISHED BY, RECEIVED BY, DATE/TIME, EDO FORMAT, Email Reports, Email Invoice

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

Table with columns: LAB ID, SAMPLE ID, DATE / TIME, MATRIX, TYPE & PRESERVATIVE, CONTAINER INFORMATION, ANALYSIS REQUIRED, Additional Information. Includes handwritten sample IDs on the left margin.

TOTAL 28 11 4 7 1 0 0 0 0 1

Waste Container Codes: P = Unpreserved Plastic, N = Nitric Preserved Plastic, OHC = Hydrochloric Preserved Plastic, SH = Sodium Hydroxide/Cl Preserved, S = Sulfuric Preserved Plastic, AG = Amber Glass Unpreserved, AP = Airtight Unpreserved Plastic, V = VOA Van HCl Preserved, VB = VOA Van Sodium Bisulfate Preserved, VS = VOA Van Sulfuric Preserved, AV = Airtight Unpreserved Vial SG = Sulfuric Preserved, Amber Glass, H = HCl preserved Plastic, HS = HCl preserved Separation bottle, SP = Sulfuric Preserved Plastic, F = Fomaldeside Preserved Glass, Z = Zinc Acetate Preserved Bottle, E = EDTA Preserved Bottle, ST = Sterile Bottle, ASS = Plastic Bag for Ar-d Sulphate Soils, B = Unpreserved Bag



CHAIN OF CUSTODY

ALS Laboratory please tick ->

ALS Laboratory Chain of Custody Form... (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)

CLIENT: GHD
OFFICE:
PROJECT: 12627900
ORDER NUMBER:
PROJECT MANAGER: Skye Holloman
CONTACT PH: 0490918365
SAMPLER: Malachi Hurley
SAMPLER MOBILE: 0477619707
RELINQUISHED BY: Skye Holloman
RECEIVED BY: [Signature]
DATE/TIME: 5/3/24 1411

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

Table with columns: LAB USE, SAMPLE ID, DATE / TIME, MATRIX, TYPE & PRESERVATIVE, TOTAL CONTAINERS, ANALYSIS REQUIRED (including suites like PCBs, PFAS, etc.), and Additional Information. Includes handwritten sample IDs on the left margin.

Water Container Codes: P = Unpreserved Plastic, N = Nitric Preserved Plastic, OPC = Nitric Preserved ORC, SH = Sodium Hydroxide/Cu Preserved, S = Sodium Hydroxide Preserved Plastic, AG = Amber Glass Unpreserved, AP = Amber Glass Preserved Plastic, etc.



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2407624**

Client	: GHD PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Skye Holloman	Contact	: Samiksha Sathish
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: skye.holloman@ghd.com	E-mail	: samiksha.sathish@alsglobal.com
Telephone	: +61 2 6393 6400	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: 12627900	Page	: 1 of 7
Order number	: 12627900	Quote number	: EB2020GHDSE0038 (EN/000)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	:		
Sampler	: MALACHI HURLEY		

Dates

Date Samples Received	: 05-Mar-2024 14:11	Issue Date	: 14-Mar-2024
Client Requested Due Date	: 15-Mar-2024	Scheduled Reporting Date	: 15-Mar-2024

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 5	Temperature	: 14.9°C, 16.3°C, 12.1°C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 128 / 75
		No. of samples NOT collected	: 3

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
- This is an updated SRN which indicates the addition of EA200 (Asbestos Identification - Presence/Absence) for sample 61, TP16_0-0.5, as per client request.
- **Sample TP10_0.5 - 0.6 and TP17_2.5 - 2.8 unable to conduct Clay content as bag was not received.**
- **Sample FD5_01/03/24 received extra has been placed on hold, please confirm**
- **Sample PFAS_FD2, FD5_28/02/24, FD2_28012024, FD08 have been forwarded to EUROFINS.**
- **Sample R01_01032024 unable to conduct Chromium III & VI as appropriately preserved bottle was not received.**
- **Sample TP11_0 - 0.2 bag was not received, therefore Asbestos analysis could not be conducted.**
- **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.**
- Sample TP13_0 - 0.2 was not received due to the following reason: Sample was not received
- Sample TP03_0.5 - 0.6 was not received due to the following reason: Sample was not received
- Sample TP16_0 0.2 was not received due to the following reason: Sample was not received
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- 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.

Method Sample ID	Sample Container Received	Preferred Sample Container for Analysis
Hexavalent Chromium by Alkaline Digestion and DA Finish : EG048G		
TP02_0.0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TP11_0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
PAH/Phenols (SIM) : EP075(SIM)		
TP02_0.0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TP11_0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
Pesticides by GCMS : EP068		
TP02_0.0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TRH - Semivolatile Fraction : EP071		
TP02_0.0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TP11_0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TRH Volatiles/BTEX : EP080		
TP02_0.0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved
TP11_0 - 0.2	- HDPE Soil Jar	- Soil Glass Jar - Unpreserved

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

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EG049G-Alk Trivalent Chromium by Discrete Analyser	SOIL - EP074 (solids) minus BTEXN Volatile Organic Compounds (minus BTEXN)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2407624-001	01-Mar-2024 00:00	TP23_2.0 - 2.5	✓						
ES2407624-002	01-Mar-2024 00:00	TP28_1.5 - 1.9	✓						
ES2407624-003	01-Mar-2024 00:00	TP27_0 - 0.2		✓	✓	✓	✓	✓	
ES2407624-004	29-Feb-2024 00:00	TP12_1.0 - 1.5	✓						
ES2407624-005	28-Feb-2024 00:00	TP07_1 - 1.1	✓						
ES2407624-006	28-Feb-2024 00:00	TP07_2.0 - 2.2	✓						
ES2407624-007	28-Feb-2024 00:00	TP03_1.0 - 1.2		✓		✓			✓
ES2407624-008	28-Feb-2024 00:00	TP04_0 - 0.2		✓		✓	✓	✓	
ES2407624-009	28-Feb-2024 00:00	TP04_1.0 - 1.1	✓						
ES2407624-010	28-Feb-2024 00:00	FD3		✓		✓	✓	✓	
ES2407624-011	29-Feb-2024 00:00	TP02_0.0 - 0.2		✓		✓			✓
ES2407624-012	28-Feb-2024 00:00	TP08_0.5 - 0.6		✓		✓			✓
ES2407624-013	01-Mar-2024 00:00	TP30_0 - 0.1		✓		✓			✓
ES2407624-014	28-Feb-2024 00:00	TP07_0 - 0.2	✓						
ES2407624-015	28-Feb-2024 00:00	TP05_0.5-0.6		✓		✓			✓
ES2407624-016	28-Feb-2024 00:00	FD4		✓		✓			✓
ES2407624-017	28-Feb-2024 00:00	TP06_0-0.1		✓		✓			✓
ES2407624-018	28-Feb-2024 00:00	TP02_0.5-0.6		✓		✓			✓
ES2407624-019	28-Feb-2024 00:00	TP08_2.0-2.2		✓		✓			✓
ES2407624-020	28-Feb-2024 00:00	TP08_2.6-2.7	✓						
ES2407624-021	28-Feb-2024 00:00	TP08_1.0-1.1	✓						
ES2407624-022	01-Mar-2024 00:00	TP23_0.6 - 1.0		✓		✓			✓
ES2407624-023	01-Mar-2024 00:00	TP24_0.4 - 0.6		✓		✓			✓



			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EG049G-Alk Trivalent Chromium by Discrete Analyser	SOIL - EP074 (solids) minus BTEXN Volatile Organic Compounds (minus BTEXN)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2407624-024	28-Feb-2024 00:00	TP08_2.4 - 2.5	✓						
ES2407624-025	01-Mar-2024 00:00	TP29_0 - 0.1		✓		✓			✓
ES2407624-026	01-Mar-2024 00:00	TP24_2.5 - 3.0	✓						
ES2407624-027	28-Feb-2024 00:00	TP01_0.9-1.0	✓						
ES2407624-028	29-Feb-2024 00:00	TP12_0.5 - 1.0		✓		✓			✓
ES2407624-029	29-Feb-2024 00:00	TP13_0 - 0.5		✓					
ES2407624-030	01-Mar-2024 00:00	FD7		✓		✓			✓
ES2407624-031	28-Feb-2024 00:00	TP01_0.5 - 0.6		✓		✓			✓
ES2407624-032	29-Feb-2024 00:00	TP14_1.0 - 1.5	✓						
ES2407624-033	01-Mar-2024 00:00	TP23_0.25 - 0.5		✓		✓			✓
ES2407624-034	28-Feb-2024 00:00	TP05_1.2 - 1.4	✓						
ES2407624-035	28-Feb-2024 00:00	TP03_2.65 - 2.75	✓						
ES2407624-036	29-Feb-2024 00:00	TP15_1.0 - 1.5	✓						
ES2407624-037	28-Feb-2024 00:00	TP01_0 - 0.2		✓		✓			✓
ES2407624-038	28-Feb-2024 00:00	TP02_1.4 - 1.5	✓						
ES2407624-039	28-Feb-2024 00:00	TP03_2.0 - 2.1	✓						
ES2407624-040	28-Feb-2024 00:00	TP10_1.0 - 1.1	✓						
ES2407624-041	28-Feb-2024 00:00	TP02_0 - 0.2		✓		✓			✓
ES2407624-042	01-Mar-2024 00:00	TP23_0 - 0.2			✓				
ES2407624-043	28-Feb-2024 00:00	TP03_0 - 0.2		✓		✓			✓
ES2407624-044	28-Feb-2024 00:00	TP06_1.0 - 1.1	✓						
ES2407624-045	28-Feb-2024 00:00	TP04_0.5 - 0.6		✓		✓	✓	✓	
ES2407624-046	28-Feb-2024 00:00	TP05_0 - 0.2		✓		✓			✓
ES2407624-047	28-Feb-2024 00:00	TP09_1.0 - 1.1	✓						
ES2407624-048	28-Feb-2024 00:00	TP09_0.5 - 0.6		✓		✓			✓
ES2407624-049	28-Feb-2024 00:00	TP10_0 - 0.2		✓		✓	✓	✓	
ES2407624-050	28-Feb-2024 00:00	TP10_2.9 - 3.0	✓						
ES2407624-051	28-Feb-2024 00:00	TP02_1.0 - 1.1	✓						
ES2407624-052	28-Feb-2024 00:00	FD1		✓		✓			✓
ES2407624-053	29-Feb-2024 00:00	TP17_2.0 - 2.5	✓						
ES2407624-054	28-Feb-2024 00:00	TP01_1.4 - 1.5	✓						
ES2407624-055	29-Feb-2024 00:00	TP18_2.6 - 3.0	✓						
ES2407624-056	29-Feb-2024 00:00	TP13_0 - 0.2		✓		✓			✓
ES2407624-057	29-Feb-2024 00:00	TP11_0.5_1.0		✓		✓			✓
ES2407624-058	29-Feb-2024 00:00	TP16_1.0 - 1.5	✓						
ES2407624-059	29-Feb-2024 00:00	TP14_0.5 - 1.0		✓		✓			✓
ES2407624-060	29-Feb-2024 00:00	TP15_0.5 - 1.0		✓		✓			✓
ES2407624-061	29-Feb-2024 00:00	TP16_0 - 0.5		✓	✓	✓			✓
ES2407624-062	29-Feb-2024 00:00	TP15_2.0 - 2.3	✓						
ES2407624-063	29-Feb-2024 00:00	TP14_2.0 - 2.5	✓						
ES2407624-064	29-Feb-2024 00:00	TP15_0 - 0.5		✓		✓	✓	✓	



			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EG049G-Alk Trivalent Chromium by Discrete Analyser	SOIL - EP074 (solids) minus BTEXN Volatile Organic Compounds (minus BTEXN)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2407624-065	29-Feb-2024 00:00	TP18_0.5 - 0.6		✓		✓			✓
ES2407624-066	01-Mar-2024 00:00	TP24_0 - 0.2		✓		✓			✓
ES2407624-067	29-Feb-2024 00:00	TP17_0.5 - 0.6	✓						
ES2407624-068	29-Feb-2024 00:00	TP16_0.5 - 1.0		✓		✓			✓
ES2407624-069	29-Feb-2024 00:00	TP11_2.0 - 2.5	✓						
ES2407624-070	29-Feb-2024 00:00	TP11_1.0 - 1.5	✓						
ES2407624-071	29-Feb-2024 00:00	TP14_2.5 - 3.0	✓						
ES2407624-072	29-Feb-2024 00:00	TP11_0.0 - 0.2		✓		✓	✓	✓	
ES2407624-073	01-Mar-2024 00:00	TP22_1.0 - 1.5	✓						
ES2407624-074	01-Mar-2024 00:00	TP28_0.5 - 1.0		✓		✓			✓
ES2407624-075	01-Mar-2024 00:00	TP24_1.0 - 1.5	✓						
ES2407624-076	01-Mar-2024 00:00	TP25_0.5 - 1.0	✓						
ES2407624-077	01-Mar-2024 00:00	TP27_0.5 - 0.7		✓		✓			✓
ES2407624-078	28-Feb-2024 00:00	TP10_0.5 - 0.6		✓		✓			✓
ES2407624-079	01-Mar-2024 00:00	FD10		✓		✓			✓
ES2407624-080	01-Mar-2024 00:00	TP27_1 - 1.5	✓						
ES2407624-081	29-Feb-2024 00:00	TP12_0 - 0.2		✓		✓			✓
ES2407624-082	01-Mar-2024 00:00	TP22_1.5 - 2.0	✓						
ES2407624-083	01-Mar-2024 00:00	TP26_0.5 - 0.6		✓		✓			✓
ES2407624-084	01-Mar-2024 00:00	TP26_0 - 0.2		✓	✓	✓			✓
ES2407624-086	28-Feb-2024 00:00	TP08_0 - 0.2		✓		✓			✓
ES2407624-087	01-Mar-2024 00:00	TP25_0.0 - 0.2		✓		✓			✓
ES2407624-088	01-Mar-2024 00:00	TP21_0.2 - 0.5		✓		✓			✓
ES2407624-089	01-Mar-2024 00:00	TP25_1.0 - 1.5	✓						
ES2407624-090	01-Mar-2024 00:00	FD9		✓		✓			✓
ES2407624-091	29-Feb-2024 00:00	TP13_0.5 - 0.75		✓		✓			✓
ES2407624-092	01-Mar-2024 00:00	TP26_1.0 - 1.2	✓						
ES2407624-093	28-Feb-2024 00:00	TP10_2.0 - 2.2	✓						
ES2407624-094	29-Feb-2024 00:00	TP20_0 - 1.0		✓	✓	✓			✓
ES2407624-095	29-Feb-2024 00:00	TP13_0.5 - 1.0		✓		✓			✓
ES2407624-096	01-Mar-2024 00:00	TP22_0 - 0.2		✓	✓	✓			✓
ES2407624-097	01-Mar-2024 00:00	TP21_0.0 - 0.2		✓	✓	✓			✓
ES2407624-099	01-Mar-2024 00:00	TP22_0.5 - 1.0		✓		✓			✓
ES2407624-100	01-Mar-2024 00:00	TP25_1.5 - 1.7	✓						
ES2407624-101	28-Feb-2024 00:00	TP06_0.5 - 0.6		✓		✓			✓
ES2407624-102	01-Mar-2024 00:00	TP21_1.5 - 1.9	✓						
ES2407624-103	28-Feb-2024 00:00	TP09_1.6 - 1.7	✓						
ES2407624-104	28-Feb-2024 00:00	TP09_0 - 0.2		✓		✓			✓
ES2407624-105	29-Feb-2024 00:00	PFAS_S1		✓					
ES2407624-106	29-Feb-2024 00:00	TP13_0 - 0.5		✓		✓			✓
ES2407624-107	01-Mar-2024 00:00	TP28_1.0 - 1.5	✓						



			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EG049G-Alk Trivalent Chromium by Discrete Analyser	SOIL - EP074 (solids) minus BTEXN Volatile Organic Compounds (minus BTEXN)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2407624-108	29-Feb-2024 00:00	TP12_2.0 - 2.5	✓						
ES2407624-109	28-Feb-2024 00:00	TP07_0.5 - 0.6		✓		✓			✓
ES2407624-110	01-Mar-2024 00:00	TP28_0 - 0.2		✓	✓	✓			✓
ES2407624-111	29-Feb-2024 00:00	TP17_2.5 - 2.8		✓					
ES2407624-112	29-Feb-2024 00:00	TP14_0 - 0.5		✓		✓			✓
ES2407624-113	29-Feb-2024 00:00	TP13_1.0 - 1.5	✓						
ES2407624-114	29-Feb-2024 00:00	TP13_2.0 - 2.5	✓						
ES2407624-115	01-Mar-2024 00:00	TP21_0.6 - 1.0	✓						
ES2407624-116	29-Feb-2024 00:00	TP20_0.5 - 0.6		✓		✓			✓
ES2407624-117	01-Mar-2024 00:00	FD6	✓						
ES2407624-118	29-Feb-2024 00:00	TP11_0 - 0.2		✓		✓			✓
ES2407624-119	29-Feb-2024 00:00	PFAS_FD1		✓					
ES2407624-120	28-Feb-2024 00:00	TP17_0.0 - 0.2		✓	✓	✓			✓
ES2407624-121	29-Feb-2024 00:00	TP13_1.0 - 1.5	✓						
ES2407624-122	29-Feb-2024 00:00	TP17_1.0 - 1.2	✓						
ES2407624-126	29-Feb-2024 00:00	TP18_0 - 0.2			✓				
ES2407624-131	01-Mar-2024 00:00	FD5 EXTRA SAMPLE	✓						

Matrix: SOIL

Laboratory sample ID Sampling date / time Sample ID

			SOIL - EA002 pH (1:5)	SOIL - ED006 Def Exchangeable Cations on Alkaline Soils - Default	SOIL - ED007 Def CEC / Exchangeable Cations (ED007) - Default	SOIL - EG005T (solids) Total Metals by ICP-AES	SOIL - EP080 BTEXN	SOIL - EP231 (solids) PFAS - Short Suite (12 analytes)	SOIL - S-12 OC/OP Pesticides
ES2407624-011	29-Feb-2024 00:00	TP02_0.0 - 0.2							✓
ES2407624-013	01-Mar-2024 00:00	TP30_0 - 0.1							✓
ES2407624-019	28-Feb-2024 00:00	TP08_2.0-2.2							✓
ES2407624-025	01-Mar-2024 00:00	TP29_0 - 0.1							✓
ES2407624-029	29-Feb-2024 00:00	TP13_0 - 0.5							✓
ES2407624-030	01-Mar-2024 00:00	FD7							✓
ES2407624-037	28-Feb-2024 00:00	TP01_0 - 0.2							✓
ES2407624-041	28-Feb-2024 00:00	TP02_0 - 0.2							✓
ES2407624-043	28-Feb-2024 00:00	TP03_0 - 0.2							✓
ES2407624-052	28-Feb-2024 00:00	FD1							✓
ES2407624-056	29-Feb-2024 00:00	TP13_0 - 0.2							✓
ES2407624-061	29-Feb-2024 00:00	TP16_0 - 0.5							✓



			SOIL - EA002 pH (1:5)	SOIL - ED006 Def Exchangeable Cations on Alkaline Soils - Default	SOIL - ED007 Def CEC / Exchangeable Cations (ED007) - Default	SOIL - EG005T (solids) Total Metals by ICP-AES	SOIL - EP080 BTEXN	SOIL - EP231 (solids) PFAS - Short Suite (12 analytes)	SOIL - S-12 OC/OP Pesticides
ES2407624-066	01-Mar-2024 00:00	TP24_0 - 0.2							✓
ES2407624-072	29-Feb-2024 00:00	TP11_0.0 - 0.2						✓	
ES2407624-078	28-Feb-2024 00:00	TP10_0.5 - 0.6	✓		✓	✓			
ES2407624-079	01-Mar-2024 00:00	FD10							✓
ES2407624-081	29-Feb-2024 00:00	TP12_0 - 0.2							✓
ES2407624-084	01-Mar-2024 00:00	TP26_0 - 0.2							✓
ES2407624-086	28-Feb-2024 00:00	TP08_0 - 0.2							✓
ES2407624-090	01-Mar-2024 00:00	FD9							✓
ES2407624-094	29-Feb-2024 00:00	TP20_0 - 1.0							✓
ES2407624-097	01-Mar-2024 00:00	TP21_0.0 - 0.2							✓
ES2407624-101	28-Feb-2024 00:00	TP06_0.5 - 0.6							✓
ES2407624-104	28-Feb-2024 00:00	TP09_0 - 0.2							✓
ES2407624-105	29-Feb-2024 00:00	PFAS_S1						✓	
ES2407624-106	29-Feb-2024 00:00	TP13_0 - 0.5							✓
ES2407624-110	01-Mar-2024 00:00	TP28_0 - 0.2							✓
ES2407624-111	29-Feb-2024 00:00	TP17_2.5 - 2.8	✓	✓		✓			
ES2407624-112	29-Feb-2024 00:00	TP14_0 - 0.5							✓
ES2407624-118	29-Feb-2024 00:00	TP11_0 - 0.2						✓	
ES2407624-119	29-Feb-2024 00:00	PFAS_FD1						✓	
ES2407624-123	26-Feb-2024 00:00	TRIP SPIKE 20					✓		
ES2407624-124	26-Feb-2024 00:00	TRIP SPIKE 21					✓		
ES2407624-129	26-Feb-2024 00:00	TSC20					✓		
ES2407624-130	26-Feb-2024 00:00	TSC21					✓		
			SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs						
Matrix: SOIL									
Laboratory sample ID	Sampling date / time	Sample ID							
ES2407624-125	26-Feb-2024 00:00	TRIP BLANK	✓						



Laboratory sample ID	Sampling date / time	Sample ID	Matrix: WATER
ES2407624-128	01-Mar-2024 00:00	R01_01032024	WATER - W-26T TRH/BTEX/NP/AH/Total 8 Metals

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV) Email accountspayableAU@ghd.com

Accounts Payable Australia

- A4 - AU Tax Invoice (INV) Email accountspayableAU@ghd.com

GHD LAB REPORTS

- *AU Certificate of Analysis - NATA (COA) Email ghdlabreports@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email ghdlabreports@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email ghdlabreports@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email ghdlabreports@ghd.com
- EDI Format - ESDAT (ESDAT) Email ghdlabreports@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT) Email ghdlabreports@ghd.com

Skye Holloman

- *AU Certificate of Analysis - NATA (COA) Email skye.holloman@ghd.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email skye.holloman@ghd.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email skye.holloman@ghd.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email skye.holloman@ghd.com
- A4 - AU Tax Invoice (INV) Email skye.holloman@ghd.com
- Chain of Custody (CoC) (COC) Email skye.holloman@ghd.com
- EDI Format - ESDAT (ESDAT) Email skye.holloman@ghd.com
- EDI Format - XTab (XTAB) Email skye.holloman@ghd.com
- Electronic SRN for ESdat (ESRN_ESDAT) Email skye.holloman@ghd.com

Inter-Laboratory Testing

Analysis conducted by ALS Newcastle, NATA accreditation no. 825, site no. 1656 (Chemistry) 9854 (Biology).

(SOIL) EA200: AS 4964 - 2004 Identification of Asbestos in Soils



CERTIFICATE OF ANALYSIS

Work Order	: ES2407624	Page	: 1 of 98
Client	: GHD PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Skye Holloman	Contact	: Samiksha Sathish
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 2 6393 6400	Telephone	: +61-2-8784 8555
Project	: 12627900	Date Samples Received	: 05-Mar-2024 14:11
Order number	: 12627900	Date Analysis Commenced	: 11-Mar-2024
C-O-C number	: ----	Issue Date	: 18-Mar-2024 11:23
Sampler	: MALACHI HURLEY		
Site	:		
Quote number	: EN/000		
No. of samples received	: 131		
No. of samples analysed	: 75		



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
- Descriptive Results
- Surrogate Control Limits

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

Signatories

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

Signatories	Position	Accreditation Category
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Brendan Schrader	Laboratory Technician	Newcastle - Asbestos, Mayfield West, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW



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.

- EG048: LOR raised for Cr+6 by Alkaline digest on various sample due to sample matrix.
- ALS is not NATA accredited for the analysis of Exchangeable Cations on Alkaline Soils when performed under ALS Method ED006.
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP074: Where reported, Total Trihalomethanes is the sum of the reported concentrations of all Trihalomethanes at or above the LOR.
- EP074: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074: Where reported, Sum of chlorinated hydrocarbons includes carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethene, vinyl chloride, hexachlorobutadiene and methylene chloride.
- EP074: Where reported, Total Trimethylbenzenes is the sum of the reported concentrations of 1.2.3-Trimethylbenzene, 1.2.4-Trimethylbenzene and 1.3.5-Trimethylbenzene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EG005T: Poor precision was obtained for Iron on sample ES2407624 #111. Confirmed by redigestion and reanalysis.
- Poor spike recovery for Hexavalent Chromium Alkaline Digest analysis due to matrix interferences.
- EG005T: Poor precision was obtained for Chromium, Copper, Lead and Nickel on sample ES2408103-009. Confirmed by re-digestion and reanalysis.
- EP068: Positive results on sample ES2407624 # 19 have been confirmed by re-extraction and re-analysis.
- EG005T: Poor precision was obtained for Chromium on sample ES2407624-022. Confirmed by re-digestion and reanalysis.
- EG048G: LOR raised for Hexavalent Chromium Alkaline Digest analysis due to sample matrix
- EP074: Samples not received in a suitable time frame to conduct the analysis within the recommended holding time.



- EP080: The trip spike and its control have been analysed for volatile TPH and BTEXN only. The trip spike and control were prepared in the lab using reagent grade sand spiked with petrol. The spike was dispatched from the lab and the control retained.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- ED007 and ED008: When Exchangeable Al is reported from these methods, it should be noted that Rayment & Lyons (2011) suggests Exchange Acidity by 1M KCl - Method 15G1 (ED005) is a more suitable method for the determination of exchange acidity (H+ + Al3+).
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	18.8	9.9	4.4	11.1	7.6	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	----	----	----	
Asbestos (Trace)	1332-21-4	-	-	No	----	----	----	----	
Asbestos Type	1332-21-4	-	--	-	----	----	----	----	
Synthetic Mineral Fibre	----	-	--	No	----	----	----	----	
Organic Fibre	----	-	--	No	----	----	----	----	
Sample weight (dry)	----	0.01	g	493	----	----	----	----	
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	----	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	<5	12	11	16	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	72	41	72	39	29	
Copper	7440-50-8	5	mg/kg	18	31	40	40	26	
Lead	7439-92-1	5	mg/kg	14	18	72	65	56	
Nickel	7440-02-0	2	mg/kg	14	10	12	11	9	
Zinc	7440-66-6	5	mg/kg	24	18	70	71	18	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	72	41	72	39	29	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	<0.1	<0.1	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Aldrin	309-00-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	----	0.42	0.99	<0.05	
Endrin	72-20-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	<0.05	----	0.42	0.99	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Dimethoate	60-51-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Diazinon	333-41-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Malathion	121-75-5	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Fenthion	55-38-9	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Parathion	56-38-2	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Ethion	563-12-2	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	----	<0.05	<0.05	<0.05	
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg	<5	----	<5	<5	----	
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	<5	<5	----	
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	----	<5	<5	----	
2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	----	<5	<5	----	
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	----	<5	<5	----	
Chloromethane	74-87-3	5	mg/kg	<5	----	<5	<5	----	
Vinyl chloride	75-01-4	5	mg/kg	<5	----	<5	<5	----	
Bromomethane	74-83-9	5	mg/kg	<5	----	<5	<5	----	
Chloroethane	75-00-3	5	mg/kg	<5	----	<5	<5	----	
Trichlorofluoromethane	75-69-4	5	mg/kg	<5	----	<5	<5	----	
1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Iodomethane	74-88-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time					01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP074E: Halogenated Aliphatic Compounds - Continued									
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Dibromomethane	74-95-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Bromobenzene	108-86-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP074G: Trihalomethanes									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP074G: Trihalomethanes - Continued									
Chloroform	67-66-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Bromoform	75-25-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	<1	<1	----	
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	----	
Pentachlorophenol	87-86-5	2	mg/kg	<2	----	<2	<2	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080: BTEXN									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	103	----	102	108	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	108	----	99.8	104	94.5	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	117	----	124	130	94.6	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.5	%	80.6	----	87.2	87.0	----	
Toluene-D8	2037-26-5	0.5	%	89.4	----	95.3	96.4	----	
4-Bromofluorobenzene	460-00-4	0.5	%	86.1	----	89.9	91.6	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	79.3	78.8	75.8	78.2	84.4	
2-Chlorophenol-D4	93951-73-6	0.5	%	76.6	76.2	74.3	75.7	81.5	
2,4,6-Tribromophenol	118-79-6	0.5	%	75.1	65.0	63.4	62.8	73.3	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	84.6	90.2	84.8	88.5	87.3	
Anthracene-d10	1719-06-8	0.5	%	94.2	101	93.6	96.2	98.7	
4-Terphenyl-d14	1718-51-0	0.5	%	86.0	92.0	84.5	88.3	89.1	
EP080S: TPH(V)/BTEX Surrogates									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0 - 0.2	TP03_1.0 - 1.2	TP04_0 - 0.2	FD3	TP02_0.0 - 0.2
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-003	ES2407624-007	ES2407624-008	ES2407624-010	ES2407624-011	
				Result	Result	Result	Result	Result	
EP080S: TPH(V)/BTEX Surrogates - Continued									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	79.9	108	86.4	85.8	113	
Toluene-D8	2037-26-5	0.2	%	84.9	87.1	90.2	91.4	86.2	
4-Bromofluorobenzene	460-00-4	0.2	%	89.5	83.6	93.4	94.9	82.8	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP08_0.5 - 0.6	TP30_0 - 0.1	TP05_0.5-0.6	FD4	TP06_0-0.1
Sampling date / time				28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-012	ES2407624-013	ES2407624-015	ES2407624-016	ES2407624-017	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	8.5	24.9	11.3	11.4	9.9	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	7	<5	<5	10	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	30	40	24	34	15	
Copper	7440-50-8	5	mg/kg	57	22	17	61	51	
Lead	7439-92-1	5	mg/kg	31	33	8	46	19	
Nickel	7440-02-0	2	mg/kg	6	6	9	8	8	
Zinc	7440-66-6	5	mg/kg	31	44	12	26	43	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<2.5	<2.5	<0.5	<2.5	<2.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	30	40	24	34	15	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	----	----	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	----	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	----	----	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	----	----	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	----	----	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	----	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	----	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	----	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	----	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP08_0.5 - 0.6	TP30_0 - 0.1	TP05_0.5-0.6	FD4	TP06_0-0.1
Sampling date / time					28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00
Compound	CAS Number	LOR	Unit		ES2407624-012	ES2407624-013	ES2407624-015	ES2407624-016	ES2407624-017
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
cis-Chlordane	5103-71-9	0.05	mg/kg		----	<0.05	----	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	<0.05	----	----	----
4,4'-DDE	72-55-9	0.05	mg/kg		----	<0.05	----	----	----
Endrin	72-20-8	0.05	mg/kg		----	<0.05	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	<0.05	----	----	----
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg		----	<0.05	----	----	----
4,4'-DDD	72-54-8	0.05	mg/kg		----	<0.05	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	<0.05	----	----	----
4,4'-DDT	50-29-3	0.2	mg/kg		----	<0.2	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	<0.05	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg		----	<0.2	----	----	----
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		----	<0.05	----	----	----
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg		----	<0.05	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		----	<0.05	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		----	<0.05	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		----	<0.2	----	----	----
Dimethoate	60-51-5	0.05	mg/kg		----	<0.05	----	----	----
Diazinon	333-41-5	0.05	mg/kg		----	<0.05	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		----	<0.05	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		----	<0.2	----	----	----
Malathion	121-75-5	0.05	mg/kg		----	<0.05	----	----	----
Fenthion	55-38-9	0.05	mg/kg		----	<0.05	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		----	<0.05	----	----	----
Parathion	56-38-2	0.2	mg/kg		----	<0.2	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP08_0.5 - 0.6	TP30_0 - 0.1	TP05_0.5-0.6	FD4	TP06_0-0.1
Sampling date / time				28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-012	ES2407624-013	ES2407624-015	ES2407624-016	ES2407624-017	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP08_0.5 - 0.6	TP30_0 - 0.1	TP05_0.5-0.6	FD4	TP06_0-0.1
Sampling date / time				28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-012	ES2407624-013	ES2407624-015	ES2407624-016	ES2407624-017	
				Result	Result	Result	Result	Result	
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%	----	88.9	----	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	94.3	----	----	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	83.3	86.0	80.3	82.4	79.8	
2-Chlorophenol-D4	93951-73-6	0.5	%	80.5	83.3	75.7	79.6	76.5	
2,4,6-Tribromophenol	118-79-6	0.5	%	71.2	89.7	75.3	74.9	65.2	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	90.6	90.2	91.1	89.2	88.6	
Anthracene-d10	1719-06-8	0.5	%	99.7	99.8	102	100	99.2	
4-Terphenyl-d14	1718-51-0	0.5	%	90.8	89.3	91.4	91.2	89.1	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	115	96.7	114	117	120	
Toluene-D8	2037-26-5	0.2	%	90.4	71.6	84.4	84.7	89.0	
4-Bromofluorobenzene	460-00-4	0.2	%	85.6	71.7	82.5	83.4	82.3	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP02_0.5-0.6	TP08_2.0-2.2	TP23_0.6 - 1.0	TP24_0.4 - 0.6	TP29_0 - 0.1
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-018	ES2407624-019	ES2407624-022	ES2407624-023	ES2407624-025	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	11.3	11.4	15.4	16.2	14.3	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	16	7	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	106	31	52	30	56	
Copper	7440-50-8	5	mg/kg	26	66	36	19	13	
Lead	7439-92-1	5	mg/kg	18	80	17	7	12	
Nickel	7440-02-0	2	mg/kg	12	10	9	6	10	
Zinc	7440-66-6	5	mg/kg	14	35	28	17	18	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<2.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	106	31	52	30	56	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	----	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	----	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	----	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP02_0.5-0.6	TP08_2.0-2.2	TP23_0.6 - 1.0	TP24_0.4 - 0.6	TP29_0 - 0.1
Sampling date / time					28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-018	ES2407624-019	ES2407624-022	ES2407624-023	ES2407624-025	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	----	1.11	----	----	<0.05	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	----	0.15	----	----	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	----	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	----	----	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	----	----	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	1.26	----	----	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	----	----	<0.05	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	----	----	<0.2	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	----	----	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	----	----	<0.2	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Parathion	56-38-2	0.2	mg/kg	----	<0.2	----	----	<0.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP02_0.5-0.6	TP08_2.0-2.2	TP23_0.6 - 1.0	TP24_0.4 - 0.6	TP29_0 - 0.1
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-018	ES2407624-019	ES2407624-022	ES2407624-023	ES2407624-025	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	<0.05	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	<0.05	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP02_0.5-0.6	TP08_2.0-2.2	TP23_0.6 - 1.0	TP24_0.4 - 0.6	TP29_0 - 0.1
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-018	ES2407624-019	ES2407624-022	ES2407624-023	ES2407624-025	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP02_0.5-0.6	TP08_2.0-2.2	TP23_0.6 - 1.0	TP24_0.4 - 0.6	TP29_0 - 0.1
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-018	ES2407624-019	ES2407624-022	ES2407624-023	ES2407624-025	
				Result	Result	Result	Result	Result	
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%	----	84.4	----	----	92.9	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	106	----	----	92.9	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	77.8	86.1	72.0	86.4	82.2	
2-Chlorophenol-D4	93951-73-6	0.5	%	70.0	81.5	60.7	83.1	79.6	
2,4,6-Tribromophenol	118-79-6	0.5	%	51.8	78.9	61.6	85.9	71.0	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	91.5	88.8	85.6	87.7	85.9	
Anthracene-d10	1719-06-8	0.5	%	102	97.6	97.4	94.5	96.6	
4-Terphenyl-d14	1718-51-0	0.5	%	91.3	89.2	86.5	87.4	84.5	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	120	120	74.4	76.2	87.7	
Toluene-D8	2037-26-5	0.2	%	85.1	87.2	79.0	80.6	95.7	
4-Bromofluorobenzene	460-00-4	0.2	%	80.1	78.3	82.4	89.8	99.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)		Sample ID		TP12_0.5 - 1.0	TP13_0 - 0.5	FD7	TP01_0.5 - 0.6	TP23_0.25 - 0.5
Sampling date / time		29-Feb-2024 00:00		29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-028	ES2407624-029	ES2407624-030	ES2407624-031	ES2407624-033
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	24.4	17.3	22.7	16.2	13.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	----	<5	<5	6
Cadmium	7440-43-9	1	mg/kg	<1	----	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	36	----	15	87	76
Copper	7440-50-8	5	mg/kg	17	----	9	21	35
Lead	7439-92-1	5	mg/kg	8	----	6	8	12
Nickel	7440-02-0	2	mg/kg	17	----	4	13	9
Zinc	7440-66-6	5	mg/kg	22	----	11	17	28
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)								
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5
EG049: Trivalent Chromium								
Trivalent Chromium	16065-83-1	2	mg/kg	36	----	15	87	76
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	<0.05	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	<0.05	----	----
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	<0.05	----	----
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	<0.05	----	----
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	<0.05	----	----
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	<0.05	----	----
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	<0.05	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	<0.05	----	----
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	<0.05	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	<0.05	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	<0.05	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP12_0.5 - 1.0	TP13_0 - 0.5	FD7	TP01_0.5 - 0.6	TP23_0.25 - 0.5
Sampling date / time					29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-028	ES2407624-029	ES2407624-030	ES2407624-031	ES2407624-033	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	<0.05	----	----	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	<0.05	----	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	<0.05	----	----	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	<0.05	----	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	<0.05	----	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	<0.05	----	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	<0.05	----	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	<0.05	----	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	<0.05	----	----	
4,4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	<0.2	----	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	<0.05	----	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	<0.2	----	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	<0.05	----	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	<0.05	<0.05	----	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	<0.05	----	----	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	<0.05	----	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	<0.2	----	----	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	<0.05	----	----	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	<0.05	----	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	<0.05	----	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	<0.2	----	----	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	<0.05	----	----	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	<0.05	----	----	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	<0.05	----	----	
Parathion	56-38-2	0.2	mg/kg	----	<0.2	<0.2	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP12_0.5 - 1.0	TP13_0 - 0.5	FD7	TP01_0.5 - 0.6	TP23_0.25 - 0.5
Sampling date / time					29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-028	ES2407624-029	ES2407624-030	ES2407624-031	ES2407624-033	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	<0.05	----	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	<0.05	----	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	<0.05	----	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	<0.05	----	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	<0.05	----	----	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	<0.05	----	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	<0.05	----	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	<0.05	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP12_0.5 - 1.0	TP13_0 - 0.5	FD7	TP01_0.5 - 0.6	TP23_0.25 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-028	ES2407624-029	ES2407624-030	ES2407624-031	ES2407624-033	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	----	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	----	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	----	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	----	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	----	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	----	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	----	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	----	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	----	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	<50	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	----	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP12_0.5 - 1.0	TP13_0 - 0.5	FD7	TP01_0.5 - 0.6	TP23_0.25 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-028	ES2407624-029	ES2407624-030	ES2407624-031	ES2407624-033	
				Result	Result	Result	Result	Result	
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%	----	99.5	80.8	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	99.2	82.5	----	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	88.2	----	86.5	88.4	83.1	
2-Chlorophenol-D4	93951-73-6	0.5	%	81.7	----	79.0	83.7	80.0	
2,4,6-Tribromophenol	118-79-6	0.5	%	86.9	----	84.0	83.0	76.6	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	89.8	----	87.7	89.8	88.6	
Anthracene-d10	1719-06-8	0.5	%	102	----	98.9	100	101	
4-Terphenyl-d14	1718-51-0	0.5	%	91.5	----	89.6	89.8	89.6	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	77.8	----	67.4	71.3	79.2	
Toluene-D8	2037-26-5	0.2	%	84.0	----	74.6	76.0	83.4	
4-Bromofluorobenzene	460-00-4	0.2	%	93.8	----	84.5	78.3	85.9	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	14.8	13.0	----	14.5	14.7	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	No	----	----	
Asbestos (Trace)	1332-21-4	-	-	----	----	No	----	----	
Asbestos Type	1332-21-4	-	--	----	----	-	----	----	
Synthetic Mineral Fibre	----	-	--	----	----	No	----	----	
Organic Fibre	----	-	--	----	----	No	----	----	
Sample weight (dry)	----	0.01	g	----	----	457	----	----	
APPROVED IDENTIFIER:	----	-	--	----	----	B.SCHRADER	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	6	----	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	<1	<1	
Chromium	7440-47-3	2	mg/kg	71	49	----	58	84	
Copper	7440-50-8	5	mg/kg	41	33	----	27	29	
Lead	7439-92-1	5	mg/kg	26	49	----	18	27	
Nickel	7440-02-0	2	mg/kg	10	13	----	12	21	
Zinc	7440-66-6	5	mg/kg	41	50	----	20	18	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	0.6	<0.5	----	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	70	49	----	58	84	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	----	<0.1	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	0.59	0.20	----	<0.05	<0.05	
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	0.59	0.20	----	<0.05	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	----	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00
Compound	CAS Number	LOR	Unit		ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	----	----	----	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg		----	----	----	----	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg		----	----	----	----	<0.5
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	----	----	----	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	----	----	----	<0.5
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	----	----	----	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	----	----	----	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	----	----	----	<0.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
n-Butylbenzene	104-51-8	0.5	mg/kg	----	----	----	----	<0.5	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg	----	----	----	----	<5	
2-Butanone (MEK)	78-93-3	5	mg/kg	----	----	----	----	<5	
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	----	----	----	----	<5	
2-Hexanone (MBK)	591-78-6	5	mg/kg	----	----	----	----	<5	
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg	----	----	----	----	<0.5	
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	0.5	mg/kg	----	----	----	----	<0.5	
1,2-Dichloropropane	78-87-5	0.5	mg/kg	----	----	----	----	<0.5	
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	----	----	----	<0.5	
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	----	----	----	<0.5	
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	----	----	----	<0.5	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	----	----	----	<5	
Chloromethane	74-87-3	5	mg/kg	----	----	----	----	<5	
Vinyl chloride	75-01-4	5	mg/kg	----	----	----	----	<5	
Bromomethane	74-83-9	5	mg/kg	----	----	----	----	<5	
Chloroethane	75-00-3	5	mg/kg	----	----	----	----	<5	
Trichlorofluoromethane	75-69-4	5	mg/kg	----	----	----	----	<5	
1,1-Dichloroethene	75-35-4	0.5	mg/kg	----	----	----	----	<0.5	
Iodomethane	74-88-4	0.5	mg/kg	----	----	----	----	<0.5	
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	----	----	----	----	<0.5	
1,1-Dichloroethane	75-34-3	0.5	mg/kg	----	----	----	----	<0.5	
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	----	----	----	----	<0.5	
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	----	----	----	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP074E: Halogenated Aliphatic Compounds - Continued									
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	----	----	----	<0.5	
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	----	----	----	<0.5	
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	----	----	----	<0.5	
Trichloroethene	79-01-6	0.5	mg/kg	----	----	----	----	<0.5	
Dibromomethane	74-95-3	0.5	mg/kg	----	----	----	----	<0.5	
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	----	----	----	<0.5	
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	----	----	----	<0.5	
Tetrachloroethene	127-18-4	0.5	mg/kg	----	----	----	----	<0.5	
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	----	----	----	<0.5	
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	----	----	----	<0.5	
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	----	----	----	<0.5	
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	----	----	----	<0.5	
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	----	----	----	<0.5	
Pentachloroethane	76-01-7	0.5	mg/kg	----	----	----	----	<0.5	
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	----	----	----	<0.5	
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	----	----	----	<0.5	
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	----	----	----	----	<0.5	
Bromobenzene	108-86-1	0.5	mg/kg	----	----	----	----	<0.5	
2-Chlorotoluene	95-49-8	0.5	mg/kg	----	----	----	----	<0.5	
4-Chlorotoluene	106-43-4	0.5	mg/kg	----	----	----	----	<0.5	
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	----	----	----	----	<0.5	
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	----	----	----	----	<0.5	
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	----	----	----	----	<0.5	
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	----	----	----	----	<0.5	
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	----	----	----	----	<0.5	
EP074G: Trihalomethanes									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP074G: Trihalomethanes - Continued									
Chloroform	67-66-3	0.5	mg/kg	----	----	----	----	<0.5	
Bromodichloromethane	75-27-4	0.5	mg/kg	----	----	----	----	<0.5	
Dibromochloromethane	124-48-1	0.5	mg/kg	----	----	----	----	<0.5	
Bromoform	75-25-2	0.5	mg/kg	----	----	----	----	<0.5	
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	----	----	----	----	<0.5	
2-Chlorophenol	95-57-8	0.5	mg/kg	----	----	----	----	<0.5	
2-Methylphenol	95-48-7	0.5	mg/kg	----	----	----	----	<0.5	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	----	----	<1	
2-Nitrophenol	88-75-5	0.5	mg/kg	----	----	----	----	<0.5	
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	----	----	----	----	<0.5	
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	----	----	----	----	<0.5	
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	----	----	----	----	<0.5	
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	----	----	----	<0.5	
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	----	----	----	----	<0.5	
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	----	----	----	----	<0.5	
Pentachlorophenol	87-86-5	2	mg/kg	----	----	----	----	<2	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	----	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	----	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	----	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	----	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	----	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	----	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	----	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	----	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	----	<50	<50	
EP080: BTEXN									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	<1	<1	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	----	99.5	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	89.2	90.3	----	86.5	92.2	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	137	104	----	96.4	90.3	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.5	%	----	----	----	----	83.2	
Toluene-D8	2037-26-5	0.5	%	----	----	----	----	92.3	
4-Bromofluorobenzene	460-00-4	0.5	%	----	----	----	----	89.4	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	74.1	78.7	----	77.8	72.5	
2-Chlorophenol-D4	93951-73-6	0.5	%	66.1	75.9	----	74.2	70.2	
2,4,6-Tribromophenol	118-79-6	0.5	%	75.2	78.0	----	78.5	64.9	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	75.1	82.6	----	82.7	79.4	
Anthracene-d10	1719-06-8	0.5	%	93.5	93.2	----	93.0	89.4	
4-Terphenyl-d14	1718-51-0	0.5	%	83.2	82.9	----	82.3	79.8	
EP080S: TPH(V)/BTEX Surrogates									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP01_0 - 0.2	TP02_0 - 0.2	TP23_0 - 0.2	TP03_0 - 0.2	TP04_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-037	ES2407624-041	ES2407624-042	ES2407624-043	ES2407624-045	
				Result	Result	Result	Result	Result	
EP080S: TPH(V)/BTEX Surrogates - Continued									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	94.0	81.1	----	89.3	82.5	
Toluene-D8	2037-26-5	0.2	%	101	85.9	----	94.7	87.3	
4-Bromofluorobenzene	460-00-4	0.2	%	104	85.6	----	99.5	91.7	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	7.7	14.6	8.8	9.9	28.5	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	<5	23	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	26	58	16	93	22	
Copper	7440-50-8	5	mg/kg	24	17	48	28	18	
Lead	7439-92-1	5	mg/kg	13	8	122	15	10	
Nickel	7440-02-0	2	mg/kg	11	13	6	12	6	
Zinc	7440-66-6	5	mg/kg	19	15	22	18	16	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	26	58	16	93	22	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Aldrin	309-00-2	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
^ Total Chlordane (sum)	----	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
trans-Chlordane	5103-74-2	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Endrin	72-20-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	
Dimethoate	60-51-5	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Diazinon	333-41-5	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	
Malathion	121-75-5	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Fenthion	55-38-9	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Parathion	56-38-2	0.2	mg/kg	----	----	<0.2	<0.2	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	<0.05	<0.05	
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg	----	----	<0.5	----	----	
Isopropylbenzene	98-82-8	0.5	mg/kg	----	----	<0.5	----	----	
n-Propylbenzene	103-65-1	0.5	mg/kg	----	----	<0.5	----	----	
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	----	----	<0.5	----	----	
sec-Butylbenzene	135-98-8	0.5	mg/kg	----	----	<0.5	----	----	
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	----	----	<0.5	----	----	
tert-Butylbenzene	98-06-6	0.5	mg/kg	----	----	<0.5	----	----	
p-Isopropyltoluene	99-87-6	0.5	mg/kg	----	----	<0.5	----	----	
n-Butylbenzene	104-51-8	0.5	mg/kg	----	----	<0.5	----	----	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg	----	----	<5	----	----	
2-Butanone (MEK)	78-93-3	5	mg/kg	----	----	<5	----	----	
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	----	----	<5	----	----	
2-Hexanone (MBK)	591-78-6	5	mg/kg	----	----	<5	----	----	
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg	----	----	<0.5	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg	----	----	<0.5	----	----	
1.2-Dichloropropane	78-87-5	0.5	mg/kg	----	----	<0.5	----	----	
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	----	<0.5	----	----	
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	----	<0.5	----	----	
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	----	<0.5	----	----	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	----	<5	----	----	
Chloromethane	74-87-3	5	mg/kg	----	----	<5	----	----	
Vinyl chloride	75-01-4	5	mg/kg	----	----	<5	----	----	
Bromomethane	74-83-9	5	mg/kg	----	----	<5	----	----	
Chloroethane	75-00-3	5	mg/kg	----	----	<5	----	----	
Trichlorofluoromethane	75-69-4	5	mg/kg	----	----	<5	----	----	
1.1-Dichloroethene	75-35-4	0.5	mg/kg	----	----	<0.5	----	----	
Iodomethane	74-88-4	0.5	mg/kg	----	----	<0.5	----	----	
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	----	----	<0.5	----	----	
1.1-Dichloroethane	75-34-3	0.5	mg/kg	----	----	<0.5	----	----	
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	----	----	<0.5	----	----	
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	----	----	<0.5	----	----	
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	----	<0.5	----	----	
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	----	<0.5	----	----	
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	----	<0.5	----	----	
Trichloroethene	79-01-6	0.5	mg/kg	----	----	<0.5	----	----	
Dibromomethane	74-95-3	0.5	mg/kg	----	----	<0.5	----	----	
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	----	<0.5	----	----	
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	----	<0.5	----	----	
Tetrachloroethene	127-18-4	0.5	mg/kg	----	----	<0.5	----	----	
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	----	<0.5	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP074E: Halogenated Aliphatic Compounds - Continued									
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	----	<0.5	----	----	
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	----	<0.5	----	----	
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	----	<0.5	----	----	
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	----	<0.5	----	----	
Pentachloroethane	76-01-7	0.5	mg/kg	----	----	<0.5	----	----	
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	----	<0.5	----	----	
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	----	<0.5	----	----	
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	----	----	<0.5	----	----	
Bromobenzene	108-86-1	0.5	mg/kg	----	----	<0.5	----	----	
2-Chlorotoluene	95-49-8	0.5	mg/kg	----	----	<0.5	----	----	
4-Chlorotoluene	106-43-4	0.5	mg/kg	----	----	<0.5	----	----	
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	----	----	<0.5	----	----	
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	----	----	<0.5	----	----	
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	----	----	<0.5	----	----	
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	----	----	<0.5	----	----	
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	----	----	<0.5	----	----	
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg	----	----	<0.5	----	----	
Bromodichloromethane	75-27-4	0.5	mg/kg	----	----	<0.5	----	----	
Dibromochloromethane	124-48-1	0.5	mg/kg	----	----	<0.5	----	----	
Bromoform	75-25-2	0.5	mg/kg	----	----	<0.5	----	----	
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	----	----	<0.5	----	----	
2-Chlorophenol	95-57-8	0.5	mg/kg	----	----	<0.5	----	----	
2-Methylphenol	95-48-7	0.5	mg/kg	----	----	<0.5	----	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	<1	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP075(SIM)A: Phenolic Compounds - Continued									
2-Nitrophenol	88-75-5	0.5	mg/kg	----	----	<0.5	----	----	
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	----	----	<0.5	----	----	
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	----	----	<0.5	----	----	
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	----	----	<0.5	----	----	
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	----	<0.5	----	----	
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	----	----	<0.5	----	----	
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	----	----	<0.5	----	----	
Pentachlorophenol	87-86-5	2	mg/kg	----	----	<2	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP066S: PCB Surrogate									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP05_0 - 0.2	TP09_0.5 - 0.6	TP10_0 - 0.2	FD1	TP13_0 - 0.2
Sampling date / time				28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-046	ES2407624-048	ES2407624-049	ES2407624-052	ES2407624-056	
				Result	Result	Result	Result	Result	
EP066S: PCB Surrogate - Continued									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	122	----	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	----	109	94.9	88.6	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	----	111	105	90.0	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.5	%	----	----	83.9	----	----	
Toluene-D8	2037-26-5	0.5	%	----	----	95.1	----	----	
4-Bromofluorobenzene	460-00-4	0.5	%	----	----	90.5	----	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	71.2	80.3	65.9	73.1	73.5	
2-Chlorophenol-D4	93951-73-6	0.5	%	70.6	68.5	58.0	60.1	65.6	
2,4,6-Tribromophenol	118-79-6	0.5	%	67.3	79.2	64.3	56.0	81.3	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	79.6	76.5	72.0	75.9	77.7	
Anthracene-d10	1719-06-8	0.5	%	91.0	96.3	95.2	90.0	95.3	
4-Terphenyl-d14	1718-51-0	0.5	%	81.1	84.9	83.4	78.2	83.3	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	85.1	68.4	83.0	73.7	67.3	
Toluene-D8	2037-26-5	0.2	%	89.1	79.2	90.0	85.7	76.0	
4-Bromofluorobenzene	460-00-4	0.2	%	97.8	86.5	94.0	88.7	81.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	15.3	16.7	15.6	8.3	20.3	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	----	No	----	
Asbestos (Trace)	1332-21-4	-	-	----	----	----	No	----	
Asbestos Type	1332-21-4	-	--	----	----	----	-	----	
Synthetic Mineral Fibre	----	-	--	----	----	----	No	----	
Organic Fibre	----	-	--	----	----	----	No	----	
Sample weight (dry)	----	0.01	g	----	----	----	514	----	
APPROVED IDENTIFIER:	----	-	--	----	----	----	B.SCHRADER	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	12	<5	9	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	19	25	44	50	18	
Copper	7440-50-8	5	mg/kg	10	18	17	24	11	
Lead	7439-92-1	5	mg/kg	18	49	8	44	18	
Nickel	7440-02-0	2	mg/kg	9	7	12	14	4	
Zinc	7440-66-6	5	mg/kg	14	18	21	21	11	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	19	25	44	50	18	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	----	<0.1	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	----	----	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	----	<0.05	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	----	----	----	<0.05	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	----	----	----	<0.05	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
Aldrin	309-00-2	0.05	mg/kg	----	----	----	<0.05	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	----	<0.05	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	----	----	<0.05	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	----	----	<0.05	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	----	<0.05	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	----	----	----	<0.05	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	----	<0.05	<0.05	
Endrin	72-20-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	----	----	<0.05	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	----	----	<0.05	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	----	----	<0.05	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	----	----	----	<0.2	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	----	----	----	<0.05	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	----	----	----	<0.2	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	----	----	<0.05	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	----	----	----	<0.05	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	----	----	<0.05	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	----	----	<0.05	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	----	----	----	<0.2	<0.2	
Dimethoate	60-51-5	0.05	mg/kg	----	----	----	<0.05	<0.05	
Diazinon	333-41-5	0.05	mg/kg	----	----	----	<0.05	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	----	----	<0.05	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	----	----	----	<0.2	<0.2	
Malathion	121-75-5	0.05	mg/kg	----	----	----	<0.05	<0.05	
Fenthion	55-38-9	0.05	mg/kg	----	----	----	<0.05	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	----	----	<0.05	<0.05	
Parathion	56-38-2	0.2	mg/kg	----	----	----	<0.2	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	<0.05	
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	<0.05	
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg	----	----	----	----	<0.5	
Isopropylbenzene	98-82-8	0.5	mg/kg	----	----	----	----	<0.5	
n-Propylbenzene	103-65-1	0.5	mg/kg	----	----	----	----	<0.5	
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	----	----	----	----	<0.5	
sec-Butylbenzene	135-98-8	0.5	mg/kg	----	----	----	----	<0.5	
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	----	----	----	----	<0.5	
tert-Butylbenzene	98-06-6	0.5	mg/kg	----	----	----	----	<0.5	
p-Isopropyltoluene	99-87-6	0.5	mg/kg	----	----	----	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
n-Butylbenzene	104-51-8	0.5	mg/kg	----	----	----	----	<0.5	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg	----	----	----	----	<5	
2-Butanone (MEK)	78-93-3	5	mg/kg	----	----	----	----	<5	
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	----	----	----	----	<5	
2-Hexanone (MBK)	591-78-6	5	mg/kg	----	----	----	----	<5	
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg	----	----	----	----	<0.5	
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	0.5	mg/kg	----	----	----	----	<0.5	
1,2-Dichloropropane	78-87-5	0.5	mg/kg	----	----	----	----	<0.5	
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	----	----	----	<0.5	
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	----	----	----	<0.5	
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	----	----	----	<0.5	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	----	----	----	<5	
Chloromethane	74-87-3	5	mg/kg	----	----	----	----	<5	
Vinyl chloride	75-01-4	5	mg/kg	----	----	----	----	<5	
Bromomethane	74-83-9	5	mg/kg	----	----	----	----	<5	
Chloroethane	75-00-3	5	mg/kg	----	----	----	----	<5	
Trichlorofluoromethane	75-69-4	5	mg/kg	----	----	----	----	<5	
1,1-Dichloroethene	75-35-4	0.5	mg/kg	----	----	----	----	<0.5	
Iodomethane	74-88-4	0.5	mg/kg	----	----	----	----	<0.5	
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	----	----	----	----	<0.5	
1,1-Dichloroethane	75-34-3	0.5	mg/kg	----	----	----	----	<0.5	
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	----	----	----	----	<0.5	
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	----	----	----	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	ES2407624-064
				Result	Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	----	----	----	----	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	----	----	----	----	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	----	----	----	----	<0.5
Trichloroethene	79-01-6	0.5	mg/kg	----	----	----	----	----	<0.5
Dibromomethane	74-95-3	0.5	mg/kg	----	----	----	----	----	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	----	----	----	----	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	----	----	----	----	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	----	----	----	----	----	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	----	----	----	----	<0.5
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	----	----	----	----	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	----	----	----	----	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	----	----	----	----	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	----	----	----	----	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg	----	----	----	----	----	<0.5
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	----	----	----	----	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	----	----	----	----	<0.5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	----	----	----	----	----	<0.5
Bromobenzene	108-86-1	0.5	mg/kg	----	----	----	----	----	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg	----	----	----	----	----	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg	----	----	----	----	----	<0.5
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	----	----	----	----	----	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	----	----	----	----	----	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	----	----	----	----	----	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	----	----	----	----	----	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	----	----	----	----	----	<0.5
EP074G: Trihalomethanes									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	
				Result	Result	Result	Result	Result	
EP074G: Trihalomethanes - Continued									
Chloroform	67-66-3	0.5	mg/kg	----	----	----	----	<0.5	
Bromodichloromethane	75-27-4	0.5	mg/kg	----	----	----	----	<0.5	
Dibromochloromethane	124-48-1	0.5	mg/kg	----	----	----	----	<0.5	
Bromoform	75-25-2	0.5	mg/kg	----	----	----	----	<0.5	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	ES2407624-064
				Result	Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	<10
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	----	----	111
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	92.5	101	
EP068T: Organophosphorus Pesticide Surrogate									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0.5_1.0	TP14_0.5 - 1.0	TP15_0.5 - 1.0	TP16_0 - 0.5	TP15_0 - 0.5
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-057	ES2407624-059	ES2407624-060	ES2407624-061	ES2407624-064	ES2407624-064
				Result	Result	Result	Result	Result	Result
EP068T: Organophosphorus Pesticide Surrogate - Continued									
DEF	78-48-8	0.05	%	----	----	----	97.6	104	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.5	%	----	----	----	----	78.0	
Toluene-D8	2037-26-5	0.5	%	----	----	----	----	87.2	
4-Bromofluorobenzene	460-00-4	0.5	%	----	----	----	----	83.0	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	79.5	77.2	81.1	78.4	85.6	
2-Chlorophenol-D4	93951-73-6	0.5	%	74.8	71.3	74.0	72.7	80.1	
2,4,6-Tribromophenol	118-79-6	0.5	%	78.4	75.9	84.4	73.3	85.5	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	80.1	81.6	85.2	86.5	86.3	
Anthracene-d10	1719-06-8	0.5	%	91.3	92.1	100	98.2	101	
4-Terphenyl-d14	1718-51-0	0.5	%	80.1	81.2	88.2	87.1	87.7	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	66.0	73.2	65.8	65.4	77.1	
Toluene-D8	2037-26-5	0.2	%	70.7	82.3	68.8	70.1	82.5	
4-Bromofluorobenzene	460-00-4	0.2	%	76.9	87.6	77.5	81.9	85.6	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time				29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	19.6	23.4	10.9	11.6	16.0	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	----	No	----	
Asbestos (Trace)	1332-21-4	-	-	----	----	----	No	----	
Asbestos Type	1332-21-4	-	--	----	----	----	-	----	
Synthetic Mineral Fibre	----	-	--	----	----	----	No	----	
Organic Fibre	----	-	--	----	----	----	No	----	
Sample weight (dry)	----	0.01	g	----	----	----	545	----	
APPROVED IDENTIFIER:	----	-	--	----	----	----	B.SCHRADER	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	<5	8	22	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	25	29	153	295	55	
Copper	7440-50-8	5	mg/kg	10	9	42	36	23	
Lead	7439-92-1	5	mg/kg	6	7	18	13	13	
Nickel	7440-02-0	2	mg/kg	6	4	28	257	14	
Zinc	7440-66-6	5	mg/kg	13	10	24	33	18	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	25	29	153	295	55	
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	<0.1	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	<0.05	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	<0.05	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	<0.05	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	----	<0.05	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	<0.05	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
4,4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	----	<0.2	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	----	<0.2	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	----	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	----	<0.2	----	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	----	<0.05	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	----	<0.2	----	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Parathion	56-38-2	0.2	mg/kg	----	<0.2	----	<0.2	----	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	<0.05	----	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	<0.05	----	
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg	----	----	----	<0.5	----	
Isopropylbenzene	98-82-8	0.5	mg/kg	----	----	----	<0.5	----	
n-Propylbenzene	103-65-1	0.5	mg/kg	----	----	----	<0.5	----	
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	----	----	----	<0.5	----	
sec-Butylbenzene	135-98-8	0.5	mg/kg	----	----	----	<0.5	----	
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	----	----	----	<0.5	----	
tert-Butylbenzene	98-06-6	0.5	mg/kg	----	----	----	<0.5	----	
p-Isopropyltoluene	99-87-6	0.5	mg/kg	----	----	----	<0.5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP074A: Monocyclic Aromatic Hydrocarbons - Continued									
n-Butylbenzene	104-51-8	0.5	mg/kg	----	----	----	<0.5	----	
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg	----	----	----	<5	----	
2-Butanone (MEK)	78-93-3	5	mg/kg	----	----	----	<5	----	
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	----	----	----	<5	----	
2-Hexanone (MBK)	591-78-6	5	mg/kg	----	----	----	<5	----	
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg	----	----	----	<0.5	----	
EP074D: Fumigants									
2,2-Dichloropropane	594-20-7	0.5	mg/kg	----	----	----	<0.5	----	
1,2-Dichloropropane	78-87-5	0.5	mg/kg	----	----	----	<0.5	----	
cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	----	----	----	<0.5	----	
trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	----	----	----	<0.5	----	
1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	----	----	----	<0.5	----	
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg	----	----	----	<5	----	
Chloromethane	74-87-3	5	mg/kg	----	----	----	<5	----	
Vinyl chloride	75-01-4	5	mg/kg	----	----	----	<5	----	
Bromomethane	74-83-9	5	mg/kg	----	----	----	<5	----	
Chloroethane	75-00-3	5	mg/kg	----	----	----	<5	----	
Trichlorofluoromethane	75-69-4	5	mg/kg	----	----	----	<5	----	
1,1-Dichloroethene	75-35-4	0.5	mg/kg	----	----	----	<0.5	----	
Iodomethane	74-88-4	0.5	mg/kg	----	----	----	<0.5	----	
trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	----	----	----	<0.5	----	
1,1-Dichloroethane	75-34-3	0.5	mg/kg	----	----	----	<0.5	----	
cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	----	----	----	<0.5	----	
1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	----	----	----	<0.5	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP074E: Halogenated Aliphatic Compounds - Continued									
1.1-Dichloropropylene	563-58-6	0.5	mg/kg	----	----	----	<0.5	----	
Carbon Tetrachloride	56-23-5	0.5	mg/kg	----	----	----	<0.5	----	
1.2-Dichloroethane	107-06-2	0.5	mg/kg	----	----	----	<0.5	----	
Trichloroethene	79-01-6	0.5	mg/kg	----	----	----	<0.5	----	
Dibromomethane	74-95-3	0.5	mg/kg	----	----	----	<0.5	----	
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	----	----	----	<0.5	----	
1.3-Dichloropropane	142-28-9	0.5	mg/kg	----	----	----	<0.5	----	
Tetrachloroethene	127-18-4	0.5	mg/kg	----	----	----	<0.5	----	
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	----	----	----	<0.5	----	
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	----	----	----	<0.5	----	
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	----	----	----	<0.5	----	
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	----	----	----	<0.5	----	
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	----	----	----	<0.5	----	
Pentachloroethane	76-01-7	0.5	mg/kg	----	----	----	<0.5	----	
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	----	----	----	<0.5	----	
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	----	----	<0.5	----	
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg	----	----	----	<0.5	----	
Bromobenzene	108-86-1	0.5	mg/kg	----	----	----	<0.5	----	
2-Chlorotoluene	95-49-8	0.5	mg/kg	----	----	----	<0.5	----	
4-Chlorotoluene	106-43-4	0.5	mg/kg	----	----	----	<0.5	----	
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	----	----	----	<0.5	----	
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	----	----	----	<0.5	----	
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	----	----	----	<0.5	----	
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	----	----	----	<0.5	----	
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	----	----	----	<0.5	----	
EP074G: Trihalomethanes									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP074G: Trihalomethanes - Continued									
Chloroform	67-66-3	0.5	mg/kg	----	----	----	<0.5	----	
Bromodichloromethane	75-27-4	0.5	mg/kg	----	----	----	<0.5	----	
Dibromochloromethane	124-48-1	0.5	mg/kg	----	----	----	<0.5	----	
Bromoform	75-25-2	0.5	mg/kg	----	----	----	<0.5	----	
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg	----	----	----	<0.5	----	
2-Chlorophenol	95-57-8	0.5	mg/kg	----	----	----	<0.5	----	
2-Methylphenol	95-48-7	0.5	mg/kg	----	----	----	<0.5	----	
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	----	<1	----	
2-Nitrophenol	88-75-5	0.5	mg/kg	----	----	----	<0.5	----	
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	----	----	----	<0.5	----	
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	----	----	----	<0.5	----	
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	----	----	----	<0.5	----	
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	----	----	<0.5	----	
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	----	----	----	<0.5	----	
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	----	----	----	<0.5	----	
Pentachlorophenol	87-86-5	2	mg/kg	----	----	----	<2	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	0.6
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	1.2
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	<50
EP080: BTEXN									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time					29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	<1
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	----	----	----	<0.0002	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	----	----	----	<0.0002	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	----	----	----	<0.0002	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	----	----	----	<0.001	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	----	----	----	<0.0002	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	----	----	----	<0.0002	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	----	----	----	<0.0002	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	----	----	----	<0.0002	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	----	----	----	<0.0005	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	----	----	----	<0.0005	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	----	----	----	<0.0005	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	----	----	----	<0.0005	----	----
EP231P: PFAS Sums									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP18_0.5 - 0.6	TP24_0 - 0.2	TP16_0.5 - 1.0	TP11_0.0 - 0.2	TP28_0.5 - 1.0
Sampling date / time				29-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-065	ES2407624-066	ES2407624-068	ES2407624-072	ES2407624-074	
				Result	Result	Result	Result	Result	
EP231P: PFAS Sums - Continued									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	----	----	----	<0.0002	----	
Sum of PFAS (WA DER List)	----	0.0002	mg/kg	----	----	----	<0.0002	----	
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	82.6	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	109	----	90.2	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	112	----	91.0	----	
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.5	%	----	----	----	78.1	----	
Toluene-D8	2037-26-5	0.5	%	----	----	----	83.2	----	
4-Bromofluorobenzene	460-00-4	0.5	%	----	----	----	80.2	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	71.9	86.0	71.6	81.9	72.3	
2-Chlorophenol-D4	93951-73-6	0.5	%	68.3	77.6	69.2	78.4	67.3	
2,4,6-Tribromophenol	118-79-6	0.5	%	80.0	80.6	72.3	77.3	74.5	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	71.8	87.3	80.0	83.4	74.5	
Anthracene-d10	1719-06-8	0.5	%	97.9	99.4	94.7	95.1	91.9	
4-Terphenyl-d14	1718-51-0	0.5	%	86.5	86.5	82.2	83.4	80.1	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	67.7	64.2	78.4	104	67.6	
Toluene-D8	2037-26-5	0.2	%	73.6	73.9	86.1	109	72.4	
4-Bromofluorobenzene	460-00-4	0.2	%	82.6	85.0	90.8	106	81.1	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	----	----	----	112	----	
13C8-PFOA	----	0.0002	%	----	----	----	104	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0.5 - 0.7	TP10_0.5 - 0.6	FD10	TP12_0 - 0.2	TP26_0.5 - 0.6
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-077	ES2407624-078	ES2407624-079	ES2407624-081	ES2407624-083	
				Result	Result	Result	Result	Result	
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit	----	6.2	----	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	15.3	13.2	27.2	9.1	11.1	
ED007: Exchangeable Cations									
Exchangeable Calcium	----	0.1	meq/100g	----	5.8	----	----	----	
Exchangeable Magnesium	----	0.1	meq/100g	----	3.2	----	----	----	
Exchangeable Potassium	----	0.1	meq/100g	----	0.2	----	----	----	
Exchangeable Sodium	----	0.1	meq/100g	----	0.3	----	----	----	
Cation Exchange Capacity	----	0.1	meq/100g	----	9.5	----	----	----	
Exchangeable Sodium Percent	----	0.1	%	----	3.0	----	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Iron	7439-89-6	50	mg/kg	----	22200	----	----	----	
Arsenic	7440-38-2	5	mg/kg	6	<5	<5	10	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	123	38	31	29	55	
Copper	7440-50-8	5	mg/kg	26	23	19	20	31	
Lead	7439-92-1	5	mg/kg	15	12	25	44	10	
Nickel	7440-02-0	2	mg/kg	16	17	7	7	8	
Zinc	7440-66-6	5	mg/kg	19	24	55	21	27	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<2.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	123	38	31	29	55	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	----	<0.05	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0.5 - 0.7	TP10_0.5 - 0.6	FD10	TP12_0 - 0.2	TP26_0.5 - 0.6
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-077	ES2407624-078	ES2407624-079	ES2407624-081	ES2407624-083	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	<0.05	<0.05	----	
beta-BHC	319-85-7	0.05	mg/kg	----	----	<0.05	<0.05	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	----	<0.05	<0.05	----	
delta-BHC	319-86-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
Heptachlor	76-44-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
Aldrin	309-00-2	0.05	mg/kg	----	----	<0.05	<0.05	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	<0.05	<0.05	----	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	----	<0.05	<0.05	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	----	<0.05	<0.05	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	<0.05	<0.05	----	
Dieldrin	60-57-1	0.05	mg/kg	----	----	<0.05	<0.05	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	----	<0.05	<0.05	----	
Endrin	72-20-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	----	<0.05	<0.05	----	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	----	<0.05	<0.05	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	----	<0.05	<0.05	----	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
4,4'-DDT	50-29-3	0.2	mg/kg	----	----	<0.2	<0.2	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	----	<0.05	<0.05	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	----	<0.2	<0.2	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	----	<0.05	<0.05	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	----	----	<0.05	<0.05	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	----	<0.05	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0.5 - 0.7	TP10_0.5 - 0.6	FD10	TP12_0 - 0.2	TP26_0.5 - 0.6
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-077	ES2407624-078	ES2407624-079	ES2407624-081	ES2407624-083	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	----	<0.05	<0.05	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	----	<0.2	<0.2	----	
Dimethoate	60-51-5	0.05	mg/kg	----	----	<0.05	<0.05	----	
Diazinon	333-41-5	0.05	mg/kg	----	----	<0.05	<0.05	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	----	<0.05	<0.05	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	----	<0.2	<0.2	----	
Malathion	121-75-5	0.05	mg/kg	----	----	<0.05	<0.05	----	
Fenthion	55-38-9	0.05	mg/kg	----	----	<0.05	<0.05	----	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	----	<0.05	<0.05	----	
Parathion	56-38-2	0.2	mg/kg	----	----	<0.2	<0.2	----	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	<0.05	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	<0.05	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	<0.05	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	<0.05	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	<0.05	----	
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	<0.05	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	<0.05	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	<0.05	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0.5 - 0.7	TP10_0.5 - 0.6	FD10	TP12_0 - 0.2	TP26_0.5 - 0.6
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-077	ES2407624-078	ES2407624-079	ES2407624-081	ES2407624-083	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
[^] Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
[^] Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
[^] Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
[^] C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP27_0.5 - 0.7	TP10_0.5 - 0.6	FD10	TP12_0 - 0.2	TP26_0.5 - 0.6
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-077	ES2407624-078	ES2407624-079	ES2407624-081	ES2407624-083	
				Result	Result	Result	Result	Result	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	----	80.9	104	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	----	76.7	84.0	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	69.9	83.9	83.1	90.0	81.3	
2-Chlorophenol-D4	93951-73-6	0.5	%	65.5	82.1	80.7	86.9	75.7	
2,4,6-Tribromophenol	118-79-6	0.5	%	66.6	78.3	76.4	85.2	76.3	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	75.2	82.8	79.5	86.1	80.3	
Anthracene-d10	1719-06-8	0.5	%	91.2	94.2	89.9	95.4	95.0	
4-Terphenyl-d14	1718-51-0	0.5	%	79.1	84.8	80.6	87.1	83.9	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	73.1	81.5	75.8	77.9	77.6	
Toluene-D8	2037-26-5	0.2	%	77.5	87.4	83.5	86.0	83.6	
4-Bromofluorobenzene	460-00-4	0.2	%	83.4	92.0	88.8	88.0	89.9	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP26_0 - 0.2	TP08_0 - 0.2	TP25_0.0 - 0.2	TP21_0.2 - 0.5	FD9
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-084	ES2407624-086	ES2407624-087	ES2407624-088	ES2407624-090	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	12.9	12.1	17.4	18.7	25.4	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	----	----	----	----
Asbestos (Trace)	1332-21-4	-	-	No	----	----	----	----	----
Asbestos Type	1332-21-4	-	--	-	----	----	----	----	----
Synthetic Mineral Fibre	----	-	--	No	----	----	----	----	----
Organic Fibre	----	-	--	No	----	----	----	----	----
Sample weight (dry)	----	0.01	g	612	----	----	----	----	----
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	----	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	<5	16	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	55	55	43	45	35	
Copper	7440-50-8	5	mg/kg	21	70	18	19	20	
Lead	7439-92-1	5	mg/kg	11	52	10	7	25	
Nickel	7440-02-0	2	mg/kg	5	12	12	18	7	
Zinc	7440-66-6	5	mg/kg	19	35	25	23	47	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	55	55	43	45	35	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP26_0 - 0.2	TP08_0 - 0.2	TP25_0.0 - 0.2	TP21_0.2 - 0.5	FD9
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-084	ES2407624-086	ES2407624-087	ES2407624-088	ES2407624-090	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.34	----	----	<0.05	
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	----	----	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	----	----	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5-0-2	0.05	mg/kg	<0.05	0.34	----	----	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	----	----	<0.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP26_0 - 0.2	TP08_0 - 0.2	TP25_0.0 - 0.2	TP21_0.2 - 0.5	FD9
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-084	ES2407624-086	ES2407624-087	ES2407624-088	ES2407624-090	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	----	----	<0.2	
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	----	----	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	----	----	<0.05	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP26_0 - 0.2	TP08_0 - 0.2	TP25_0.0 - 0.2	TP21_0.2 - 0.5	FD9
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-084	ES2407624-086	ES2407624-087	ES2407624-088	ES2407624-090	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	<10	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	<100	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	<50	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP26_0 - 0.2	TP08_0 - 0.2	TP25_0.0 - 0.2	TP21_0.2 - 0.5	FD9
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-084	ES2407624-086	ES2407624-087	ES2407624-088	ES2407624-090	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	105	102	----	----	100	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	85.1	92.8	----	----	90.0	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	78.4	84.6	83.4	83.9	73.6	
2-Chlorophenol-D4	93951-73-6	0.5	%	74.4	82.8	80.2	82.4	70.7	
2,4,6-Tribromophenol	118-79-6	0.5	%	82.4	78.0	79.4	82.3	47.7	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	78.5	84.3	81.3	83.3	80.6	
Anthracene-d10	1719-06-8	0.5	%	96.5	94.7	94.4	95.5	89.5	
4-Terphenyl-d14	1718-51-0	0.5	%	85.3	84.4	82.7	83.8	81.3	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	78.2	89.9	69.0	72.8	67.1	
Toluene-D8	2037-26-5	0.2	%	88.3	94.8	76.1	77.3	72.2	
4-Bromofluorobenzene	460-00-4	0.2	%	92.6	96.8	77.7	79.8	74.3	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13_0.5 - 0.75	TP20_0 - 1.0	TP13_0.5 - 1.0	TP22_0 - 0.2	TP21_0.0 - 0.2
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-091	ES2407624-094	ES2407624-095	ES2407624-096	ES2407624-097	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	14.8	17.8	11.6	14.0	22.1	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	No	No	
Asbestos (Trace)	1332-21-4	-	-	----	No	----	No	No	
Asbestos Type	1332-21-4	-	--	----	-	----	-	-	
Synthetic Mineral Fibre	----	-	--	----	No	----	No	No	
Organic Fibre	----	-	--	----	No	----	No	No	
Sample weight (dry)	----	0.01	g	----	504	----	510	324	
APPROVED IDENTIFIER:	----	-	--	----	B.SCHRADER	----	B.SCHRADER	B.SCHRADER	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	7	<5	<5	5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1	
Chromium	7440-47-3	2	mg/kg	74	24	28	56	26	
Copper	7440-50-8	5	mg/kg	29	9	14	27	9	
Lead	7439-92-1	5	mg/kg	11	7	8	11	9	
Nickel	7440-02-0	2	mg/kg	7	3	12	8	6	
Zinc	7440-66-6	5	mg/kg	21	9	18	24	14	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	74	24	28	56	26	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	----	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13_0.5 - 0.75	TP20_0 - 1.0	TP13_0.5 - 1.0	TP22_0 - 0.2	TP21_0.0 - 0.2
Sampling date / time					29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-091	ES2407624-094	ES2407624-095	ES2407624-096	ES2407624-097	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	----	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	----	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
4,4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	----	----	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	----	----	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	----	----	<0.05	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	----	----	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	----	----	<0.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13_0.5 - 0.75	TP20_0 - 1.0	TP13_0.5 - 1.0	TP22_0 - 0.2	TP21_0.0 - 0.2
Sampling date / time					29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-091	ES2407624-094	ES2407624-095	ES2407624-096	ES2407624-097	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	----	----	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	----	----	<0.2	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	----	----	<0.05	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Parathion	56-38-2	0.2	mg/kg	----	<0.2	----	----	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	<0.05	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	<0.05	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13_0.5 - 0.75	TP20_0 - 1.0	TP13_0.5 - 1.0	TP22_0 - 0.2	TP21_0.0 - 0.2
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	01-Mar-2024 00:00	01-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-091	ES2407624-094	ES2407624-095	ES2407624-096	ES2407624-097	
				Result	Result	Result	Result	Result	
EP080: BTEXN - Continued									
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	99.2	----	----	76.8	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	64.2	----	----	58.3	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	84.8	82.5	78.9	80.9	81.7	
2-Chlorophenol-D4	93951-73-6	0.5	%	83.1	79.7	74.3	81.1	80.2	
2,4,6-Tribromophenol	118-79-6	0.5	%	79.4	81.3	77.8	74.4	78.1	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	83.7	82.0	81.3	82.0	81.5	
Anthracene-d10	1719-06-8	0.5	%	94.5	95.2	94.0	92.6	91.2	
4-Terphenyl-d14	1718-51-0	0.5	%	82.9	83.3	82.6	82.2	81.1	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	74.4	72.4	71.2	78.2	68.0	
Toluene-D8	2037-26-5	0.2	%	76.5	76.0	78.5	83.9	73.9	
4-Bromofluorobenzene	460-00-4	0.2	%	78.9	78.7	79.0	84.7	75.2	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	----	----	----	14.0	----	
Moisture Content	----	1.0	%	14.3	11.9	9.0	----	8.5	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	7	<5	23	----	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	<1	
Chromium	7440-47-3	2	mg/kg	85	25	20	----	35	
Copper	7440-50-8	5	mg/kg	29	20	59	----	31	
Lead	7439-92-1	5	mg/kg	12	20	111	----	18	
Nickel	7440-02-0	2	mg/kg	11	15	6	----	13	
Zinc	7440-66-6	5	mg/kg	29	14	28	----	24	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	----	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	<2.5	----	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	85	25	20	----	35	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
^ Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
4.4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	0.58	----	0.09	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
[^] Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
4.4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
4.4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	<0.2	----	<0.2	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	<0.2	----	<0.2	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	----	<0.05	0.58	----	0.09	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	<0.2	----	<0.2	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	<0.2	----	<0.2	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EP068B: Organophosphorus Pesticides (OP) - Continued									
Parathion	56-38-2	0.2	mg/kg	----	<0.2	<0.2	----	<0.2	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	<0.05	----	<0.05	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	0.6	----	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	1.2	----	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	----	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	----	<10	
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	<10	----	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	<100	
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	<50	
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	<0.2	
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	<1	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	----	----	----	<0.0002	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	----	----	----	<0.0002	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	----	----	----	0.0003	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	----	----	----	<0.001	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	----	----	----	<0.0002	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	----	----	----	<0.0002	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	----	----	----	<0.0002	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	----	----	----	<0.0002	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	----	----	----	<0.0005	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	----	----	----	<0.0005	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	----	----	----	<0.0005	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	----	----	----	<0.0005	----	
EP231P: PFAS Sums									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	----	----	----	0.0003	----	
Sum of PFAS (WA DER List)	----	0.0002	mg/kg	----	----	----	0.0003	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	115	99.1	----	91.2	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	63.5	102	----	96.4	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	84.7	81.6	81.0	----	80.3	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP22_0.5 - 1.0	TP06_0.5 - 0.6	TP09_0 - 0.2	PFAS_S1	TP13_0 - 0.5
Sampling date / time				01-Mar-2024 00:00	28-Feb-2024 00:00	28-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-099	ES2407624-101	ES2407624-104	ES2407624-105	ES2407624-106	
				Result	Result	Result	Result	Result	
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	0.5	%	83.2	80.7	76.9	----	79.3	
2.4.6-Tribromophenol	118-79-6	0.5	%	80.3	72.3	70.8	----	72.7	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	83.3	84.5	82.8	----	85.0	
Anthracene-d10	1719-06-8	0.5	%	96.3	95.4	92.6	----	96.0	
4-Terphenyl-d14	1718-51-0	0.5	%	84.4	84.1	83.8	----	84.5	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	72.4	76.0	73.0	----	75.6	
Toluene-D8	2037-26-5	0.2	%	74.3	82.1	75.9	----	80.7	
4-Bromofluorobenzene	460-00-4	0.2	%	78.4	83.6	78.8	----	81.9	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	----	----	----	110	----	
13C8-PFOA	----	0.0002	%	----	----	----	105	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit	----	----	7.5	----	----	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	----	----	21.5	----	20.9	
Moisture Content	----	1.0	%	8.3	13.2	----	16.3	----	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	----	----	
Asbestos (Trace)	1332-21-4	-	-	----	No	----	----	----	
Asbestos Type	1332-21-4	-	--	----	-	----	----	----	
Synthetic Mineral Fibre	----	-	--	----	No	----	----	----	
Organic Fibre	----	-	--	----	No	----	----	----	
Sample weight (dry)	----	0.01	g	----	398	----	----	----	
APPROVED IDENTIFIER:	----	-	--	----	B.SCHRADER	----	----	----	
ED006: Exchangeable Cations on Alkaline Soils									
∅ Exchangeable Calcium	----	0.2	meq/100g	----	----	10.3	----	----	
∅ Exchangeable Magnesium	----	0.2	meq/100g	----	----	11.3	----	----	
∅ Exchangeable Potassium	----	0.2	meq/100g	----	----	<0.2	----	----	
∅ Exchangeable Sodium	----	0.2	meq/100g	----	----	1.1	----	----	
∅ Cation Exchange Capacity	----	0.2	meq/100g	----	----	22.6	----	----	
∅ Exchangeable Sodium Percent	----	0.2	%	----	----	4.7	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Iron	7439-89-6	50	mg/kg	----	----	15000	----	----	
Arsenic	7440-38-2	5	mg/kg	<5	<5	----	<5	<5	
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	<1	<1	
Chromium	7440-47-3	2	mg/kg	18	42	----	36	35	
Copper	7440-50-8	5	mg/kg	61	13	----	17	18	
Lead	7439-92-1	5	mg/kg	15	8	----	17	8	
Nickel	7440-02-0	2	mg/kg	5	4	----	15	9	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Zinc	7440-66-6	5	mg/kg	14	10	----	21	20	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	<0.1	<0.1	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	18	42	----	36	35	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
beta-BHC	319-85-7	0.05	mg/kg	----	<0.05	----	<0.05	----	
gamma-BHC	58-89-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
delta-BHC	319-86-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Heptachlor	76-44-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Aldrin	309-00-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	<0.05	----	<0.05	----	
^ Total Chlordane (sum)	----	0.05	mg/kg	----	<0.05	----	<0.05	----	
trans-Chlordane	5103-74-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
alpha-Endosulfan	959-98-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
cis-Chlordane	5103-71-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Dieldrin	60-57-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
4,4'-DDE	72-55-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Endrin	72-20-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
beta-Endosulfan	33213-65-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	----	<0.05	----	<0.05	----	
4,4'-DDD	72-54-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EP068A: Organochlorine Pesticides (OC) - Continued									
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
4.4'-DDT	50-29-3	0.2	mg/kg	----	<0.2	----	<0.2	----	
Endrin ketone	53494-70-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Methoxychlor	72-43-5	0.2	mg/kg	----	<0.2	----	<0.2	----	
[^] Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
[^] Sum of DDD + DDE + DDT	72-54-8/72-55-9/5 0-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg	----	<0.05	----	<0.05	----	
Demeton-S-methyl	919-86-8	0.05	mg/kg	----	<0.05	----	<0.05	----	
Monocrotophos	6923-22-4	0.2	mg/kg	----	<0.2	----	<0.2	----	
Dimethoate	60-51-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Diazinon	333-41-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	----	<0.05	----	<0.05	----	
Parathion-methyl	298-00-0	0.2	mg/kg	----	<0.2	----	<0.2	----	
Malathion	121-75-5	0.05	mg/kg	----	<0.05	----	<0.05	----	
Fenthion	55-38-9	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorpyrifos	2921-88-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Parathion	56-38-2	0.2	mg/kg	----	<0.2	----	<0.2	----	
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	<0.05	----	
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	<0.05	----	
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	<0.05	----	
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	<0.05	----	
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	<0.05	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	0.6	----	0.6	0.6	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	1.2	----	1.2	1.2	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	<10	<10	
C10 - C14 Fraction	----	50	mg/kg	<50	<50	----	<50	<50	
C15 - C28 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
C29 - C36 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	----	<50	<50	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time					28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	----	<10	<10	
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	<10	----	<10	<10	
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	----	<50	<50	
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	----	<100	<100	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	----	<50	<50	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	----	<50	<50	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	----	<0.2	<0.2	
[^] Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	<0.5	<0.5	
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	<1	<1	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%	----	99.0	----	99.0	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%	----	69.0	----	67.0	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	90.4	85.9	----	81.6	92.3	
2-Chlorophenol-D4	93951-73-6	0.5	%	90.9	84.5	----	78.6	93.5	
2,4,6-Tribromophenol	118-79-6	0.5	%	56.3	83.3	----	77.2	56.4	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	94.4	83.0	----	82.1	99.4	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP07_0.5 - 0.6	TP28_0 - 0.2	TP17_2.5 - 2.8	TP14_0 - 0.5	TP20_0.5 - 0.6
Sampling date / time				28-Feb-2024 00:00	01-Mar-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	29-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-109	ES2407624-110	ES2407624-111	ES2407624-112	ES2407624-116	
				Result	Result	Result	Result	Result	
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%	97.0	95.1	----	93.3	102	
4-Terphenyl-d14	1718-51-0	0.5	%	96.1	83.7	----	82.5	93.8	
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%	83.0	66.6	----	75.8	73.0	
Toluene-D8	2037-26-5	0.2	%	77.1	69.4	----	82.6	76.3	
4-Bromofluorobenzene	460-00-4	0.2	%	77.2	72.4	----	85.8	86.6	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0 - 0.2	PFAS_FD1	TP17_0.0 - 0.2	TRIP SPIKE 20	TRIP SPIKE 21
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	28-Feb-2024 00:00	26-Feb-2024 00:00	26-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-118	ES2407624-119	ES2407624-120	ES2407624-123	ES2407624-124	
				Result	Result	Result	Result	Result	
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%	14.8	7.4	----	----	----	
Moisture Content	----	1.0	%	----	----	14.6	----	----	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	No	----	----	
Asbestos (Trace)	1332-21-4	-	-	----	----	No	----	----	
Asbestos Type	1332-21-4	-	--	----	----	-	----	----	
Synthetic Mineral Fibre	----	-	--	----	----	No	----	----	
Organic Fibre	----	-	--	----	----	No	----	----	
Sample weight (dry)	----	0.01	g	----	----	521	----	----	
APPROVED IDENTIFIER:	----	-	--	----	----	B.SCHRADER	----	----	
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg	16	----	<5	----	----	
Cadmium	7440-43-9	1	mg/kg	<1	----	<1	----	----	
Chromium	7440-47-3	2	mg/kg	209	----	17	----	----	
Copper	7440-50-8	5	mg/kg	24	----	9	----	----	
Lead	7439-92-1	5	mg/kg	15	----	20	----	----	
Nickel	7440-02-0	2	mg/kg	222	----	5	----	----	
Zinc	7440-66-6	5	mg/kg	23	----	9	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	<0.1	----	----	
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	----	<0.5	----	----	
EG049: Trivalent Chromium									
Trivalent Chromium	16065-83-1	2	mg/kg	209	----	17	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	<0.5	----	----	
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	<0.5	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0 - 0.2	PFAS_FD1	TP17_0.0 - 0.2	TRIP SPIKE 20	TRIP SPIKE 21
Sampling date / time					29-Feb-2024 00:00	29-Feb-2024 00:00	28-Feb-2024 00:00	26-Feb-2024 00:00	26-Feb-2024 00:00
Compound	CAS Number	LOR	Unit	ES2407624-118	ES2407624-119	ES2407624-120	ES2407624-123	ES2407624-124	
				Result	Result	Result	Result	Result	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	----	<0.5	----	----	
Fluorene	86-73-7	0.5	mg/kg	<0.5	----	<0.5	----	----	
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	----	<0.5	----	----	
Anthracene	120-12-7	0.5	mg/kg	<0.5	----	<0.5	----	----	
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	----	<0.5	----	----	
Pyrene	129-00-0	0.5	mg/kg	<0.5	----	<0.5	----	----	
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	----	<0.5	----	----	
Chrysene	218-01-9	0.5	mg/kg	<0.5	----	<0.5	----	----	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	----	<0.5	----	----	
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	<0.5	----	----	
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	----	<0.5	----	----	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	----	<0.5	----	----	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	----	<0.5	----	----	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	----	<0.5	----	----	
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	----	<0.5	----	----	
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	----	<0.5	----	----	
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	0.6	----	0.6	----	----	
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	1.2	----	1.2	----	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	<10	----	----	
C10 - C14 Fraction	----	50	mg/kg	<50	----	<50	----	----	
C15 - C28 Fraction	----	100	mg/kg	<100	----	<100	----	----	
C29 - C36 Fraction	----	100	mg/kg	<100	----	<100	----	----	
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	<50	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	----	<10	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0 - 0.2	PFAS_FD1	TP17_0.0 - 0.2	TRIP SPIKE 20	TRIP SPIKE 21
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	28-Feb-2024 00:00	26-Feb-2024 00:00	26-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-118	ES2407624-119	ES2407624-120	ES2407624-123	ES2407624-124	
				Result	Result	Result	Result	Result	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	<10	----	----	
>C10 - C16 Fraction	----	50	mg/kg	<50	----	<50	----	----	
>C16 - C34 Fraction	----	100	mg/kg	<100	----	<100	----	----	
>C34 - C40 Fraction	----	100	mg/kg	<100	----	<100	----	----	
[^] >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	<50	----	----	
[^] >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	<50	----	----	
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	<0.2	<0.2	<0.2	
Toluene	108-88-3	0.5	mg/kg	<0.5	----	<0.5	4.3	4.0	
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	<0.5	6.0	5.6	
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	<0.5	6.6	6.2	
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	<0.5	2.7	2.6	
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	----	<0.2	19.6	18.4	
[^] Total Xylenes	----	0.5	mg/kg	<0.5	----	<0.5	9.3	8.8	
Naphthalene	91-20-3	1	mg/kg	<1	----	<1	<1	<1	
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	----	----	----	
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP11_0 - 0.2	PFAS_FD1	TP17_0.0 - 0.2	TRIP SPIKE 20	TRIP SPIKE 21
Sampling date / time				29-Feb-2024 00:00	29-Feb-2024 00:00	28-Feb-2024 00:00	26-Feb-2024 00:00	26-Feb-2024 00:00	
Compound	CAS Number	LOR	Unit	ES2407624-118	ES2407624-119	ES2407624-120	ES2407624-123	ES2407624-124	
				Result	Result	Result	Result	Result	
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	----	----	----	
EP231P: PFAS Sums									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
Sum of PFAS (WA DER List)	----	0.0002	mg/kg	<0.0002	<0.0002	----	----	----	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%	97.5	----	97.8	----	----	
2-Chlorophenol-D4	93951-73-6	0.5	%	99.4	----	96.3	----	----	
2,4,6-Tribromophenol	118-79-6	0.5	%	61.0	----	62.5	----	----	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%	97.4	----	97.9	----	----	
Anthracene-d10	1719-06-8	0.5	%	97.6	----	99.5	----	----	
4-Terphenyl-d14	1718-51-0	0.5	%	97.9	----	99.9	----	----	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	75.0	----	64.5	92.0	86.1	
Toluene-D8	2037-26-5	0.2	%	82.4	----	69.9	94.3	88.9	
4-Bromofluorobenzene	460-00-4	0.2	%	84.0	----	70.1	98.6	93.9	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%	106	95.2	----	----	----	
13C8-PFOA	----	0.0002	%	107	101	----	----	----	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TRIP BLANK	TP18_0 - 0.2	TSC20	TSC21	----
Sampling date / time				26-Feb-2024 00:00	29-Feb-2024 00:00	26-Feb-2024 00:00	26-Feb-2024 00:00	----	----
Compound	CAS Number	LOR	Unit	ES2407624-125	ES2407624-126	ES2407624-129	ES2407624-130	-----	----
				Result	Result	Result	Result	----	----
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	----	----	----	----
Asbestos (Trace)	1332-21-4	-	-	----	No	----	----	----	----
Asbestos Type	1332-21-4	-	--	----	-	----	----	----	----
Synthetic Mineral Fibre	----	-	--	----	No	----	----	----	----
Organic Fibre	----	-	--	----	No	----	----	----	----
Sample weight (dry)	----	0.01	g	----	498	----	----	----	----
APPROVED IDENTIFIER:	----	-	--	----	B.SCHRADER	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	----	----	----	----	----
[^] C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	----	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg	<0.2	----	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	4.6	4.2	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	6.3	5.7	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	6.9	6.3	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	2.9	2.6	----	----
[^] Sum of BTEX	----	0.2	mg/kg	<0.2	----	20.7	18.8	----	----
[^] Total Xylenes	----	0.5	mg/kg	<0.5	----	9.8	8.9	----	----
Naphthalene	91-20-3	1	mg/kg	<1	----	<1	<1	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	0.2	%	85.7	----	84.4	82.1	----	----
Toluene-D8	2037-26-5	0.2	%	92.0	----	83.0	80.6	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	95.3	----	89.8	86.4	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01_01032024	----	----	----	----
Sampling date / time				01-Mar-2024 00:00	----	----	----	----	
Compound	CAS Number	LOR	Unit	ES2407624-128	-----	-----	-----	-----	
				Result	---	---	---	---	
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----	
Chromium	7440-47-3	0.001	mg/L	<0.001	----	----	----	----	
Copper	7440-50-8	0.001	mg/L	<0.001	----	----	----	----	
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----	
Nickel	7440-02-0	0.001	mg/L	<0.001	----	----	----	----	
Zinc	7440-66-6	0.005	mg/L	<0.005	----	----	----	----	
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L	<1.0	----	----	----	----	
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	----	----	----	----	
Acenaphthene	83-32-9	1.0	µg/L	<1.0	----	----	----	----	
Fluorene	86-73-7	1.0	µg/L	<1.0	----	----	----	----	
Phenanthrene	85-01-8	1.0	µg/L	<1.0	----	----	----	----	
Anthracene	120-12-7	1.0	µg/L	<1.0	----	----	----	----	
Fluoranthene	206-44-0	1.0	µg/L	<1.0	----	----	----	----	
Pyrene	129-00-0	1.0	µg/L	<1.0	----	----	----	----	
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	----	----	----	----	
Chrysene	218-01-9	1.0	µg/L	<1.0	----	----	----	----	
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	----	----	----	----	
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	----	----	----	----	
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	----	----	----	----	
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	----	----	----	----	
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	----	----	
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	----	----	
[^] Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	----	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Sample ID	R01_01032024		----	----	----	----
		Sampling date / time	01-Mar-2024 00:00		----	----	----	----
Compound	CAS Number	LOR	Unit	ES2407624-128	-----	-----	-----	-----
				Result	---	---	---	---
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L	<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L	<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L	<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L	<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	----	----	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	----	----	----	----
Toluene	108-88-3	2	µg/L	<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	----	----	----	----
^ Total Xylenes	----	2	µg/L	<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L	<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L	<5	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	1.0	%	29.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	R01_01032024	----	----	----	----
Sampling date / time				01-Mar-2024 00:00	----	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2407624-128	-----	-----	-----	-----	-----
				Result	---	---	---	---	---
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	1.0	%	59.9	----	----	----	----	----
2,4,6-Tribromophenol	118-79-6	1.0	%	50.3	----	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%	68.6	----	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%	72.0	----	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%	77.1	----	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%	114	----	----	----	----	----
Toluene-D8	2037-26-5	2	%	117	----	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%	122	----	----	----	----	----

Analytical Results

Descriptive Results

Sub-Matrix: SOIL		
Method: Compound	Sample ID - Sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	TP27_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP23_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP16_0 - 0.5 - 29-Feb-2024 00:00	A soil sample.
EA200: Description	TP11_0_0 - 0.2 - 29-Feb-2024 00:00	A soil sample.
EA200: Description	TP26_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP20_0 - 1.0 - 29-Feb-2024 00:00	A soil sample.
EA200: Description	TP22_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP21_0_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP28_0 - 0.2 - 01-Mar-2024 00:00	A soil sample.
EA200: Description	TP17_0_0 - 0.2 - 28-Feb-2024 00:00	A soil sample.
EA200: Description	TP18_0 - 0.2 - 29-Feb-2024 00:00	A soil sample.



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP074S: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	64	130
Toluene-D8	2037-26-5	66	136
4-Bromofluorobenzene	460-00-4	60	122
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2,4,6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72	143
Toluene-D8	2037-26-5	75	131

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Work Order : ES2407624
Client : GHD PTY LTD
Project : 12627900



Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates - Continued			
4-Bromofluorobenzene	460-00-4	73	137

Inter-Laboratory Testing

Analysis conducted by ALS Newcastle, NATA accreditation no. 825, site no. 1656 (Chemistry) 9854 (Biology).

(SOIL) EA200: AS 4964 - 2004 Identification of Asbestos in Soils



QUALITY CONTROL REPORT

Work Order	: ES2407624	Page	: 1 of 52
Client	: GHD PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Skye Holloman	Contact	: Samiksha Sathish
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 2 6393 6400	Telephone	: +61-2-8784 8555
Project	: 12627900	Date Samples Received	: 05-Mar-2024
Order number	: 12627900	Date Analysis Commenced	: 11-Mar-2024
C-O-C number	: ----	Issue Date	: 18-Mar-2024
Sampler	: MALACHI HURLEY		
Site	:		
Quote number	: EN/000		
No. of samples received	: 131		
No. of samples analysed	: 75		



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.

Signatories	Position	Accreditation Category
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Brendan Schrader	Laboratory Technician	Newcastle - Asbestos, Mayfield West, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
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Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
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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
 * = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

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 (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5652977)									
ES2407624-111	TP17_2.5 - 2.8	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	43	42	2.9	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	18	14	27.7	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	14	17	25.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	6	10	54.6	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	20	16	22.5	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	15000	# 19200	24.7	0% - 20%
ES2407568-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	6	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	7	5	35.6	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	19	17	8.1	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	25	25	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	43	41	4.7	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	9650	9400	2.6	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5658382)									
ES2407624-007	TP03_1.0 - 1.2	EG005T: Chromium	7440-47-3	2	mg/kg	41	49	18.9	0% - 20%
ES2407624-007	TP03_1.0 - 1.2	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	10	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit



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 (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5658382) - continued									
ES2407624-007	TP03_1.0 - 1.2	EG005T: Copper	7440-50-8	5	mg/kg	31	29	7.5	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	18	15	22.9	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	18	16	7.6	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	24200	20800	14.8	0% - 20%
ES2408103-009	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	3	4	45.3	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	286	# 465	47.6	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	209	# 346	49.1	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	15	33.1	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	1360	# 2360	54.1	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	95	# 186	64.3	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	1280	1130	12.5	0% - 20%
		EG005T: Iron	7439-89-6	50	mg/kg	79100	95800	19.1	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5658427)									
ES2407624-019	TP08_2.0-2.2	EG005T: Chromium	7440-47-3	2	mg/kg	31	23	30.3	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	66	66	0.0	0% - 50%
ES2407624-019	TP08_2.0-2.2	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	10	9	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	16	18	15.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	80	81	0.0	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	35	34	0.0	No Limit
ES2407624-104	TP09_0 - 0.2	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	20	20	0.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	6	6	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	23	27	13.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	59	60	1.8	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	111	117	5.3	0% - 20%
ES2407624-022	TP23_0.6 - 1.0	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	52	# 39	28.9	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	9	6	26.9	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	<5	34.5	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	36	29	22.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	14	17.9	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	28	25	9.2	No Limit
		ES2407624-061	TP16_0 - 0.5	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1
EG005T: Chromium	7440-47-3			2	mg/kg	50	48	4.1	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 (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5659410) - continued									
ES2407624-061	TP16_0 - 0.5	EG005T: Nickel	7440-02-0	2	mg/kg	14	14	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	9	11	16.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	24	26	9.1	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	44	48	9.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	21	23	8.8	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5659412)									
ES2407624-087	TP25_0.0 - 0.2	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	43	44	0.0	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	12	14	15.3	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	6	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	18	26	35.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	12	19.1	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	25	26	0.0	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5661383)									
ES2407624-094	TP20_0 - 1.0	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	24	21	14.7	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	3	4	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	9	10	11.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	7	8	16.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	9	9	0.0	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	15900	13800	14.0	0% - 20%
ES2407717-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	8	8	0.0	No Limit
		EG005T: Iron	7439-89-6	50	mg/kg	<50	<50	0.0	No Limit
EA002: pH 1:5 (Soils) (QC Lot: 5652980)									
ES2407624-078	TP10_0.5 - 0.6	EA002: pH Value	----	0.1	pH Unit	6.2	6.0	1.8	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5652981)									
ES2407455-001	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	42.0	41.7	0.8	0% - 20%
ES2407568-003	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	13.6	10.9	22.0	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5652982)									
ES2407624-078	TP10_0.5 - 0.6	EA055: Moisture Content	----	0.1 (1.0)*	%	13.2	12.3	7.3	0% - 50%



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: 5658394)									
ES2407624-012	TP08_0.5 - 0.6	EA055: Moisture Content	----	0.1 (1.0)*	%	8.5	10.2	18.8	0% - 50%
ES2407907-005	Anonymous	EA055: Moisture Content	----	0.1	%	12.3	12.5	1.8	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5658437)									
ES2407624-037	TP01_0 - 0.2	EA055: Moisture Content	----	0.1 (1.0)*	%	14.8	15.3	3.1	0% - 50%
ES2407759-001	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	10.8	10.5	2.9	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5659417)									
ES2407624-025	TP29_0 - 0.1	EA055: Moisture Content	----	0.1 (1.0)*	%	14.3	14.4	0.7	0% - 50%
ES2407624-068	TP16_0.5 - 1.0	EA055: Moisture Content	----	0.1 (1.0)*	%	10.9	12.4	12.9	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5659418)									
ES2407624-090	FD9	EA055: Moisture Content	----	0.1 (1.0)*	%	25.4	24.4	4.0	0% - 20%
ES2408142-010	Anonymous	EA055: Moisture Content	----	0.1	%	21.0	20.4	3.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5661217)									
ES2407624-096	TP22_0 - 0.2	EA055: Moisture Content	----	0.1 (1.0)*	%	14.0	14.3	2.2	0% - 50%
ES2407909-001	Anonymous	EA055: Moisture Content	----	0.1 (1.0)*	%	8.1	10.0	21.3	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5661735)									
ES2407624-029	TP13_0 - 0.5	EA055: Moisture Content	----	0.1 (1.0)*	%	17.3	17.9	3.4	0% - 50%
ES2407901-003	Anonymous	EA055: Moisture Content	----	0.1	%	14.2	14.8	4.0	0% - 20%
ED006: Exchangeable Cations on Alkaline Soils (QC Lot: 5659857)									
ES2407602-024	Anonymous	ED006: Exchangeable Sodium Percent	----	0.2	%	11.9	11.9	0.0	0% - 20%
		ED006: Exchangeable Calcium	----	0.2	meq/100g	4.2	4.0	3.8	0% - 20%
		ED006: Exchangeable Magnesium	----	0.2	meq/100g	3.4	3.2	3.5	0% - 50%
		ED006: Exchangeable Potassium	----	0.2	meq/100g	<0.2	<0.2	0.0	No Limit
		ED006: Exchangeable Sodium	----	0.2	meq/100g	1.0	1.0	0.0	No Limit
		ED006: Cation Exchange Capacity	----	0.2	meq/100g	8.5	8.2	3.7	0% - 20%
ED007: Exchangeable Cations (QC Lot: 5659868)									
ES2407624-078	TP10_0.5 - 0.6	ED007: Exchangeable Sodium Percent	----	0.1	%	3.0	3.0	0.0	0% - 20%
		ED007: Exchangeable Calcium	----	0.1	meq/100g	5.8	5.8	0.0	0% - 20%
		ED007: Exchangeable Magnesium	----	0.1	meq/100g	3.2	3.1	0.0	0% - 20%
		ED007: Exchangeable Potassium	----	0.1	meq/100g	0.2	0.2	0.0	No Limit
		ED007: Exchangeable Sodium	----	0.1	meq/100g	0.3	0.3	0.0	No Limit
		ED007: Cation Exchange Capacity	----	0.1	meq/100g	9.5	9.4	1.4	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5652978)									
ES2407643-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.3	0.2	40.9	No Limit
ES2407568-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5658383)									
ES2407624-007	TP03_1.0 - 1.2	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit



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 (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5658383) - continued									
ES2408103-009	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5658428)									
ES2407624-019	TP08_2.0-2.2	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2407624-104	TP09_0 - 0.2	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5659411)									
ES2407624-022	TP23_0.6 - 1.0	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2407624-061	TP16_0 - 0.5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5659413)									
ES2407624-087	TP25_0.0 - 0.2	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5661384)									
ES2407624-094	TP20_0 - 1.0	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2407717-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 5657994)									
ES2407624-003	TP27_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2407624-018	TP02_0.5-0.6	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 5657995)									
ES2407624-041	TP02_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2407624-060	TP15_0.5 - 1.0	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 5658660)									
ES2407624-079	FD10	EG048G: Hexavalent Chromium	18540-29-9	0.5 (2.5)*	mg/kg	<2.5	<2.5	0.0	No Limit
ES2407624-095	TP13_0.5 - 1.0	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 5658661)									
ES2407624-116	TP20_0.5 - 0.6	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5652807)									
ES2407624-003	TP27_0 - 0.2	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 5652811)									
ES2407624-045	TP04_0.5 - 0.6	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652806)									
ES2407624-003	TP27_0 - 0.2	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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 (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652806) - continued									
ES2407624-003	TP27_0 - 0.2	EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652810)									
ES2407624-072	TP11_0.0 - 0.2	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
ES2407624-045	TP04_0.5 - 0.6	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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 (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652810) - continued									
ES2407624-045	TP04_0.5 - 0.6	EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652814)									
ES2407624-094	TP20_0 - 1.0	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		



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 (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5652814) - continued									
ES2407624-094	TP20_0 - 1.0	EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2407624-079	FD10	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit		
EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652806)									
ES2407624-003	TP27_0 - 0.2	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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 (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652806) - continued									
ES2407624-003	TP27_0 - 0.2	EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652810)									
ES2407624-072	TP11_0.0 - 0.2	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
ES2407624-045	TP04_0.5 - 0.6	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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 (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652810) - continued									
ES2407624-045	TP04_0.5 - 0.6	EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652814)									
ES2407624-094	TP20_0 - 1.0	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
ES2407624-079	FD10	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



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 (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5652814) - continued									
ES2407624-079	FD10	EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074D: Fumigants (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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 (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 5652801) - continued									
ES2407624-003	TP27_0 - 0.2	EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.0	No Limit
EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.0	No Limit		
EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.0	No Limit		
EP074F: Halogenated Aromatic Compounds (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 5652801)									
ES2407624-003	TP27_0 - 0.2	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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 (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652805)									
ES2407624-018	TP02_0.5-0.6	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2407624-003	TP27_0 - 0.2	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652809)									
ES2407624-072	TP11_0.0 - 0.2	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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 (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652809) - continued									
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit		
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652813)									
ES2407624-094	TP20_0 - 1.0	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit		
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit		
ES2407624-079	FD10	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit		
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit		
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652831)									



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 (%)		
EP075(SIM)A: Phenolic Compounds (QC Lot: 5652831) - continued											
ES2407624-109	TP07_0.5 - 0.6	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.0	No Limit		
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652805)											
ES2407624-018	TP02_0.5-0.6	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
		ES2407624-003	TP27_0 - 0.2	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
				EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): Acenaphthene	83-32-9			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Fluorene	86-73-7			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
EP075(SIM): Phenanthrene	85-01-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit		



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 (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652805) - continued									
ES2407624-003	TP27_0 - 0.2	EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652809)							
ES2407624-072	TP11_0.0 - 0.2	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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 (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652809) - continued									
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652813)									
ES2407624-094	TP20_0 - 1.0	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		



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 (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652813) - continued									
ES2407624-094	TP20_0 - 1.0	EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2407624-079	FD10	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652831)									
ES2407624-109	TP07_0.5 - 0.6	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



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 (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5652831) - continued									
ES2407624-109	TP07_0.5 - 0.6	EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652800)									
ES2407624-072	TP11_0.0 - 0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	72	151	No Limit
ES2407624-003	TP27_0 - 0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652804)									
ES2407624-018	TP02_0.5-0.6	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-003	TP27_0 - 0.2	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652808)									
ES2407624-072	TP11_0.0 - 0.2	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-045	TP04_0.5 - 0.6	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652812)									
ES2407624-094	TP20_0 - 1.0	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-079	FD10	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652830)									
ES2407624-109	TP07_0.5 - 0.6	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5653968)									
ES2407609-021	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2407624-018	TP02_0.5-0.6	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5654205)									
ES2407624-022	TP23_0.6 - 1.0	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit



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 (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5654205) - continued									
ES2407624-046	TP05_0 - 0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5655459)									
ES2407624-078	TP10_0.5 - 0.6	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5655843)									
ES2407624-068	TP16_0.5 - 1.0	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2407624-091	TP13_0.5 - 0.75	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5658296)									
ES2407624-118	TP11_0 - 0.2	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2407744-006	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652800)									
ES2407624-072	TP11_0.0 - 0.2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	70	150	No Limit
ES2407624-003	TP27_0 - 0.2	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: 5652804)									
ES2407624-018	TP02_0.5-0.6	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-003	TP27_0 - 0.2	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652808)									
ES2407624-072	TP11_0.0 - 0.2	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-045	TP04_0.5 - 0.6	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652812)									
ES2407624-094	TP20_0 - 1.0	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2407624-079	FD10	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652830)									
ES2407624-109	TP07_0.5 - 0.6	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit



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 (%)
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652830) - continued									
ES2407624-109	TP07_0.5 - 0.6	EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5653968)									
ES2407609-021	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2407624-018	TP02_0.5-0.6	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: 5654205)									
ES2407624-022	TP23_0.6 - 1.0	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2407624-046	TP05_0 - 0.2	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: 5655459)									
ES2407624-078	TP10_0.5 - 0.6	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: 5655843)									
ES2407624-068	TP16_0.5 - 1.0	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2407624-091	TP13_0.5 - 0.75	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: 5658296)									
ES2407624-118	TP11_0 - 0.2	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2407744-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 5652800)									
ES2407624-072	TP11_0.0 - 0.2	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	1.5	101	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
ES2407624-003	TP27_0 - 0.2	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
EP080: BTEXN (QC Lot: 5653968)									
ES2407609-021	Anonymous	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



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 (%)
EP080: BTEXN (QC Lot: 5653968) - continued									
ES2407609-021	Anonymous	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2407624-018	TP02_0.5-0.6	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
EP080: BTEXN (QC Lot: 5654205)									
ES2407624-022	TP23_0.6 - 1.0	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
ES2407624-046	TP05_0 - 0.2	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
EP080: BTEXN (QC Lot: 5655459)									
ES2407624-078	TP10_0.5 - 0.6	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
EP080: BTEXN (QC Lot: 5655843)									
ES2407624-068	TP16_0.5 - 1.0	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



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 (%)
EP080: BTEXN (QC Lot: 5655843) - continued									
ES2407624-068	TP16_0.5 - 1.0	EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2407624-091	TP13_0.5 - 0.75	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
EP080: BTEXN (QC Lot: 5658296)									
ES2407624-118	TP11_0 - 0.2	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
ES2407744-006	Anonymous	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
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5657490)									
ES2407602-011	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2407624-072	TP11_0.0 - 0.2	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5657490)									
ES2407602-011	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2407624-072	TP11_0.0 - 0.2	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit



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 (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5657490) - continued									
ES2407624-072	TP11_0.0 - 0.2	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5657490)									
ES2407602-011	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2407624-072	TP11_0.0 - 0.2	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
Sub-Matrix: WATER									
Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 5657992)									
ES2407522-001	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.012	0.012	0.0	0% - 50%
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.014	0.013	9.0	No Limit
ES2407551-002	Anonymous	EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	0.0005	0.0004	25.0	No Limit
		EG020A-T: Arsenic	7440-38-2	0.001	mg/L	0.011	0.011	0.0	0% - 50%
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	0.010	0.010	0.0	No Limit
		EG020A-T: Copper	7440-50-8	0.001	mg/L	0.031	0.030	0.0	0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.054	0.052	3.0	0% - 20%
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.011	0.011	0.0	0% - 50%
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.306	0.301	1.6	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5658008)									



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5658008) - continued									
ES2407624-128	R01_01032024	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5652851)									
ES2407500-028	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2407546-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5652851)									
ES2407500-028	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2407546-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 5652851)									
ES2407500-028	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
ES2407546-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	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: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5652977)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	100	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	86.5	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	115	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	102	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	97.7	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	95.6	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	89.2	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5658382)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	92.7	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	93.2	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	105	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	90.0	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	96.4	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	92.0	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	71.3	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5658427)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	96.0	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	87.6	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	120	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	108	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	99.4	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	98.8	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	71.0	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5659410)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	91.6	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	72.4	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	105	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	96.1	89.0	111



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EG005(ED093): Total Metals by ICP-AES (QCLot: 5659410) - continued								
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	88.7	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	90.0	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	81.4	66.0	133
EG005(ED093): Total Metals by ICP-AES (QCLot: 5659412)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	98.3	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	87.2	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	121	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	105	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	96.4	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	101	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	91.2	66.0	133
EG005(ED093): Total Metals by ICP-AES (QCLot: 5661383)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	96.1	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	107	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	119	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	100	89.0	111
EG005T: Iron	7439-89-6	50	mg/kg	<50	31660 mg/kg	104	89.0	112
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	97.7	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	98.8	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	86.5	66.0	133
EA002: pH 1:5 (Soils) (QCLot: 5652980)								
EA002: pH Value	----	----	pH Unit	----	4 pH Unit	100	98.8	101
				----	7 pH Unit	101	98.8	101
ED006: Exchangeable Cations on Alkaline Soils (QCLot: 5659857)								
ED006: Exchangeable Calcium	----	0.2	meq/100g	<0.2	2.5 meq/100g	101	80.0	110
ED006: Exchangeable Magnesium	----	0.2	meq/100g	<0.2	4.17 meq/100g	97.6	80.0	110
ED006: Exchangeable Potassium	----	0.2	meq/100g	<0.2	1.28 meq/100g	94.5	80.0	110
ED006: Exchangeable Sodium	----	0.2	meq/100g	<0.2	2.17 meq/100g	98.6	80.0	110
ED006: Cation Exchange Capacity	----	0.2	meq/100g	<0.2	----	----	----	----
ED006: Exchangeable Sodium Percent	----	0.2	%	<0.2	----	----	----	----
ED007: Exchangeable Cations (QCLot: 5659868)								
ED007: Exchangeable Calcium	----	0.1	meq/100g	<0.1	1 meq/100g	104	75.8	120
ED007: Exchangeable Magnesium	----	0.1	meq/100g	<0.1	1.67 meq/100g	98.8	74.9	115
ED007: Exchangeable Potassium	----	0.1	meq/100g	<0.1	0.51 meq/100g	96.1	80.0	120



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
ED007: Exchangeable Cations (QCLot: 5659868) - continued								
ED007: Exchangeable Sodium	----	0.1	meq/100g	<0.1	0.87 meq/100g	100	80.0	120
ED007: Cation Exchange Capacity	----	0.1	meq/100g	<0.1	----	----	----	----
ED007: Exchangeable Sodium Percent	----	0.1	%	<0.1	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5652978)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	88.9	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658383)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	92.5	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658428)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	91.3	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5659411)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	112	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5659413)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	98.3	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5661384)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	112	70.0	125
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5657994)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	102	68.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5657995)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	104	68.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5658660)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	107	68.0	114
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5658661)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	20 mg/kg	106	68.0	114
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5652807)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	85.9	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5652811)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	102	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652806)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	76.4	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	80.9	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	74.5	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	83.9	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	75.7	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.8	67.0	115



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652806) - continued									
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	82.1	69.0	115	
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	86.3	62.0	118	
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.7	63.0	117	
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	66.0	116	
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	85.9	64.0	116	
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	85.7	66.0	116	
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	85.3	67.0	115	
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.9	67.0	123	
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	86.9	69.0	115	
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	69.0	121	
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	91.4	56.0	120	
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.0	62.0	124	
EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	84.4	66.0	120	
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.7	64.0	122	
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	87.2	54.0	130	
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652810)									
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	69.0	113	
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.2	65.0	117	
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	67.0	119	
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	93.8	68.0	116	
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	83.6	65.0	117	
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	67.0	115	
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.7	69.0	115	
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	62.0	118	
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.3	63.0	117	
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.4	66.0	116	
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.0	64.0	116	
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	94.9	66.0	116	
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.3	67.0	115	
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	67.0	123	
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.6	69.0	115	
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	69.0	121	
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	92.7	56.0	120	
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.9	62.0	124	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652810) - continued									
EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	99.7	66.0	120	
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.2	64.0	122	
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	104	54.0	130	
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652814)									
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.8	69.0	113	
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	65.0	117	
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	93.9	67.0	119	
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.4	68.0	116	
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.1	65.0	117	
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.8	67.0	115	
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	96.9	69.0	115	
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	91.9	62.0	118	
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.7	63.0	117	
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	66.0	116	
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	64.0	116	
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	97.4	66.0	116	
EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.0	67.0	115	
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.5	67.0	123	
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	69.0	115	
EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.6	69.0	121	
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	90.1	56.0	120	
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	74.8	62.0	124	
EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	88.6	66.0	120	
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	93.6	64.0	122	
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	90.2	54.0	130	
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652806)									
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	77.9	59.0	119	
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	83.3	62.0	128	
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	74.8	54.0	126	
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	76.3	67.0	119	
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	70.0	120	
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	83.4	72.0	120	
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	79.3	68.0	120	
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	68.0	122	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652806) - continued									
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	81.9	69.0	117	
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.0	76.0	118	
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	79.3	64.0	122	
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	84.1	70.0	116	
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.0	69.0	121	
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	66.0	118	
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	68.0	124	
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	87.3	62.0	112	
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.2	68.0	120	
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	82.4	65.0	127	
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	78.6	41.0	123	
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652810)									
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	59.0	119	
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	62.0	128	
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	87.0	54.0	126	
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.0	119	
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.5	70.0	120	
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	72.0	120	
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	93.8	68.0	120	
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	68.0	122	
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	92.2	69.0	117	
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	94.0	76.0	118	
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	90.1	64.0	122	
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	94.1	70.0	116	
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	96.4	69.0	121	
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	66.0	118	
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	68.0	124	
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	96.5	62.0	112	
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	95.7	68.0	120	
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	97.7	65.0	127	
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	106	41.0	123	
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652814)									
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	94.0	59.0	119	
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	62.0	128	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)	Acceptable Limits (%)	
					Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652814) - continued								
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	75.2	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	95.3	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	91.2	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	88.0	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.0	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.9	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	81.5	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	83.9	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	93.3	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.2	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	57.6	41.0	123
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 5652801)								
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	98.2	67.0	113
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	100	65.0	117
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	102	66.0	122
EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	103	68.0	118
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	102	69.0	119
EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	100	69.0	117
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	102	69.0	115
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	102	66.0	118
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	99.6	59.0	125
EP074B: Oxygenated Compounds (QCLot: 5652801)								
EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	10 mg/kg	102	29.6	156
EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	10 mg/kg	99.9	58.0	136
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	10 mg/kg	102	62.0	132
EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	10 mg/kg	97.7	54.0	136
EP074C: Sulfonated Compounds (QCLot: 5652801)								
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	103	54.0	126



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP074D: Fumigants (QCLot: 5652801)									
EP074: 2,2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	101	60.0	126	
EP074: 1,2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	103	68.0	124	
EP074: cis-1,3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	98.1	51.0	119	
EP074: trans-1,3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	99.2	52.0	114	
EP074: 1,2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	98.0	63.0	115	
EP074E: Halogenated Aliphatic Compounds (QCLot: 5652801)									
EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	10 mg/kg	107	30.0	148	
EP074: Chloromethane	74-87-3	5	mg/kg	<5	10 mg/kg	102	41.0	141	
EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	10 mg/kg	104	43.0	147	
EP074: Bromomethane	74-83-9	5	mg/kg	<5	10 mg/kg	100	47.0	141	
EP074: Chloroethane	75-00-3	5	mg/kg	<5	10 mg/kg	102	49.0	143	
EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	10 mg/kg	103	49.0	135	
EP074: 1,1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	103	54.0	126	
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	94.7	43.0	129	
EP074: trans-1,2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	97.2	64.0	120	
EP074: 1,1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	103	67.0	125	
EP074: cis-1,2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	99.6	69.0	121	
EP074: 1,1,1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	101	65.0	117	
EP074: 1,1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	102	65.0	123	
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	99.6	59.0	125	
EP074: 1,2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	100	65.0	125	
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	101	70.0	118	
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	102	68.0	118	
EP074: 1,1,2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	99.3	64.0	126	
EP074: 1,3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	101	68.0	122	
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	98.8	67.0	143	
EP074: 1,1,1,2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	95.3	62.0	122	
EP074: trans-1,4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	96.1	54.0	128	
EP074: cis-1,4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	95.2	55.0	129	
EP074: 1,1,2,2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	101	65.0	121	
EP074: 1,2,3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	100	61.0	125	
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	104	19.8	134	
EP074: 1,2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	93.3	53.0	129	
EP074: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1 mg/kg	98.4	50.0	128	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP074F: Halogenated Aromatic Compounds (QCLot: 5652801)									
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	100	68.0	116	
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	102	70.0	114	
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	102	68.0	122	
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	99.8	67.0	123	
EP074: 1,3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1 mg/kg	100	70.0	116	
EP074: 1,4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1 mg/kg	102	67.0	117	
EP074: 1,2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1 mg/kg	99.6	70.0	114	
EP074: 1,2,4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1 mg/kg	92.8	48.0	122	
EP074: 1,2,3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	90.1	52.0	122	
EP074G: Trihalomethanes (QCLot: 5652801)									
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	99.1	66.0	124	
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	97.7	61.0	121	
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	99.3	63.0	121	
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	101	60.0	126	
EP075(SIM)A: Phenolic Compounds (QCLot: 5652805)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	95.0	71.0	125	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	93.6	72.0	124	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	94.0	71.0	123	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	96.4	67.0	127	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	77.7	54.0	114	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	90.5	68.0	126	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	89.3	66.0	120	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	96.2	70.0	120	
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	88.9	70.0	116	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	82.2	54.0	114	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	82.3	60.0	114	
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	39.8	10.0	80.0	
EP075(SIM)A: Phenolic Compounds (QCLot: 5652809)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	90.7	71.0	125	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	91.3	72.0	124	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	90.5	71.0	123	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	92.0	67.0	127	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	85.4	54.0	114	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	91.5	68.0	126	



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP075(SIM)A: Phenolic Compounds (QCLot: 5652809) - continued									
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	91.2	66.0	120	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	95.0	70.0	120	
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	89.5	70.0	116	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	83.0	54.0	114	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	87.0	60.0	114	
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	57.0	10.0	80.0	
EP075(SIM)A: Phenolic Compounds (QCLot: 5652813)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	97.8	71.0	125	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	97.8	72.0	124	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	97.5	71.0	123	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	101	67.0	127	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	81.5	54.0	114	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	96.8	68.0	126	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	94.7	66.0	120	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	100	70.0	120	
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	93.9	70.0	116	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	89.0	54.0	114	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	90.8	60.0	114	
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	57.0	10.0	80.0	
EP075(SIM)A: Phenolic Compounds (QCLot: 5652831)									
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	94.2	71.0	125	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	90.7	72.0	124	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	89.5	71.0	123	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	89.4	67.0	127	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	87.9	54.0	114	
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	97.2	68.0	126	
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	92.3	66.0	120	
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	93.0	70.0	120	
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	89.1	70.0	116	
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	78.2	54.0	114	
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	80.6	60.0	114	
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	33.4	10.0	80.0	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652805)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	104	77.0	125	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652805) - continued								
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	95.5	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	103	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	101	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	105	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	110	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	107	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	107	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	97.2	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	104	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	92.9	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	112	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	97.7	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	112	61.0	121
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	103	62.0	118
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	95.7	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652809)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	99.7	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	93.7	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	98.9	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	97.2	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	99.7	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	106	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	102	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	102	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	93.7	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	100.0	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	91.1	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	105	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	92.2	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	104	61.0	121
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	95.7	62.0	118
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	89.2	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652813)								



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike	Spike Recovery (%)		Acceptable Limits (%)	
					Concentration	LCS	Low	High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652813) - continued									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	105	77.0	125	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	97.9	72.0	124	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	105	73.0	127	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	103	72.0	126	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	107	75.0	127	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	113	77.0	127	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	108	73.0	127	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	108	74.0	128	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	98.5	69.0	123	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	106	75.0	127	
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	97.1	68.0	116	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	111	74.0	126	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	101	70.0	126	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	114	61.0	121	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	105	62.0	118	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	97.7	63.0	121	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652831)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	97.4	77.0	125	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	92.6	72.0	124	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	96.3	73.0	127	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	95.5	72.0	126	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	91.5	75.0	127	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	89.0	77.0	127	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	94.0	73.0	127	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	90.8	74.0	128	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	94.7	69.0	123	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	93.2	75.0	127	
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	91.2	68.0	116	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	94.2	74.0	126	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	96.0	70.0	126	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	86.7	61.0	121	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	85.9	62.0	118	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	86.7	63.0	121	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
						LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652800)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	78.0	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652804)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	97.1	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	109	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	104	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652808)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	103	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	113	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	107	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652812)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	91.9	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	101	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	94.8	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652830)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	104	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	103	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	96.4	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5653968)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	87.9	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5654205)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	91.2	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5655459)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	99.2	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5655843)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	89.7	72.2	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5658296)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	98.8	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652800)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	76.2	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652804)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	102	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	108	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	107	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652808)								



Sub-Matrix: SOIL

Method: Compound				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)
CAS Number	LOR	Unit	Result	LCS		Low	High	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652808) - continued								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	107	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	112	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	109	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652812)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	100	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	98.0	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	89.2	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652830)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	105	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	99.2	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	100	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5653968)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	92.3	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5654205)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	84.8	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5655459)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	82.7	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5655843)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	83.8	72.4	133
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5658296)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	91.9	72.4	133
EP080: BTEXN (QCLot: 5652800)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	83.4	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	87.0	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	86.5	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	90.6	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	86.2	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	82.1	78.8	122
EP080: BTEXN (QCLot: 5653968)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	91.7	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	88.3	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	90.6	77.4	121



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP080: BTEXN (QCLot: 5653968) - continued									
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	94.5	78.2	121	
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	91.1	81.3	121	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.4	78.8	122	
EP080: BTEXN (QCLot: 5654205)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	103	76.0	124	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	97.5	78.5	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	95.4	77.4	121	
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	102	78.2	121	
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	100	81.3	121	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	92.8	78.8	122	
EP080: BTEXN (QCLot: 5655459)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	99.3	76.0	124	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.3	78.5	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	101	77.4	121	
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	99.0	78.2	121	
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	99.4	81.3	121	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	102	78.8	122	
EP080: BTEXN (QCLot: 5655843)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	97.5	76.0	124	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	93.9	78.5	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	93.5	77.4	121	
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	98.3	78.2	121	
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	96.5	81.3	121	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	89.2	78.8	122	
EP080: BTEXN (QCLot: 5658296)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	102	76.0	124	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	104	78.5	121	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	102	77.4	121	
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	107	78.2	121	
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	104	81.3	121	
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	89.3	78.8	122	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5657490)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	72.0	128
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	67.0	130
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.3	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5657490)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	102	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5657490)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	87.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	114	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.2	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
					LCS	Low	High	
EG020T: Total Metals by ICP-MS (QCLot: 5657992)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	109	82.0	114
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	101	84.0	112
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	109	86.0	116
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	107	83.0	118
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	106	85.0	115
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	107	84.0	116
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	105	79.0	117
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658008)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	94.7	77.0	111
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652766)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	70.7	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	77.4	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	73.1	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	71.9	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	70.2	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	67.8	64.3	116



Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
						LCS	Low	High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652766) - continued									
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	76.8	63.6	118	
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	77.3	63.1	118	
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	72.8	64.1	117	
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	68.7	62.5	116	
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	1	µg/L	<1.0	5 µg/L	78.6	61.7	119	
	205-82-3								
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	78.5	63.0	115	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	71.7	63.3	117	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	72.2	59.9	118	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	72.8	61.2	117	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	71.4	59.1	118	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652767)									
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	90.8	53.7	97.0	
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	80.0	63.3	107	
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	83.9	58.3	120	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652851)									
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	100.0	75.0	127	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652767)									
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	91.9	53.9	95.5	
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	77.4	57.8	110	
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	90.4	50.5	115	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652851)									
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	105	75.0	127	
EP080: BTEXN (QCLot: 5652851)									
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	118	68.3	119	
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	115	73.5	120	
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	106	73.8	122	
EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	10 µg/L	118	73.0	122	
	106-42-3								
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	118	76.4	123	
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	102	75.5	124	

Matrix Spike (MS) Report



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

Sub-Matrix: SOIL

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)	
				Low	High		
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5652977)							
ES2407568-003	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	106	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	104	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	107	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	106	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	101	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	112	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	119	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5658382)							
ES2407624-007	TP03_1.0 - 1.2	EG005T: Arsenic	7440-38-2	50 mg/kg	101	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	118	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	113	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	119	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	116	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	115	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	90.1	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5658427)							
ES2407624-019	TP08_2.0-2.2	EG005T: Arsenic	7440-38-2	50 mg/kg	100	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	117	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	68.4	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	88.6	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	112	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	113	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	91.6	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5659410)							
ES2407624-022	TP23_0.6 - 1.0	EG005T: Arsenic	7440-38-2	50 mg/kg	88.7	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.3	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	129	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	100	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	93.0	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	90.4	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	92.3	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5659412)							
ES2407624-087	TP25_0.0 - 0.2	EG005T: Arsenic	7440-38-2	50 mg/kg	81.8	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.1	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.4	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	96.3	70.0	130



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
Laboratory sample ID		Sample ID	Method: Compound	CAS Number	Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5659412) - continued							
ES2407624-087	TP25_0.0 - 0.2	EG005T: Lead	7439-92-1	250 mg/kg	93.2	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	96.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	92.8	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5661383)							
ES2407624-094	TP20_0 - 1.0	EG005T: Arsenic	7440-38-2	50 mg/kg	93.2	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	91.4	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	95.0	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.3	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	98.8	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	99.2	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5652978)							
ES2407568-003	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	89.1	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658383)							
ES2407624-007	TP03_1.0 - 1.2	EG035T: Mercury	7439-97-6	5 mg/kg	83.4	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658428)							
ES2407624-019	TP08_2.0-2.2	EG035T: Mercury	7439-97-6	5 mg/kg	81.6	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5659411)							
ES2407624-022	TP23_0.6 - 1.0	EG035T: Mercury	7439-97-6	5 mg/kg	104	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5659413)							
ES2407624-087	TP25_0.0 - 0.2	EG035T: Mercury	7439-97-6	5 mg/kg	70.1	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5661384)							
ES2407624-094	TP20_0 - 1.0	EG035T: Mercury	7439-97-6	5 mg/kg	103	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5657994)							
ES2407624-007	TP03_1.0 - 1.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	74.9	70.0	130
ES2407624-007	TP03_1.0 - 1.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 58.1	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5657995)							
ES2407624-043	TP03_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 64.7	70.0	130
ES2407624-043	TP03_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 59.0	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5658660)							
ES2407624-081	TP12_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 59.7	70.0	130
ES2407624-081	TP12_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 52.1	70.0	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 5658661)							
ES2407624-118	TP11_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 54.4	70.0	130
ES2407624-118	TP11_0 - 0.2	EG048G: Hexavalent Chromium	18540-29-9	20 mg/kg	# 47.8	70.0	130



Sub-Matrix: SOIL				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5652807)							
ES2407624-003	TP27_0 - 0.2	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	95.6	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 5652811)							
ES2407624-045	TP04_0.5 - 0.6	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	98.2	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652806)							
ES2407624-003	TP27_0 - 0.2	EP068: gamma-BHC	58-89-9	0.5 mg/kg	90.9	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	92.3	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	96.8	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	103	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	93.7	70.0	130
		EP068: 4.4'-DDT	50-29-3	2 mg/kg	84.9	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652810)							
ES2407624-045	TP04_0.5 - 0.6	EP068: gamma-BHC	58-89-9	0.5 mg/kg	94.5	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	91.1	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	96.9	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	102	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	91.0	70.0	130
		EP068: 4.4'-DDT	50-29-3	2 mg/kg	90.0	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5652814)							
ES2407624-079	FD10	EP068: gamma-BHC	58-89-9	0.5 mg/kg	79.8	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	86.3	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	101	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	108	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	88.1	70.0	130
		EP068: 4.4'-DDT	50-29-3	2 mg/kg	73.3	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652806)							
ES2407624-003	TP27_0 - 0.2	EP068: Diazinon	333-41-5	0.5 mg/kg	77.8	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	93.7	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	93.8	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	95.6	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	83.6	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652810)							
ES2407624-045	TP04_0.5 - 0.6	EP068: Diazinon	333-41-5	0.5 mg/kg	77.8	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	93.4	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	91.9	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	95.9	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	83.7	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652814)							



Sub-Matrix: SOIL

				Matrix Spike (MS) Report			
				Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low High	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5652814) - continued							
ES2407624-079	FD10	EP068: Diazinon	333-41-5	0.5 mg/kg	101	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	95.9	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	91.7	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	94.5	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	80.2	70.0	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 5652801)							
ES2407624-003	TP27_0 - 0.2	EP074: 1,1-Dichloroethene	75-35-4	2.5 mg/kg	88.3	70.0	130
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	92.3	70.0	130
EP074F: Halogenated Aromatic Compounds (QCLot: 5652801)							
ES2407624-003	TP27_0 - 0.2	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	101	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5652805)							
ES2407624-003	TP27_0 - 0.2	EP075(SIM): Phenol	108-95-2	10 mg/kg	90.0	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	88.5	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	86.0	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	86.1	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	75.8	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5652809)							
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): Phenol	108-95-2	10 mg/kg	80.9	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	82.3	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	90.9	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	82.2	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	73.7	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5652813)							
ES2407624-079	FD10	EP075(SIM): Phenol	108-95-2	10 mg/kg	95.6	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	97.8	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	73.9	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	89.2	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	61.6	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 5652831)							
ES2407624-109	TP07_0.5 - 0.6	EP075(SIM): Phenol	108-95-2	10 mg/kg	89.8	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	94.6	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	86.6	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	88.6	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	49.2	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652805)							
ES2407624-003	TP27_0 - 0.2	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	97.5	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	101	70.0	130



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
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652809)							
ES2407624-045	TP04_0.5 - 0.6	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	95.0	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	98.8	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652813)							
ES2407624-079	FD10	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	94.4	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	92.9	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5652831)							
ES2407624-109	TP07_0.5 - 0.6	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	88.0	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	96.8	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652800)							
ES2407624-003	TP27_0 - 0.2	EP080: C6 - C9 Fraction	----	32.5 mg/kg	73.0	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652804)							
ES2407624-003	TP27_0 - 0.2	EP071: C10 - C14 Fraction	----	480 mg/kg	119	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	120	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	125	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652808)							
ES2407624-045	TP04_0.5 - 0.6	EP071: C10 - C14 Fraction	----	480 mg/kg	102	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	107	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	114	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652812)							
ES2407624-079	FD10	EP071: C10 - C14 Fraction	----	480 mg/kg	94.7	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	106	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	111	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652830)							
ES2407624-109	TP07_0.5 - 0.6	EP071: C10 - C14 Fraction	----	480 mg/kg	120	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	121	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	126	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5653968)							
ES2407609-021	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	90.0	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5654205)							
ES2407624-022	TP23_0.6 - 1.0	EP080: C6 - C9 Fraction	----	32.5 mg/kg	87.5	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5655459)							
ES2407624-078	TP10_0.5 - 0.6	EP080: C6 - C9 Fraction	----	32.5 mg/kg	74.6	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5655843)							
ES2407624-068	TP16_0.5 - 1.0	EP080: C6 - C9 Fraction	----	32.5 mg/kg	87.1	60.4	142
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5658296)							



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: 5658296) - continued							
ES2407624-118	TP11_0 - 0.2	EP080: C6 - C9 Fraction	----	32.5 mg/kg	80.5	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652800)							
ES2407624-003	TP27_0 - 0.2	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	68.4	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652804)							
ES2407624-003	TP27_0 - 0.2	EP071: >C10 - C16 Fraction	----	860 mg/kg	116	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	121	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	122	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652808)							
ES2407624-045	TP04_0.5 - 0.6	EP071: >C10 - C16 Fraction	----	860 mg/kg	98.6	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	106	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	126	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652812)							
ES2407624-079	FD10	EP071: >C10 - C16 Fraction	----	860 mg/kg	98.2	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	108	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	108	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652830)							
ES2407624-109	TP07_0.5 - 0.6	EP071: >C10 - C16 Fraction	----	860 mg/kg	118	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	122	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	120	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5653968)							
ES2407609-021	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	91.1	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5654205)							
ES2407624-022	TP23_0.6 - 1.0	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	82.9	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5655459)							
ES2407624-078	TP10_0.5 - 0.6	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	75.1	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5655843)							
ES2407624-068	TP16_0.5 - 1.0	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	82.5	61.1	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5658296)							
ES2407624-118	TP11_0 - 0.2	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	76.8	61.1	142
EP080: BTEXN (QCLot: 5652800)							
ES2407624-003	TP27_0 - 0.2	EP080: Benzene	71-43-2	2.5 mg/kg	76.0	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	74.1	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	74.9	67.4	123
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	77.9	66.4	121
			106-42-3				



Sub-Matrix: SOIL

				Matrix Spike (MS) Report				
				Spike Concentration	Spike Recovery(%) MS	Acceptable Limits (%)		
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High	
EP080: BTEXN (QCLot: 5652800) - continued								
ES2407624-003	TP27_0 - 0.2	EP080: ortho-Xylene	95-47-6	2.5 mg/kg	75.2	70.7	121	
		EP080: Naphthalene	91-20-3	2.5 mg/kg	71.6	61.1	115	
EP080: BTEXN (QCLot: 5653968)								
ES2407609-021	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	89.1	62.1	122	
		EP080: Toluene	108-88-3	2.5 mg/kg	82.0	66.6	119	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.3	67.4	123	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	88.6	66.4	121	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	87.5	70.7	121	
	EP080: Naphthalene	91-20-3	2.5 mg/kg	78.3	61.1	115		
EP080: BTEXN (QCLot: 5654205)								
ES2407624-022	TP23_0.6 - 1.0	EP080: Benzene	71-43-2	2.5 mg/kg	91.5	62.1	122	
		EP080: Toluene	108-88-3	2.5 mg/kg	89.5	66.6	119	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	91.6	67.4	123	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	96.9	66.4	121	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	94.5	70.7	121	
	EP080: Naphthalene	91-20-3	2.5 mg/kg	91.3	61.1	115		
EP080: BTEXN (QCLot: 5655459)								
ES2407624-078	TP10_0.5 - 0.6	EP080: Benzene	71-43-2	2.5 mg/kg	92.3	62.1	122	
		EP080: Toluene	108-88-3	2.5 mg/kg	91.4	66.6	119	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	94.8	67.4	123	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	92.1	66.4	121	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	89.9	70.7	121	
	EP080: Naphthalene	91-20-3	2.5 mg/kg	82.4	61.1	115		
EP080: BTEXN (QCLot: 5655843)								
ES2407624-068	TP16_0.5 - 1.0	EP080: Benzene	71-43-2	2.5 mg/kg	91.9	62.1	122	
		EP080: Toluene	108-88-3	2.5 mg/kg	89.7	66.6	119	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	90.3	67.4	123	
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	91.9	66.4	121	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	90.2	70.7	121	
	EP080: Naphthalene	91-20-3	2.5 mg/kg	84.2	61.1	115		
EP080: BTEXN (QCLot: 5658296)								
ES2407624-118	TP11_0 - 0.2	EP080: Benzene	71-43-2	2.5 mg/kg	82.4	62.1	122	
		EP080: Toluene	108-88-3	2.5 mg/kg	82.2	66.6	119	
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	82.8	67.4	123	



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: BTEXN (QCLot: 5658296) - continued							
ES2407624-118	TP11_0 - 0.2	EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	85.5	66.4	121
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	82.9	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	83.5	61.1	115
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5657490)							
ES2407602-011	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	91.7	72.0	128
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	95.5	67.0	130
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	91.9	68.0	136
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5657490)							
ES2407602-011	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	99.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	94.3	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	96.4	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	101	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	110	69.0	133
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5657490)							
ES2407602-011	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	82.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	123	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	91.8	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	90.5	69.2	143
Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 5657992)							
ES2407522-002	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	127	70.0	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	117	70.0	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	124	70.0	130
		EG020A-T: Copper	7440-50-8	1 mg/L	125	70.0	130
		EG020A-T: Lead	7439-92-1	1 mg/L	124	70.0	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	124	70.0	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	121	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5658008)							
ES2408070-001	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	90.3	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5652851)							
ES2407500-028	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	91.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5652851)							
ES2407500-028	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	89.0	70.0	130

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 Client : GHD PTY LTD
 Project : 12627900



Sub-Matrix: WATER

				Matrix Spike (MS) Report				
				Spike	SpikeRecovery(%)	Acceptable Limits (%)		
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High	
EP080: BTEXN (QCLot: 5652851)								
ES2407500-028	Anonymous	EP080: Benzene	71-43-2	25 µg/L	121	70.0	130	
		EP080: Toluene	108-88-3	25 µg/L	114	70.0	130	
		EP080: Ethylbenzene	100-41-4	25 µg/L	109	70.0	130	
		EP080: meta- & para-Xylene	108-38-3	25 µg/L	106	70.0	130	
			106-42-3					
		EP080: ortho-Xylene	95-47-6	25 µg/L	106	70.0	130	
	EP080: Naphthalene	91-20-3	25 µg/L	97.5	70.0	130		



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: ES2407624	Page	: 1 of 33
Client	: GHD PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: Skye Holloman	Telephone	: +61-2-8784 8555
Project	: 12627900	Date Samples Received	: 05-Mar-2024
Site	:	Issue Date	: 18-Mar-2024
Sampler	: MALACHI HURLEY	No. of samples received	: 131
Order number	: 12627900	No. of samples analysed	: 75

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** Laboratory Control outliers occur.
- Duplicate outliers exist - please see following pages for full details.
- Matrix Spike outliers exist - please see following pages for full details.
- Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

Outliers : Analysis Holding Time Compliance

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	ES2407624--022	TP23_0.6 - 1.0	Chromium	7440-47-3	28.9 %	0% - 20%	RPD exceeds LOR based limits
EG005(ED093)T: Total Metals by ICP-AES	ES2408103--009	Anonymous	Chromium	7440-47-3	47.6 %	0% - 20%	RPD exceeds LOR based limits
EG005(ED093)T: Total Metals by ICP-AES	ES2408103--009	Anonymous	Copper	7440-50-8	54.1 %	0% - 20%	RPD exceeds LOR based limits
EG005(ED093)T: Total Metals by ICP-AES	ES2407624--111	TP17_2.5 - 2.8	Iron	7439-89-6	24.7 %	0% - 20%	RPD exceeds LOR based limits
EG005(ED093)T: Total Metals by ICP-AES	ES2408103--009	Anonymous	Lead	7439-92-1	64.3 %	0% - 20%	RPD exceeds LOR based limits
EG005(ED093)T: Total Metals by ICP-AES	ES2408103--009	Anonymous	Nickel	7440-02-0	49.1 %	0% - 20%	RPD exceeds LOR based limits
Matrix Spike (MS) Recoveries							
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--043	TP03_0 - 0.2	Hexavalent Chromium	18540-29-9	64.7 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--081	TP12_0 - 0.2	Hexavalent Chromium	18540-29-9	59.7 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--118	TP11_0 - 0.2	Hexavalent Chromium	18540-29-9	54.4 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--007	TP03_1.0 - 1.2	Hexavalent Chromium	18540-29-9	58.1 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--043	TP03_0 - 0.2	Hexavalent Chromium	18540-29-9	59.0 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--081	TP12_0 - 0.2	Hexavalent Chromium	18540-29-9	52.1 %	70.0-130%	Recovery less than lower data quality objective
EG048: Hexavalent Chromium (Alkaline Digest)	ES2407624--118	TP11_0 - 0.2	Hexavalent Chromium	18540-29-9	47.8 %	70.0-130%	Recovery less than lower data quality objective

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)S: Phenolic Compound Surrogates	ES2407624-049	TP10_0 - 0.2	2-Chlorophenol-D4	93951-73-6	58.0 %	66.0-122 %	Recovery less than lower data quality objective
EP075(SIM)S: Phenolic Compound Surrogates	ES2407624-052	FD1	2-Chlorophenol-D4	93951-73-6	60.1 %	66.0-122 %	Recovery less than lower data quality objective
EP075(SIM)S: Phenolic Compound Surrogates	ES2407624-056	TP13_0 - 0.2	2-Chlorophenol-D4	93951-73-6	65.6 %	66.0-122 %	Recovery less than lower data quality objective
EP075(SIM)S: Phenolic Compound Surrogates	ES2407624-022	TP23_0.6 - 1.0	2-Chlorophenol-D4	93951-73-6	60.7 %	66.0-122 %	Recovery less than lower data quality objective
EP075(SIM)S: Phenolic Compound Surrogates	ES2407624-077	TP27_0.5 - 0.7	2-Chlorophenol-D4	93951-73-6	65.5 %	66.0-122 %	Recovery less than lower data quality objective

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**



Matrix: SOIL

Method Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA002: pH 1:5 (Soils)						
Soil Glass Jar - Unpreserved TP10_0.5 - 0.6	12-Mar-2024	06-Mar-2024	6	----	----	----
Soil Glass Jar - Unpreserved TP17_2.5 - 2.8	12-Mar-2024	07-Mar-2024	5	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons						
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4
EP074B: Oxygenated Compounds						
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4
EP074C: Sulfonated Compounds						
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4
EP074D: Fumigants						
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4
EP074E: Halogenated Aliphatic Compounds						
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3



Matrix: **SOIL**

Method	Extraction / Preparation			Analysis			
	Container / Client Sample ID(s)	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP074E: Halogenated Aliphatic Compounds - Analysis Holding Time Compliance							
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5	
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4	
EP074F: Halogenated Aromatic Compounds							
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3	
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5	
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4	
EP074G: Trihalomethanes							
Soil Glass Jar - Unpreserved TP27_0 - 0.2	11-Mar-2024	08-Mar-2024	3	11-Mar-2024	08-Mar-2024	3	
Soil Glass Jar - Unpreserved TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	11-Mar-2024	06-Mar-2024	5	11-Mar-2024	06-Mar-2024	5	
Soil Glass Jar - Unpreserved TP15_0 - 0.5, TP11_0.0 - 0.2	11-Mar-2024	07-Mar-2024	4	11-Mar-2024	07-Mar-2024	4	

Matrix: **WATER**

Method	Extraction / Preparation			Analysis			
	Container / Client Sample ID(s)	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved R01_01032024	11-Mar-2024	08-Mar-2024	3	----	----	----	
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved R01_01032024	11-Mar-2024	08-Mar-2024	3	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved R01_01032024	11-Mar-2024	08-Mar-2024	3	----	----	----	

Outliers : Frequency of Quality Control Samples

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						



Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP) - Continued						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	19	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	20	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	19	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	20	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA002: pH 1:5 (Soils)							
Soil Glass Jar - Unpreserved (EA002) TP10_0.5 - 0.6	28-Feb-2024	12-Mar-2024	06-Mar-2024	✖	12-Mar-2024	12-Mar-2024	✔
Soil Glass Jar - Unpreserved (EA002) TP17_2.5 - 2.8	29-Feb-2024	12-Mar-2024	07-Mar-2024	✖	12-Mar-2024	12-Mar-2024	✔
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) TP02_0.0 - 0.2	29-Feb-2024	----	----	----	13-Mar-2024	14-Mar-2024	✔
HDPE Soil Jar (EA055) PFAS_S1, TP11_0 - 0.2	29-Feb-2024	----	----	----	14-Mar-2024	14-Mar-2024	✔
Soil Glass Jar - Unpreserved (EA055) TP27_0 - 0.2	01-Mar-2024	----	----	----	11-Mar-2024	15-Mar-2024	✔
Soil Glass Jar - Unpreserved (EA055) TP30_0 - 0.1, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5,	01-Mar-2024	----	----	----	13-Mar-2024	15-Mar-2024	✔
Soil Glass Jar - Unpreserved (EA055) TP22_0 - 0.2, TP22_0.5 - 1.0, TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	----	----	----	14-Mar-2024	15-Mar-2024	✔
Soil Glass Jar - Unpreserved (EA055)							



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) - Continued								
TP04_0 - 0.2, TP04_0.5 - 0.6, TP10_0.5 - 0.6	FD3, TP10_0 - 0.2,	28-Feb-2024	----	----	----	11-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EA055) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6, TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	28-Feb-2024	----	----	----	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EA055) TP15_0 - 0.5, TP17_2.5 - 2.8	TP11_0.0 - 0.2,	29-Feb-2024	----	----	----	11-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EA055) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP18_0.5 - 0.6, TP12_0 - 0.2,	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP16_0.5 - 1.0, TP13_0.5 - 0.75	29-Feb-2024	----	----	----	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EA055) TP13_0 - 0.5, TP13_0.5 - 1.0, TP14_0 - 0.5, PFAS_FD1	TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6,	29-Feb-2024	----	----	----	14-Mar-2024	14-Mar-2024	✓
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200) TP27_0 - 0.2, TP26_0 - 0.2, TP21_0.0 - 0.2,	TP23_0 - 0.2, TP22_0 - 0.2, TP28_0 - 0.2	01-Mar-2024	----	----	----	12-Mar-2024	28-Aug-2024	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200) TP17_0.0 - 0.2		28-Feb-2024	----	----	----	12-Mar-2024	26-Aug-2024	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200) TP20_0 - 1.0,	TP18_0 - 0.2	29-Feb-2024	----	----	----	12-Mar-2024	27-Aug-2024	✓
Snap Lock Bag - Friable Asbestos/PSD Bag (EA200) TP16_0 - 0.5,	TP11_0.0 - 0.2	29-Feb-2024	----	----	----	15-Mar-2024	27-Aug-2024	✓
ED006: Exchangeable Cations on Alkaline Soils								
Soil Glass Jar - Unpreserved (ED006) TP17_2.5 - 2.8		29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	13-Mar-2024	28-Mar-2024	✓

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 Work Order : ES2407624
 Client : GHD PTY LTD
 Project : 12627900



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
ED007: Exchangeable Cations							
Soil Glass Jar - Unpreserved (ED007) TP10_0.5 - 0.6	28-Feb-2024	13-Mar-2024	27-Mar-2024	✔	13-Mar-2024	27-Mar-2024	✔



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	
EG005(ED093)T: Total Metals by ICP-AES								
HDPE Soil Jar (EG005T) TP02_0.0 - 0.2	29-Feb-2024	13-Mar-2024	27-Aug-2024	✓	13-Mar-2024	27-Aug-2024	✓	
HDPE Soil Jar (EG005T) TP11_0 - 0.2	29-Feb-2024	14-Mar-2024	27-Aug-2024	✓	15-Mar-2024	27-Aug-2024	✓	
Soil Glass Jar - Unpreserved (EG005T) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	28-Aug-2024	✓	12-Mar-2024	28-Aug-2024	✓	
Soil Glass Jar - Unpreserved (EG005T) TP30_0 - 0.1	01-Mar-2024	13-Mar-2024	28-Aug-2024	✓	13-Mar-2024	28-Aug-2024	✓	
Soil Glass Jar - Unpreserved (EG005T) TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5,	TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9	01-Mar-2024	13-Mar-2024	28-Aug-2024	✓	14-Mar-2024	28-Aug-2024	✓
Soil Glass Jar - Unpreserved (EG005T) TP22_0 - 0.2, TP22_0.5 - 1.0,	TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	14-Mar-2024	28-Aug-2024	✓	15-Mar-2024	28-Aug-2024	✓
Soil Glass Jar - Unpreserved (EG005T) TP04_0 - 0.2, TP04_0.5 - 0.6, TP10_0.5 - 0.6	FD3, TP10_0 - 0.2,	28-Feb-2024	11-Mar-2024	26-Aug-2024	✓	12-Mar-2024	26-Aug-2024	✓
Soil Glass Jar - Unpreserved (EG005T) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6, TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	28-Feb-2024	13-Mar-2024	26-Aug-2024	✓	13-Mar-2024	26-Aug-2024	✓
Soil Glass Jar - Unpreserved (EG005T) TP15_0 - 0.5, TP17_2.5 - 2.8	TP11_0.0 - 0.2,	29-Feb-2024	11-Mar-2024	27-Aug-2024	✓	12-Mar-2024	27-Aug-2024	✓
Soil Glass Jar - Unpreserved (EG005T) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP18_0.5 - 0.6, TP12_0 - 0.2,	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP16_0.5 - 1.0, TP13_0.5 - 0.75	29-Feb-2024	13-Mar-2024	27-Aug-2024	✓	14-Mar-2024	27-Aug-2024	✓

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 Work Order : ES2407624
 Client : GHD PTY LTD
 Project : 12627900



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	
EG005(ED093)T: Total Metals by ICP-AES - Continued								
Soil Glass Jar - Unpreserved (EG005T)								
TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	TP13_0.5 - 1.0, TP14_0 - 0.5,	29-Feb-2024	14-Mar-2024	27-Aug-2024	✔	15-Mar-2024	27-Aug-2024	✔



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS								
HDPE Soil Jar (EG035T) TP02_0.0 - 0.2	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	14-Mar-2024	28-Mar-2024	✓	
HDPE Soil Jar (EG035T) TP11_0 - 0.2	29-Feb-2024	14-Mar-2024	28-Mar-2024	✓	15-Mar-2024	28-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EG035T) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	29-Mar-2024	✓	13-Mar-2024	29-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EG035T) TP30_0 - 0.1	01-Mar-2024	13-Mar-2024	29-Mar-2024	✓	14-Mar-2024	29-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EG035T) TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5,	TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9	01-Mar-2024	13-Mar-2024	29-Mar-2024	✓	15-Mar-2024	29-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T) TP22_0 - 0.2, TP22_0.5 - 1.0,	TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	14-Mar-2024	29-Mar-2024	✓	15-Mar-2024	29-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T) TP04_0 - 0.2, TP04_0.5 - 0.6, TP10_0.5 - 0.6	FD3, TP10_0 - 0.2,	28-Feb-2024	11-Mar-2024	27-Mar-2024	✓	13-Mar-2024	27-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6, TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	28-Feb-2024	13-Mar-2024	27-Mar-2024	✓	14-Mar-2024	27-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T) TP15_0 - 0.5,	TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	28-Mar-2024	✓	13-Mar-2024	28-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP18_0.5 - 0.6, TP12_0 - 0.2,	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP16_0.5 - 1.0, TP13_0.5 - 0.75	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	15-Mar-2024	28-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG035T)								

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Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG035T: Total Recoverable Mercury by FIMS - Continued								
TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	TP13_0.5 - 1.0, TP14_0 - 0.5,	29-Feb-2024	14-Mar-2024	28-Mar-2024	✔	15-Mar-2024	28-Mar-2024	✔



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	
EG048: Hexavalent Chromium (Alkaline Digest)								
HDPE Soil Jar (EG048G) TP02_0.0 - 0.2	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	13-Mar-2024	20-Mar-2024	✓	
HDPE Soil Jar (EG048G) TP11_0 - 0.2	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	14-Mar-2024	20-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EG048G) TP27_0 - 0.2, TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0,	TP30_0 - 0.1, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7	01-Mar-2024	13-Mar-2024	29-Mar-2024	✓	13-Mar-2024	20-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG048G) FD10, TP26_0 - 0.2, TP21_0.2 - 0.5, TP22_0 - 0.2, TP22_0.5 - 1.0,	TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	13-Mar-2024	29-Mar-2024	✓	14-Mar-2024	20-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG048G) TP03_1.0 - 1.2, FD3, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP05_0 - 0.2, TP10_0 - 0.2, TP10_0.5 - 0.6	TP04_0 - 0.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP04_0.5 - 0.6, TP09_0.5 - 0.6, FD1,	28-Feb-2024	13-Mar-2024	27-Mar-2024	✓	13-Mar-2024	20-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG048G) TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	TP06_0.5 - 0.6, TP07_0.5 - 0.6,	28-Feb-2024	13-Mar-2024	27-Mar-2024	✓	14-Mar-2024	20-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG048G) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP15_0 - 0.5, TP16_0.5 - 1.0,	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP18_0.5 - 0.6, TP11_0.0 - 0.2	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	13-Mar-2024	20-Mar-2024	✓
Soil Glass Jar - Unpreserved (EG048G) TP12_0 - 0.2, TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	TP13_0.5 - 0.75, TP13_0.5 - 1.0, TP14_0 - 0.5,	29-Feb-2024	13-Mar-2024	28-Mar-2024	✓	14-Mar-2024	20-Mar-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066) TP27_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP066) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP066) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
EP068A: Organochlorine Pesticides (OC)							
HDPE Soil Jar (EP068) TP02_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP27_0 - 0.2, TP30_0 - 0.1, TP29_0 - 0.1, FD7, TP24_0 - 0.2, FD10	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP26_0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP08_2.0-2.2, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP04_0 - 0.2, FD3, TP01_0 - 0.2, TP02_0 - 0.2, TP03_0 - 0.2, FD1, TP08_0 - 0.2, TP06_0.5 - 0.6, TP09_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP13_0 - 0.5, TP13_0 - 0.2, TP16_0 - 0.5, TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP068) TP12_0 - 0.2, TP20_0 - 1.0, TP13_0 - 0.5, TP14_0 - 0.5	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓



Matrix: SOIL

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
HDPE Soil Jar (EP068) TP02_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP27_0 - 0.2, TP29_0 - 0.1, TP24_0 - 0.2, TP30_0 - 0.1, FD7, FD10	01-Mar-2024	12-Mar-2024	15-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP26_0 - 0.2, TP21_0.0 - 0.2, FD9, TP28_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✔	14-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP08_2.0-2.2, TP10_0 - 0.2, TP04_0.5 - 0.6,	28-Feb-2024	12-Mar-2024	13-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP04_0 - 0.2, TP01_0 - 0.2, TP03_0 - 0.2, TP08_0 - 0.2, TP09_0 - 0.2, FD3, TP02_0 - 0.2, FD1, TP06_0.5 - 0.6,	28-Feb-2024	12-Mar-2024	13-Mar-2024	✔	14-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP13_0 - 0.5, TP16_0 - 0.5, TP11_0.0 - 0.2, TP13_0 - 0.2, TP15_0 - 0.5,	29-Feb-2024	12-Mar-2024	14-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP068) TP12_0 - 0.2, TP13_0 - 0.5, TP20_0 - 1.0, TP14_0 - 0.5	29-Feb-2024	12-Mar-2024	14-Mar-2024	✔	14-Mar-2024	21-Apr-2024	✔
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✖	11-Mar-2024	08-Mar-2024	✖
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, TP04_0.5 - 0.6, FD3, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✖	11-Mar-2024	06-Mar-2024	✖
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✖	11-Mar-2024	07-Mar-2024	✖
EP074B: Oxygenated Compounds							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✖	11-Mar-2024	08-Mar-2024	✖
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, TP04_0.5 - 0.6, FD3, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✖	11-Mar-2024	06-Mar-2024	✖
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✖	11-Mar-2024	07-Mar-2024	✖



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
EP074C: Sulfonated Compounds							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✘	11-Mar-2024	08-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✘	11-Mar-2024	06-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✘	11-Mar-2024	07-Mar-2024	✘
EP074D: Fumigants							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✘	11-Mar-2024	08-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✘	11-Mar-2024	06-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✘	11-Mar-2024	07-Mar-2024	✘
EP074E: Halogenated Aliphatic Compounds							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✘	11-Mar-2024	08-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✘	11-Mar-2024	06-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✘	11-Mar-2024	07-Mar-2024	✘
EP074F: Halogenated Aromatic Compounds							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✘	11-Mar-2024	08-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✘	11-Mar-2024	06-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✘	11-Mar-2024	07-Mar-2024	✘
EP074G: Trihalomethanes							
Soil Glass Jar - Unpreserved (EP074) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	08-Mar-2024	✘	11-Mar-2024	08-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP04_0 - 0.2, FD3, TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	06-Mar-2024	✘	11-Mar-2024	06-Mar-2024	✘
Soil Glass Jar - Unpreserved (EP074) TP15_0 - 0.5, TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	07-Mar-2024	✘	11-Mar-2024	07-Mar-2024	✘



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM)) TP27_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP075(SIM)) TP04_0 - 0.2, FD3	28-Feb-2024	12-Mar-2024	13-Mar-2024	✔	13-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP075(SIM)) TP04_0.5 - 0.6, TP10_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✔	14-Mar-2024	21-Apr-2024	✔
Soil Glass Jar - Unpreserved (EP075(SIM)) TP11_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✔	14-Mar-2024	21-Apr-2024	✔



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
HDPE Soil Jar (EP075(SIM)) TP02_0.0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓	
HDPE Soil Jar (EP075(SIM)) TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	15-Mar-2024	21-Apr-2024	✓	
Soil Glass Jar - Unpreserved (EP075(SIM)) TP27_0 - 0.2, TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5	TP30_0 - 0.1, TP24_0.4 - 0.6, FD7,	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5, TP22_0 - 0.2, TP22_0.5 - 1.0,	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP03_1.0 - 1.2, FD3, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2,	TP04_0 - 0.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP03_0 - 0.2, TP05_0 - 0.2, TP10_0 - 0.2, TP10_0.5 - 0.6, TP06_0.5 - 0.6,	TP04_0.5 - 0.6, TP09_0.5 - 0.6, FD1, TP08_0 - 0.2, TP09_0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP07_0.5 - 0.6,	TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	15-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP12_0.5 - 1.0		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP075(SIM)) TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP18_0.5 - 0.6, TP11_0.0 - 0.2, TP13_0.5 - 0.75, TP13_0.5 - 1.0, TP14_0 - 0.5	TP11_0.5_1.0, TP15_0.5 - 1.0, TP15_0 - 0.5, TP16_0.5 - 1.0, TP12_0 - 0.2, TP20_0 - 1.0, TP13_0 - 0.5,	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓

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 Project : 12627900



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued							
Soil Glass Jar - Unpreserved (EP075(SIM)) TP20_0.5 - 0.6	29-Feb-2024	12-Mar-2024	14-Mar-2024	✔	15-Mar-2024	21-Apr-2024	✔



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
HDPE Soil Jar (EP080) TP02_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
HDPE Soil Jar (EP071) TP02_0.0 - 0.2, TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
HDPE Soil Jar (EP080) TP11_0 - 0.2	29-Feb-2024	13-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	11-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP30_0 - 0.1	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0.5 - 0.7, FD10	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP28_0.5 - 1.0	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0 - 0.2, TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5, TP22_0 - 0.2, TP22_0.5 - 1.0, TP30_0 - 0.1, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TRIP BLANK	26-Feb-2024	11-Mar-2024	11-Mar-2024	✓	11-Mar-2024	11-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP04_0 - 0.2, TP04_0.5 - 0.6, FD3, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	11-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	12-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080)							



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Petroleum Hydrocarbons - Continued								
TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1	TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP10_0.5 - 0.6, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP071) TP03_1.0 - 1.2, FD3, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP05_0 - 0.2, TP10_0 - 0.2, TP10_0.5 - 0.6, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	TP04_0 - 0.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP04_0.5 - 0.6, TP09_0.5 - 0.6, FD1, TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP15_0 - 0.5,	TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	11-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP15_0.5 - 1.0, TP18_0.5 - 0.6	TP16_0 - 0.5,	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0.5 - 1.0, TP11_0.5_1.0,	TP13_0 - 0.2, TP14_0.5 - 1.0	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0 - 0.2		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP16_0.5 - 1.0		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP15_0 - 0.5, TP16_0.5 - 1.0, TP12_0 - 0.2, TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP18_0.5 - 0.6, TP11_0.0 - 0.2, TP13_0.5 - 0.75, TP13_0.5 - 1.0, TP14_0 - 0.5,	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	14-Mar-2024	✓

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Project : 12627900



Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

<i>Method</i>	<i>Sample Date</i>	<i>Extraction / Preparation</i>			<i>Analysis</i>		
		<i>Date extracted</i>	<i>Due for extraction</i>	<i>Evaluation</i>	<i>Date analysed</i>	<i>Due for analysis</i>	<i>Evaluation</i>
EP080/071: Total Petroleum Hydrocarbons - Continued							



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
HDPE Soil Jar (EP080) TP02_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
HDPE Soil Jar (EP071) TP02_0.0 - 0.2, TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
HDPE Soil Jar (EP080) TP11_0 - 0.2	29-Feb-2024	13-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	11-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP30_0 - 0.1	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0.5 - 0.7, FD10	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP28_0.5 - 1.0	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0 - 0.2, TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5, TP28_0.5 - 1.0, FD10, TP26_0 - 0.2, TP21_0.2 - 0.5, TP22_0 - 0.2, TP22_0.5 - 1.0, TP30_0 - 0.1, TP24_0.4 - 0.6, FD7, TP24_0 - 0.2, TP27_0.5 - 0.7, TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TRIP BLANK	26-Feb-2024	11-Mar-2024	11-Mar-2024	✓	11-Mar-2024	11-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP04_0 - 0.2, TP04_0.5 - 0.6, FD3, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	11-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	12-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080)							



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1	TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP10_0.5 - 0.6, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP071) TP03_1.0 - 1.2, FD3, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2, TP01_0 - 0.2, TP03_0 - 0.2, TP05_0 - 0.2, TP10_0 - 0.2, TP10_0.5 - 0.6, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	TP04_0 - 0.2, TP08_0.5 - 0.6, FD4, TP02_0.5-0.6, TP01_0.5 - 0.6, TP02_0 - 0.2, TP04_0.5 - 0.6, TP09_0.5 - 0.6, FD1, TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP15_0 - 0.5,	TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	11-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP15_0.5 - 1.0, TP18_0.5 - 0.6	TP16_0 - 0.5,	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0.5 - 1.0, TP11_0.5_1.0,	TP13_0 - 0.2, TP14_0.5 - 1.0	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0 - 0.2		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP16_0.5 - 1.0		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0.5 - 1.0, TP11_0.5_1.0, TP15_0.5 - 1.0, TP15_0 - 0.5, TP16_0.5 - 1.0, TP12_0 - 0.2, TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	TP13_0 - 0.2, TP14_0.5 - 1.0, TP16_0 - 0.5, TP18_0.5 - 0.6, TP11_0.0 - 0.2, TP13_0.5 - 0.75, TP13_0.5 - 1.0, TP14_0 - 0.5,	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	14-Mar-2024	✓

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Matrix: **SOIL**

Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued							



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080: BTEXN								
HDPE Soil Jar (EP080) TP02_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓	
HDPE Soil Jar (EP080) TP11_0 - 0.2	29-Feb-2024	13-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EP080) TP27_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	11-Mar-2024	15-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EP080) TP30_0 - 0.1	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓	
Soil Glass Jar - Unpreserved (EP080) TP23_0.6 - 1.0, TP29_0 - 0.1, TP23_0.25 - 0.5,	TP24_0.4 - 0.6, FD7, TP24_0 - 0.2	01-Mar-2024	11-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP27_0.5 - 0.7,	FD10	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	12-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP28_0.5 - 1.0		01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	13-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP26_0.5 - 0.6, TP25_0.0 - 0.2, FD9, TP21_0.0 - 0.2, TP28_0 - 0.2	TP26_0 - 0.2, TP21_0.2 - 0.5, TP22_0 - 0.2, TP22_0.5 - 1.0,	01-Mar-2024	12-Mar-2024	15-Mar-2024	✓	14-Mar-2024	15-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TRIP SPIKE 20, TRIP BLANK, TSC21	TRIP SPIKE 21, TSC20,	26-Feb-2024	11-Mar-2024	11-Mar-2024	✓	11-Mar-2024	11-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP04_0 - 0.2, TP04_0.5 - 0.6,	FD3, TP10_0 - 0.2	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	11-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP03_1.0 - 1.2, TP05_0.5-0.6, TP06_0-0.1, TP08_2.0-2.2	TP08_0.5 - 0.6, FD4, TP02_0.5-0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	12-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP01_0.5 - 0.6, TP02_0 - 0.2, TP05_0 - 0.2, FD1	TP01_0 - 0.2, TP03_0 - 0.2, TP09_0.5 - 0.6,	28-Feb-2024	11-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP10_0.5 - 0.6, TP06_0.5 - 0.6, TP07_0.5 - 0.6,	TP08_0 - 0.2, TP09_0 - 0.2, TP17_0.0 - 0.2	28-Feb-2024	12-Mar-2024	13-Mar-2024	✓	13-Mar-2024	13-Mar-2024	✓



Matrix: SOIL

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EP080: BTEXN - Continued								
Soil Glass Jar - Unpreserved (EP080) TP15_0 - 0.5,	TP11_0.0 - 0.2	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	11-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP15_0.5 - 1.0, TP18_0.5 - 0.6	TP16_0 - 0.5,	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0.5 - 1.0, TP11_0.5_1.0,	TP13_0 - 0.2, TP14_0.5 - 1.0	29-Feb-2024	11-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP12_0 - 0.2		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	12-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP16_0.5 - 1.0		29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	13-Mar-2024	14-Mar-2024	✓
Soil Glass Jar - Unpreserved (EP080) TP13_0.5 - 0.75, TP13_0.5 - 1.0, TP14_0 - 0.5,	TP20_0 - 1.0, TP13_0 - 0.5, TP20_0.5 - 0.6	29-Feb-2024	12-Mar-2024	14-Mar-2024	✓	14-Mar-2024	14-Mar-2024	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X) PFAS_S1,	TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP231X) TP11_0.0 - 0.2,	PFAS_FD1	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X) PFAS_S1,	TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP231X) TP11_0.0 - 0.2,	PFAS_FD1	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X) PFAS_S1,	TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP231X) TP11_0.0 - 0.2,	PFAS_FD1	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X) PFAS_S1,	TP11_0 - 0.2	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓
Soil Glass Jar - Unpreserved (EP231X) TP11_0.0 - 0.2,	PFAS_FD1	29-Feb-2024	12-Mar-2024	27-Aug-2024	✓	14-Mar-2024	21-Apr-2024	✓

Matrix: WATER

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

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EG020T: Total Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) R01_01032024		01-Mar-2024	13-Mar-2024	28-Aug-2024	✓	13-Mar-2024	28-Aug-2024	✓



Matrix: **WATER** Evaluation: ✖ = Holding time breach ; ✔ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T) R01_01032024	01-Mar-2024	----	----	----	14-Mar-2024	29-Mar-2024	✔
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) R01_01032024	01-Mar-2024	11-Mar-2024	08-Mar-2024	✖	14-Mar-2024	20-Apr-2024	✔
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) R01_01032024	01-Mar-2024	11-Mar-2024	08-Mar-2024	✖	14-Mar-2024	20-Apr-2024	✔
Amber VOC Vial - Sulfuric Acid (EP080) R01_01032024	01-Mar-2024	11-Mar-2024	15-Mar-2024	✔	12-Mar-2024	15-Mar-2024	✔
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) R01_01032024	01-Mar-2024	11-Mar-2024	08-Mar-2024	✖	14-Mar-2024	20-Apr-2024	✔
Amber VOC Vial - Sulfuric Acid (EP080) R01_01032024	01-Mar-2024	11-Mar-2024	15-Mar-2024	✔	12-Mar-2024	15-Mar-2024	✔
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) R01_01032024	01-Mar-2024	11-Mar-2024	15-Mar-2024	✔	12-Mar-2024	15-Mar-2024	✔



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	Reaular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Exchangeable Cations	ED007	1	3	33.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations on Alkaline Soils	ED006	1	3	33.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	7	66	10.61	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Moisture Content	EA055	15	146	10.27	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	7	63	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	5	32	15.63	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	1	2	50.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	7	28.57	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	11	93	11.83	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	13	90	14.44	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	7	63	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	11	105	10.48	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Exchangeable Cations	ED007	1	3	33.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations on Alkaline Soils	ED006	1	3	33.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	8	66	12.12	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	32	9.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH (1:5)	EA002	2	2	100.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	93	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	90	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	6	105	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Exchangeable Cations	ED007	1	3	33.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Exchangeable Cations on Alkaline Soils	ED006	1	3	33.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	4	66	6.06	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	32	9.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Method Blanks (MB) - Continued							
Total Mercury by FIMS	EG035T	6	93	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	90	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	6	105	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	8	66	12.12	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	32	9.38	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	7	28.57	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	93	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	90	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	63	6.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	6	105	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER** Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Reaular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	19	0.00	10.00	*	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	20	0.00	10.00	*	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	4	25.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	19	0.00	5.00	*	NEPM 2013 B3 & ALS QC Standard



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

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS) - Continued							
Total Mercury by FIMS	EG035T	1	4	25.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	5.88	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	20	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard



Brief Method Summaries

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

Analytical Methods	Method	Matrix	Method Descriptions
pH (1:5)	EA002	SOIL	In house: Referenced to Rayment and Lyons 4A1 and APHA 4500H+. pH is determined on soil samples after a 1:5 soil/water leach. This method is compliant with NEPM Schedule B(3).
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Asbestos Identification in Soils	EA200	SOIL	AS 4964 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Exchangeable Cations on Alkaline Soils	* ED006	SOIL	In house: Referenced to Soil Survey Test Method C5. Soluble salts are removed from the sample prior to analysis. Cations are exchanged from the sample by contact with alcoholic ammonium chloride at pH 8.5. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil.
Exchangeable Cations	ED007	SOIL	In house: Referenced to Rayment & Lyons Method 15A1. Cations are exchanged from the sample by contact with Ammonium Chloride. They are then quantitated in the final solution by ICPAES and reported as meq/100g of original soil. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	In house: Referenced to USEPA SW846, Method 3060. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3)
Trivalent Chromium by Alkaline Digestion and DA Finish	EG049G-Aik	SOIL	In house: Referenced to APHA 3500 Cr-A&B & 3120 and USEPA USEPA SW846, Method 3060. The difference between Total and Hexavalent Chromium. The total Chromium is determined by ICPAES and the Hexavalent chromium is extracted by alkaline digestion and the digest is determined by photometrically by automatic discrete analyser. The instrument uses colour development using dephenylcarbazine. This method is compliant with NEPM Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
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).
Volatile Organic Compounds	EP074	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. This method is compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM 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.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.4, table B-15 requirements.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Exchangeable Cations Preparation Method (Alkaline Soils)	* ED006PR	SOIL	In house: Referenced to Rayment and Lyons method 15C1.
Exchangeable Cations Preparation Method	ED007PR	SOIL	In house: Referenced to Rayment & Lyons method 15A1. A 1M NH ₄ Cl extraction by end over end tumbling at a ratio of 1:20. There is no pretreatment for soluble salts. Extracts can be run by ICP for cations.



<i>Preparation Methods</i>	<i>Method</i>	<i>Matrix</i>	<i>Method Descriptions</i>
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	In house: Referenced to USEPA SW846, Method 3060A.
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of reagent grade water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
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.
QuEChERS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

trays SP-072, SPW 011

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CHAIN OF CUSTODY

ALS Laboratory:
please tick →

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CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): <input type="checkbox"/> Non Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle) Custody Seal Intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Free ice / frozen ice bricks present upon receipt? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Random Sample Temperature on Receipt: 22.1 C
OFFICE:	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	
PROJECT: Redmond Place Investigation	ALS QUOTE NO: EN/00323	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7
ORDER NUMBER: 12627900		
PROJECT MANAGER: Skye Holoman	CONTACT PH: 0477619707	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RELINQUISHED BY: M. Hurley
COC emailed to ALS? (YES / NO) - Yes	EDD FORMAT (or default): PDF and Esdat	RECEIVED BY: [Signature]
Email Reports to (will default to PM if no other addresses are listed): Skye.holoman@ghd.com Malachi.hurley@ghd.com	DATE/TIME: 5/03/2023 10:00 AM	DATE/TIME: 5/13/24 1904
Email Invoice to (will default to PM if no other addresses are listed): Skye.holoman@ghd.com		DATE/TIME: 5/13/24 1904
		RECEIVED BY: EMMA R
		DATE/TIME: 06/03/24 5pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).	Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <i>codes below</i>	(refer to)	Asbestos	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
	TP03_0.5-0.6	5/03/2024	S	Bag		X	
	TP04_0-0.2	5/03/2024	S	Bag		X	
	TP24_0.6-1.0	5/03/2024	S	Bag		X	
	TP02_0.5-0.6	5/03/2024	S	Bag		X	
	ACM_1	5/03/2024	S	Bag		X	
	TP27_0.5-1.0	5/03/2024	S	Bag		X	
	TP16_1.0-1.5	5/03/2024	S	Bag		X	
	TP01_0.5-1.0	5/03/2024	S	Bag		X	
	TP18_0.5-0.6	5/03/2024	S	Bag		X	
	TP25_0.5-0.6	5/03/2024	S	Bag		X	
	TP01_0-0.2	5/03/2024	S	Bag		X	
	TP10_0.5-0.6	5/03/2024	S	Bag		X	
TOTAL							

Environmental Division
Newcastle
Work Order Reference
EN2401999



Telephone : + 61 2 4014 2500

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



CHAIN OF CUSTODY

ALS Laboratory please tick →

Multiple small logos and contact information for various ALS branches across Australia and New Zealand.

Client: GHD, Office: Redmond Place Investigation, Project Manager: Skye Holoman, Contact PH: 0477619707, Sampler: Malachi Hurley, COC emailed to ALS? (YES / NO) - Yes, Email Reports to: Skye.holoman@ghd.com Malachi.hurley@ghd.com, Email Invoice to: Skye.holoman@ghd.com. Includes Turnaround Requirements and Laboratory Use Only section.

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

Table with 5 main columns: ALS USE, SAMPLE DETAILS, CONTAINER INFORMATION, ANALYSIS REQUIRED including SUITES, and Additional Information. Contains 13 rows of sample data with columns for Lab ID, Sample ID, Date/Time, Matrix, Type & Preservative, Asbestos Presence, and Suite Codes.

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



CHAIN OF CUSTODY

ALS Laboratory: please tick →

LAURELDALE 21 Roma Road, Pongsona QLD 4700 Ph: 07 4681 9891 | admin@alsqld.com
 LINDSAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4911 0177 | mackay@alsqld.com
 LINDSAY 100 Shovel Street Sturt QLD 4650 Ph: 07 4243 4127 | sturt@alsqld.com
 LINDSAY 214 Ventral Road Springside VIC 3111 Ph: 03 9498 9600 | es.melbourne@alsqld.com
 LINDSAY 4100 Perry Place North Dundas NSW 2811 Ph: 02 4423 2092 | nowra@alsqld.com
 LINDSAY 10 How Way Adelaide SA 5006 Ph: 08 8209 2455 | sa@alsqld.com
 LINDSAY 177 289 Wondook Road Smithfield NSW 1510 Ph: 02 9764 6574 | sydney@alsqld.com
 LINDSAY 111-113 Kingsford Street North Sydney NSW 1585 Ph: 02 9439 9000 | nsydney@alsqld.com
 LINDSAY 111-113 Kingsford Street North Sydney NSW 1585 Ph: 02 9439 9000 | nsydney@alsqld.com

CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE:	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) <input type="checkbox"/> Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
PROJECT: Redmond Place Investigation	ALS QUOTE NO: EN/003/23	Free ice / frozen ice bricks present upon receipt? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
ORDER NUMBER: 12627900	COC SEQUENCE NUMBER (Circle)	Random Sample Temperature on Receipt: 22.1 °C
PROJECT MANAGER: Skye Holoman	CONTACT PH: 0477619707	Other comment:
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY: <i>MH</i>
COC emailed to ALS? (YES / NO) - Yes	EDD FORMAT (or default): PDF and Esdat	RECEIVED BY: <i>MH</i>
Email Reports to (will default to PM if no other addresses are listed): Skye.holoman@ghd.com Malachi.hurley@ghd.com	RELINQUISHED BY: M. Hurley	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed): Skye.holoman@ghd.com	DATE/TIME: 5/03/2023 10:00 AM	DATE/TIME: 5/3/24 1904

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information	
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <i>codes below</i>	(refer to)	Asbestos									Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
	TP13_0-0.2	5/03/2024	S	Bag		X									
	TP13_0-0.2	5/03/2024	S	Bag		X									
	TP26_0.5-1.0	5/03/2024	S	Bag		X									
	TP14_0.5-1.0	5/03/2024	S	Bag		X									
	TP19_0.5-0.75	5/03/2024	S	Bag		X									
	TP17_0.5-1.0	5/03/2024	S	Bag		X									
	TP08_0.5-0.6	5/03/2024	S	Bag		X									
	TP10_0-0.2	5/03/2024	S	Bag		X									
	TP09_0-0.2	5/03/2024	S	Bag		X									
	TP11_0.5-0.6	5/03/2024	S	Bag		X									
	TP06_0.5-0.6	5/03/2024	S	Bag		X									
	TP17_0-0.2	5/03/2024	S	Bag		X									
TOTAL															

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



CERTIFICATE OF ANALYSIS

Work Order : EN2401999
Client : GHD PTY LTD
Contact : Skye Holloman
Address : Level 11, 200 Crown Street, Wollongong, NSW 2500
2500
Telephone : +61 2 6393 6400
Project : Redmond Place Investigation
Order number : 12627900
C-O-C number : ----
Sampler : MALACHI HURLEY
Site :
Quote number : EN/000
No. of samples received : 40
No. of samples analysed : 39

Page : 1 of 12
Laboratory : Environmental Division Newcastle
Contact :
Address : 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone : +61 2 4014 2500
Date Samples Received : 05-Mar-2024 17:00
Date Analysis Commenced : 13-Mar-2024
Issue Date : 18-Mar-2024 10:33



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
- Descriptive Results

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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Brendan Schrader	Laboratory Technician	Newcastle - Asbestos, Mayfield West, NSW



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.

- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP16_1.0-1.5	TP01_0.5-1.0	TP18_0.5-0.6	TP25_0.5-0.6	TP10_0.5-0.6
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	EN2401999-007	EN2401999-008	EN2401999-009	EN2401999-010	EN2401999-012
				Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No
Asbestos Type	1332-21-4	-	--	-	-	-	-	-
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No
Organic Fibre	----	-	--	No	No	No	No	No
Sample weight (dry)	----	0.01	g	138	222	136	130	158
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				TP07_0-0.2	TP05-0.5-0.6	TP05_0.0-0.2	TP08_0-0.2	TP07_0.5-0.6
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00
Compound	CAS Number	LOR	Unit	EN2401999-013	EN2401999-014	EN2401999-015	EN2401999-016	EN2401999-017
				Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No
Asbestos Type	1332-21-4	-	--	-	-	-	-	-
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No
Organic Fibre	----	-	--	No	No	No	No	No
Sample weight (dry)	----	0.01	g	149	146	214	162	168
APPROVED IDENTIFIER:	----	-	--	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER	B.SCHRADER



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP10_0-0.2	TP21_0.5-1.0	TP04_0.5-0.6	TP13_0-0.2	TP26_0.5-1.0
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	EN2401999-024	EN2401999-025	EN2401999-026	EN2401999-027	EN2401999-029	
				Result	Result	Result	Result	Result	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No	
Asbestos Type	1332-21-4	-	--	-	-	-	-	-	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No	
Organic Fibre	----	-	--	No	No	No	No	No	
Sample weight (dry)	----	0.01	g	150	99.1	180	490	132	
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP14_0.5-1.0	TP19_0.5-0.75	TP17_0.5-1.0	TP08_0.5-0.6	TP10_0-0.2
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	EN2401999-030	EN2401999-031	EN2401999-032	EN2401999-033	EN2401999-034	
				Result	Result	Result	Result	Result	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No	
Asbestos Type	1332-21-4	-	--	-	-	-	-	-	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No	
Organic Fibre	----	-	--	No	No	No	No	No	
Sample weight (dry)	----	0.01	g	143	138	133	129	108	
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP09_0-0.2	TP11_0.5-0.6	TP06_0.5-0.6	TP17_0-0.2	TP03_0-0.2
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	
Compound	CAS Number	LOR	Unit	EN2401999-035	EN2401999-036	EN2401999-037	EN2401999-038	EN2401999-039	
				Result	Result	Result	Result	Result	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	No	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	No	
Asbestos Type	1332-21-4	-	--	-	-	-	-	-	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	No	
Organic Fibre	----	-	--	No	No	No	No	No	
Sample weight (dry)	----	0.01	g	89.0	137	162	539	228	
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TP13_0.5-1.0	TP06_0-0.2	TP13_0-0.5	TP28_0.5-1.0	----
Sampling date / time				05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	05-Mar-2024 00:00	----	
Compound	CAS Number	LOR	Unit	EN2401999-040	EN2401999-041	EN2401999-042	EN2401999-043	-----	
				Result	Result	Result	Result	----	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg	No	No	No	No	----	
Asbestos (Trace)	1332-21-4	-	-	No	No	No	No	----	
Asbestos Type	1332-21-4	-	--	-	-	-	-	----	
Synthetic Mineral Fibre	----	-	--	No	No	No	No	----	
Organic Fibre	----	-	--	No	No	No	No	----	
Sample weight (dry)	----	0.01	g	118	160	476	145	----	
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	A. SMYLIE	A. SMYLIE	A. SMYLIE	----	



Analytical Results

Descriptive Results

Sub-Matrix: SOIL

Method: Compound	Sample ID - Sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	TP03_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP04_0.0-0.2 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP24_0.6-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP02_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP27_0.5-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP16_1.0-1.5 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP01_0.5-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP18_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP25_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP10_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP07_0.0-0.2 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP05-0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP05_0.0-0.2 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP08_0.0-0.2 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP07_0.5-0.6 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP12_0.5-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP14_0.5-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP23_0.6-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP22_0.5-1.0 - 05-Mar-2024 00:00	A soil sample.
EA200: Description	TP09_0.5-0.6 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP10_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP21_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP04_0.5-0.6 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP13_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP26_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP14_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP19_0.5-0.75 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP17_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP08_0.5-0.6 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP10_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP09_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP11_0.5-0.6 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP06_0.5-0.6 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP17_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP03_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP13_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP06_0.0-0.2 - 05-Mar-2024 00:00	Soil sample.
EA200: Description	TP13_0.0-0.5 - 05-Mar-2024 00:00	Soil sample.

Page : 12 of 12
Work Order : EN2401999
Client : GHD PTY LTD
Project : Redmond Place Investigation



Sub-Matrix: **SOIL**

<i>Method: Compound</i>	<i>Sample ID - Sampling date / time</i>	<i>Analytical Results</i>
EA200: Description	TP28_0.5-1.0 - 05-Mar-2024 00:00	Soil sample.



QUALITY CONTROL REPORT

Work Order	: EN2401999	Page	: 1 of 3
Client	: GHD PTY LTD	Laboratory	: Environmental Division Newcastle
Contact	: Skye Holloman	Contact	:
Address	: Level 11, 200 Crown Street, Wollongong, NSW 2500	Address	: 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone	: +61 2 6393 6400	Telephone	: +61 2 4014 2500
Project	: Redmond Place Investigation	Date Samples Received	: 05-Mar-2024
Order number	: 12627900	Date Analysis Commenced	: 13-Mar-2024
C-O-C number	: ----	Issue Date	: 18-Mar-2024
Sampler	: MALACHI HURLEY		
Site	:		
Quote number	: EN/000		
No. of samples received	: 40		
No. of samples analysed	: 39		



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.

Signatories	Position	Accreditation Category
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Brendan Schrader	Laboratory Technician	Newcastle - Asbestos, Mayfield West, NSW



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%.

- **No Laboratory Duplicate (DUP) Results are required to be reported.**



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.

- **No Method Blank (MB) or Laboratory Control Spike (LCS) Results are required to be reported.**

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.

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**
-



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: EN2401999	Page	: 1 of 4
Client	: GHD PTY LTD	Laboratory	: Environmental Division Newcastle
Contact	: Skye Holloman	Telephone	: +61 2 4014 2500
Project	: Redmond Place Investigation	Date Samples Received	: 05-Mar-2024
Site	:	Issue Date	: 18-Mar-2024
Sampler	: MALACHI HURLEY	No. of samples received	: 40
Order number	: 12627900	No. of samples analysed	: 39

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, **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	
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Snap Lock Bag - ACM/Asbestos Grab Bag (EA200)								
TP03_0.5-0.6, TP24_0.6-1.0, TP27_0.5-1.0, TP01_0.5-1.0, TP25_0.5-0.6, TP07_0-0.2, TP05_0.0-0.2, TP07_0.5-0.6, TP14_0.5-1.0, TP22_0.5-1.0, TP10_0-0.2, TP04_0.5-0.6, TP26_0.5-1.0, TP19_0.5-0.75, TP08_0.5-0.6, TP09_0-0.2, TP06_0.5-0.6, TP03_0-0.2, TP06_0-0.2, TP28_0.5-1.0	TP04_0-0.2, TP02_0.5-0.6, TP16_1.0-1.5, TP18_0.5-0.6, TP10_0.5-0.6, TP05-0.5-0.6, TP08_0-0.2, TP12_0.5-1.0, TP23_0.6-1.0, TP09_0.5-0.6, TP21_0.5-1.0, TP13_0-0.2, TP14_0.5-1.0, TP17_0.5-1.0, TP10_0-0.2, TP11_0.5-0.6, TP17_0-0.2, TP13_0.5-1.0, TP13_0-0.5,	05-Mar-2024	----	----	----	13-Mar-2024	01-Sep-2024	✓



Quality Control Parameter Frequency Compliance

- No Quality Control data available for this section.
-



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>
Asbestos Identification in Soils	EA200	SOIL	AS 4964 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining



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ALS Laboratory:
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Environmental Division
Sydney
Work Order Reference
ES2407624



Telephone : +61-2-8784 8555

CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date):	FOR LABORATORY USE O	
OFFICE:	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) <input type="checkbox"/> Non Standard or urgent TAT (List due date):	Custody Seal Intact?	
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	Free ice / frozen ice bricks present receipt?	
ORDER NUMBER:		Random Sample Temperature or	
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	Other comment: <i>2.12</i>	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY: <i>Brendan</i>	RECEIVED BY: <i>Wanda</i>
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	DATE/TIME: <i>11/3/24 1:20</i>	DATE/TIME: <i>050324 1411</i>
Email Reports to Skye.Holloman@ghd.com			
Email Invoice to accountspayableAU@ghd.com	DATE/TIME: 04/03/24 12:00pm (ALS Chemex Orange)		

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: **PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.**

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)		CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).										Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <i>codes below</i> (refer to)	TOTAL CONTAINERS	TRH / BTEXN / PAH / 8 Metals (Arsenic, cadmium, chromium III + VI, copper, lead, mercury, nickel, zinc)	Asbestos Presence / Absence	OCP / OPP	PFAS (short suite)	PCBs	Phenols	VOCs	CEC, clay content, pH, iron	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.	
1	TP23_2.0 - 2.5	01-03-24	S	Jar	1				HOLD					SALINITY: EA014, EA032, EA084, ED045S, EN34 PENDING CLIENT APPROVAL. ADVISED HOLDING TIME IS 150 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.	
2	TP28_1.5 - 1.9	01-03-24	S	Jar	1				HOLD						
3	TP27_0 - 0.2	01-03-24	S	Jar, Bag	2	X	X	X		X	X	X			
4	TP12_1.0 - 1.5	29-02-24	S	Jar	1				HOLD						
5	TP07_1 - 1.1	28-02-24	S	Jar	1				HOLD						
6	TP07_2.0 - 2.2	28-02-24	S	Jar	1				HOLD						
7	TP03_1.0 - 1.2	28-02-24	S	Jar	1	X									
8	TP04_0 - 0.2	28-02-24	S	Jar	1	X		X		X	X	X			
9	TP04_1.0 - 1.1	28-02-24	S	Jar	1				HOLD						
10	FD3	28-02-24	S	Jar	1	X		X		X	X	X			
11	TP02_0.0 - 0.2	29-02-24	S	Jar	1	X		X							
12	TP08_0.5 - 0.6	28-02-24	S	Jar	1	X									
13	TP30_0 - 0.1	01-03-24	S	Jar	1	X		X							
14	PFAS_FD2	29-02-24	S	PFAS soil container	1	X	Please forward this inter-lab sample to Eurofins Laboratory.								
14	TP07_0 - 0.2	28/02.2024	S	Jar	1										

1076795

Eurofin
Newcast Asbd
etc

13	TP05_0.5 - 0.6	28-02-24	S	Jar	1	X												
16	FD4	28-02-24	S	Jar	1	X												
17	TP06_0 - 0.1	28-02-24	S	Jar	1	X												
	FD5	28-02-24	S	Jar	1	X	Please forward this inter-lab sample to Eurofins Laboratory											
18	TP02_0.5 - 0.6	28-02-24	S	Jar	1	X												
	FD2_28012024	28-02-24	S	Jar	1	X	Please forward this inter-lab sample to Eurofins Laboratory. Please rename sample FD2.											
19	TP08_2.0 - 2.2	28-02-24	S	Jar	1	X		X										
20	TP08_2.6 - 2.7	28-02-24	S	Jar	1		HOLD											
21	TP08_1.0 - 1.1	28-02-24	S	Jar	1		HOLD											
					25		15	1	6	0	2	2	2	0				

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



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CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): <small>(Standard TAT may be longer for some tests e.g. Ultra Trace Organics)</small>		FOR LABORATORY USE ONLY (Circle)	
OFFICE:	<input type="checkbox"/> Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A	Free ice / frozen ice bricks present upon receipt? Yes No N/A
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	COC SEQUENCE NUMBER (Circle)	Random Sample Temperature on Receipt: °C	
ORDER NUMBER:		COC: 1 2 3 4 5 6 7	Other comment:	
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	OF: 1 2 3 4 5 6 7		
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RELINQUISHED BY: Skye Holloman	RECEIVED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	DATE/TIME:	DATE/TIME:	DATE/TIME:
Email Reports to Skye.Holloman@ghd.com		04/03/24 12:00pm (ALS Chemex Orange)		
Email Invoice to accountspayableAU@ghd.com				

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) <small>Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).</small>										Additional Information	
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>codes below</small>	refer to	TOTAL CONTAINERS	TPH / BTEXN / PAH / S	Metals (Arsenic, cadmium, chromium III + VI, copper, lead, mercury, nickel, zinc)	Asbestos Presence / Absence	OCF / OPP	PFAS (short suite)	PCBs	Phenols	VOCs		CEC, clay content, pH, Iron
22	TP23_0.6 - 1.0	01-03-24	S	Jar			1	X									SALINITY EACH EN002 EN004 EN005 EN006 EN007 EN008 EN009 EN010 EN011 EN012 EN013 EN014 EN015 EN016 EN017 EN018 EN019 EN020 EN021 EN022 EN023 EN024 EN025 EN026 EN027 EN028 EN029 EN030 EN031 EN032 EN033 EN034 EN035 EN036 EN037 EN038 EN039 EN040 EN041 EN042 EN043 EN044 PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.
23	TP24_0.4 - 0.5	01-03-24	S	Jar			1	X									
24	TP08_2.4 - 2.5	28-02-24	S	Jar			1					HOLD					
25	TP29_0 - 0.1	01-03-24	S	Jar			1	X		X							
26	TP24_2.5 - 3.0	01-03-24	S	Jar			1					HOLD					
	FD8	01-03-24	S	Jar			1	X		X						Please forward this interlab sample to Envirofine Laboratory.	
27	TP01_0.9 - 1.0	28-02-24	S	Jar			1					HOLD					
28	TP12_0.5 - 1.0	29-02-24	S	Jar			1	X									
29	TP13_0 - 0.5	29-02-24	S	Jar			1			X							
30	FD7	01-03-24	S	Jar			1	X		X							
31	TP01_0.5 - 0.6	28-02-24	S	Jar			1	X									
32	TP14_1.0 - 1.5	29-02-24	S	Jar			1					HOLD					
33	TP23_0.25 - 0.5	01-03-24	S	Jar			1	X									
34	TP05_1.2 - 1.4	28-02-24	S	Jar			1					HOLD					
35	TP03_2.65 - 2.75	28-02-24	S	Jar			1					HOLD					
36	TP15_1.0 - 1.5	29-02-24	S	Jar			1					HOLD					
37	TP01_0 - 0.2	28-02-24	S	Jar			1	X		X							
38	TP02_1.4 - 1.5	28-02-24	S	Jar			1					HOLD					
39	TP03_2.0 - 2.1	28-02-24	S	Jar			1					HOLD					
40	TP10_1.0 - 1.1	28-02-24	S	Jar			1					HOLD					
41	TP02_0 - 0.2	28-02-24	S	Jar			1	X		X							
42	TP23_0 - 0.2	01-03-24	S	Jar, Bag			2			X							
43	TP03_0 - 0.2	28-02-24	S	Jar			1	X		X							
44	TP06_1.0 - 1.1	28-02-24	S	Jar			1					HOLD					
							25	11	1	7	0	0	0	0	0		

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl Preserved Plastic; HE = HCl Preserved Substrate bottle; SP = Sulfuric Preserved Plastic; F = Fluoropolymer Preserved Glass
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Soluble Solids; B = Unpreserved Bag

60	TP15_0.5 - 1.0	29-02-24	S	Jar	1	X												
61	TP16_0 - 0.5	29-02-24	S	Jar	1	X		X										
62	TP15_2.0 - 2.3	29-02-24	S	Jar	1				HOLD									
63	TP14_2.0 - 2.5	29-02-24	S	Jar	1				HOLD									
64	TP15_0 - 0.5	29-02-24	S	Jar	1	X		X		X	X	X						
65	TP18_0.5 - 0.6	29-02-24	S	Jar	1	X												
66	TP24_0 - 0.2	01-03-24	S	Jar	1	X		X										
67	TP17_0.5 - 0.6	29-02-24	S	Jar	1				HOLD									
68	TP16_0.5 - 1.0	29-02-24	S	Jar	1	X												
					24	14	0	7	0	3	3	3	0					

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



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CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): (Standard TAT may be longer for some tests e.g. Ultra Trace Organics) <input type="checkbox"/> Non Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE:		Custody Seal Intact? Yes No N/A	
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	Free ice / frozen ice bricks present upon receipt? Yes No N/A	
ORDER NUMBER:		Random Sample Temperature on Receipt: °C	
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	Other comment:	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	RELINQUISHED BY: Skye Holloman	RELINQUISHED BY:
Email Reports to Skye.Holloman@ghd.com		DATE/TIME:	DATE/TIME:
Email Invoice to accountspayableAU@ghd.com		04/03/24 12:00pm (ALS Chemex Orange)	

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: **PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.**

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).											Additional Information
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <i>codes below</i>	TOTAL CONTAINERS <i>(refer to codes below)</i>	TRH / BTEXN / PAH / 8 Metals (Arsenic, cadmium, chromium III, + VI, copper, lead, mercury, nickel, zinc)	Asbestos Presence / Absence	OCF / OPP	PFAS (short suite)	PCBs	Phenols	VOCs	CEC, clay content, pH, iron	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.		
69	TP11_2.0 - 2.5		29-02-24	S	Jar	1										SALINITY BAP14 BAP33 EAP34, EDI45, EN34 PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS - PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS	
70	TP11_1.0 - 1.5		29-02-24	S	Jar	1											
71	TP14_2.5 - 3.0		29-02-24	S	Jar	1											
72	TP11_0.0 - 0.2		29-02-24	S	Jar	1	X		X	X	X	X					
73	TP22_1.0 - 1.5		01-03-24	S	Jar	1											
74	TP28_0.5 - 1.0		01-03-24	S	Jar	1	X										
75	TP24_1.0 - 1.5		01-03-24	S	Jar	1											
76	TP25_0.5 - 1.0		01-03-24	S	Jar	1											
77	TP27_0.5 - 0.7		01-03-24	S	Jar	1	X										
78	TP10_0.5 - 0.6		28-02-24	S	Jar	1	X							X			
79	FD10		01-03-24	S	Jar	1	X		X								
80	TP27_1 - 1.5		01-03-24	S	Jar	1											
81	TP12_0 - 0.2		29-02-24	S	Jar	1	X		X								
82	TP22_1.5 - 2.0		01-03-24	S	Jar	1											
83	TP26_0.5 - 0.6		01-03-24	S	Jar	1	X										
84	TP26_0 - 0.2		01-03-24	S	Jar, 2 x Bag	3	X	X	X								
85	TP13_0 - 0.2	SNR	29-02-24	S	Jar	1	X		X								
86	TP08_0 - 0.2		28-02-24	S	Jar	1	X		X								
87	TP25_0.0 - 0.2		01-03-24	S	Jar	1	X										
88	TP21_0.2 - 0.5		01-03-24	S	Jar	1	X										
89	TP25_1.0 - 1.5		01-03-24	S	Jar	1											
90	FD9		01-03-24	S	Jar	1	X		X								
91	TP13_0.5 - 0.75		29-02-24	S	Jar	1	X										
						25	14	1	6	1	0	0	0	0			

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ALS Laboratory:
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CLIENT: GHD	TURNAROUND REQUIREMENTS : <input type="checkbox"/> Standard TAT (List due date): <small>(Standard TAT may be longer for some tests e.g.. Ultra Trace Organics)</small>	FOR LABORATORY USE ONLY (Circle)	
OFFICE:	<input type="checkbox"/> Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A	
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	Free ice / frozen ice bricks present upon receipt? Yes No N/A	
ORDER NUMBER:		Random Sample Temperature on Receipt: °C	
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	Other comment:	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RECEIVED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	RELINQUISHED BY: Skye Holloman	RELINQUISHED BY:
Email Reports to Skye.Holloman@ghd.com		DATE/TIME:	DATE/TIME:
Email Invoice to accountspayableAU@ghd.com		04/03/24 12:00pm (ALS Chemex Orange)	

PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING. PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES.

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	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>codes below</small> (refer to)	TOTAL CONTAINERS	TRH / BTEXN / PAH / 8 Metals (Arsenic, cadmium, chromium III + VI, copper, lead, mercury, nickel, zinc)	Asbestos Presence / Absence	OCP / OPP	PFAS (short suite)	PCBs	Phenols	VOCs	CEC, clay content, pH, Iron		
92	TP26_1.0 - 1.2	01-03-24	S	Jar	1										SALINITY: EA014, EA032, EA084, ED046S, EN34 PENDING CLIENT APPROVAL. ADVISED HOLDING TIME IS 180 DAYS. PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS.	
93	TP10_2.0 - 2.2	28-02-24	S	Jar	1											
94	TP20_0 - 1.0	29-02-24	S	Jar, Bag	2	X	X	X								
95	TP13_0.5 - 1.0	29-02-24	S	Jar	1	X										
96	TP22_0 - 0.2	01-03-24	S	Jar, Bag	2	X	X									
97	TP21_0.0 - 0.2	01-03-24	S	Jar, Bag	2	X	X	X								
98	TP03_0.5 - 0.6	28-02-24	S	Jar	1											
99	TP22_0.5 - 1.0	01-03-24	S	Jar	1	X										
100	TP25_1.5 - 1.7	01-03-24	S	Jar	1											
101	TP06_0.5 - 0.6	28-02-24	S	Jar	1	X		X								
102	TP21_1.5 - 1.9	01-03-24	S	Jar	1											
103	TP09_1.6 - 1.7	28-02-24	S	Jar	1											
104	TP09_0 - 0.2	28-02-24	S	Jar	1	X		X								
105	PFAS_S1	29-02-24	S	PFAS soil container	1				X							
106	TP13_0 - 0.5	29-02-24	S	Jar	1	X		X								

107	TP28_1.0 - 1.5	01-03-24	S	Jar	1	HOLD							
108	TP12_2.0 - 2.5	29-02-24	S	Jar	1	HOLD							
109	TP07_0.5 - 0.6	28-02-24	S	Jar	1	X							
110	TP28_0 - 0.2	01-03-24	S	Jar, Bag	2	X	X	X					
111	TP17_2.5 - 2.8	29-02-24	S	Jar	1								X
112	TP14_0 - 0.5	29-02-24	S	Jar	1	X		X					
113	TP13_1.0 - 1.5	29-02-24	S	Jar	1	HOLD							
114	TP13_2.0 - 2.5	29-02-24	S	Jar	1	HOLD							
115	TP21_0.6 - 1.0	01-03-24	S	Jar	1	HOLD							
					28	11	4	7	1	0	0	0	1

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



CHAIN OF CUSTODY

ALS Laboratory
please tick →

CLIENT: GHD	TURNAROUND REQUIREMENTS: <input type="checkbox"/> Standard TAT (List due date): <small>(Standard TAT may be longer for some tests e.g. Ultra Trace Organics)</small>	FOR LABORATORY USE ONLY (Circle)	
OFFICE:	<input type="checkbox"/> Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: 12627900	ALS QUOTE NO: EN/005/20	Free ice / frozen ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER:	COC SEQUENCE NUMBER (Circle)	Random Sample Temperature on Receipt	°C
PROJECT MANAGER: Skye Holloman	CONTACT PH: 0400918365	Other comment:	
SAMPLER: Malachi Hurley	SAMPLER MOBILE: 0477619707	RELINQUISHED BY: Skye Holloman	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	DATE/TIME:	DATE/TIME:
Email Reports to Skye.Holloman@ghd.com		DATE/TIME:	DATE/TIME:
Email Invoice to accounts payableAU@ghd.com		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: PLEASE RETAIN ALL SOIL SAMPLES FOR FUTURE SALINITY TESTING PENDING CLIENT APPROVAL. DO NOT DESTROY SAMPLES

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) <small>Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).</small>										Additional Information
	LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE <small>codes below</small>	(refer to)	TOTAL CONTAINERS	TRH / BTEXN / PAH / 8 Metals (Arsenic, cadmium, chromium III + VI, copper, lead, mercury, nickel, zinc)	Asbestos Presence / Absence	OCF / OPP	PFAS (short suite)	PCBs	Phenols	VOCs	CEC, clay content, pH, iron	
116	TP20_0.5 - 0.6		29-02-24	S	Jar		1	X								SALINITY EACH BAGS EN34 EN3455 EN34 PENDING CLIENT APPROVAL ADVISED HOLDING TIME IS 180 DAYS PLEASE RETAIN ALL SOIL SAMPLES FOLLOWING BELOW ANALYSIS
117	FD6		01-03-24	S	Jar		1									
118	TP11_0 - 0.2		29-02-24	S	Jar, Bag		2	X	X		X					
119	PFAS_FD1		29-02-24	S	Jar		1				X					
120	TP17_0.0 - 0.2		28-02-24	S	Jar, Bag		2	X	X							
121	TP13_1.0 - 1.5		29-02-24	S	Jar		1									
122	TP17_1.0 - 1.2		29-02-24	S	Jar		1									
123	TRIP SPIKE 20		26-02-24	S	Jar		1	X								
124	TRIP SPIKE 21		26-02-24	S	Jar		1	X								
125	TRIP BLANK		26-02-24	S	Jar		2	X								
126	TP18_0 - 0.2		29-02-24	S	Bag		1		X							
127	TP16_0.2	SNR	29-02-24	S	Bag		1		X							
128	R01_01032024		01-03-24	W	VS, AG, N		4	X								
129	TSC															
130	TSC															
131	FDS															
							19	4	4	0	2	0	0	0		

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; VS = VOA Vial Sulfuric Preserved; VB = VOA Vial Borosilicate Sulfuric Preserved; VSA = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; M = HCl Unpreserved Plastic; HS = HCl Preserved Specialized bottle; SP = Sulfuric Preserved Plastic; F = Fertilizer Preserved Glass; Z = Zinc Acetate Preserved Bottle; B = BETA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag

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 T: +61 7 3902 4600 NATA# 1261 Site# 20794	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289

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

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Auckland (Asb)	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:	GHD Pty Ltd NSW
Contact name:	Skye Holloman
Project name:	Not provided
Project ID:	12627900
Turnaround time:	5 Day
Date/Time received	Mar 11, 2024 1:29 PM
Eurofins reference	1076795

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ Sample Temperature of chilled sample on the batch as recorded by Eurofins Sample Receipt : 2.1 degrees Celsius.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ 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:

Bonnie Pu on phone : or by email: BonniePu@eurofins.com

Results will be delivered electronically via email to Skye Holloman - skye.holloman@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.



web: www.eurofins.com.au
email: EnviroSales@eurofins.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 Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Asb) 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:	GHD Pty Ltd NSW	Order No.:		Received:	Mar 11, 2024 1:29 PM
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	Report #:	1076795	Due:	Mar 18, 2024
Project Name:		Phone:	02 9239 7100	Priority:	5 Day
Project ID:	12627900	Fax:	02 9239 7199	Contact Name:	Skye Holloman
Eurofins Analytical Services Manager : Bonnie Pu					

Sample Detail						Suite B14: OCP/OPP	Moisture Set	Eurofins Suite B7
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
1	FD5	Feb 28, 2024		Soil	S24-Ma0023393		X	X
2	FD2	Feb 28, 2024		Soil	S24-Ma0023394		X	X
3	FD8	Mar 01, 2024		Soil	S24-Ma0023395	X	X	X
4	PFAS_FD2	Feb 29, 2024		Soil	S24-Ma0023396		X	X
Test Counts						1	4	4

GHD Pty Ltd NSW
 Level 15, 133 Castlereagh Street
 Sydney
 NSW 2000



NATA Accredited
 Accreditation Number 1261
 Site Number 18217

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

Attention: Skye Holloman

Report 1076795-S
 Project name
 Project ID 12627900
 Received Date Mar 11, 2024

Client Sample ID			FD5	FD2	FD8	PFAS_FD2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- Ma0023393	S24- Ma0023394	S24- Ma0023395	S24- Ma0023396
Date Sampled			Feb 28, 2024	Feb 28, 2024	Mar 01, 2024	Feb 29, 2024
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	88	< 50	< 50
TRH C29-C36	50	mg/kg	54	160	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	54	248	< 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	190	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	240	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	430	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	98	81	93	141
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			FD5	FD2	FD8	PFAS_FD2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- Ma0023393	S24- Ma0023394	S24- Ma0023395	S24- Ma0023396
Date Sampled			Feb 28, 2024	Feb 28, 2024	Mar 01, 2024	Feb 29, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	82	78	77	80
p-Terphenyl-d14 (surr.)	1	%	93	94	89	92
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)						
Chromium (trivalent)	5	mg/kg	30	53	16	20
Heavy Metals						
Arsenic	2	mg/kg	6.8	3.7	< 2	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	30	53	16	20
Copper	5	mg/kg	45	32	8.4	21
Lead	5	mg/kg	35	19	5.8	54
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.0	14	< 5	6.5
Zinc	5	mg/kg	35	25	9.1	19
Sample Properties						
% Moisture	1	%	12	20	16	6.7
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	-

Client Sample ID			FD5	FD2	FD8	PFAS_FD2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24- Ma0023393	S24- Ma0023394	S24- Ma0023395	S24- Ma0023396
Date Sampled			Feb 28, 2024	Feb 28, 2024	Mar 01, 2024	Feb 29, 2024
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
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	%	-	-	74	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	78	-
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Bolstar	0.2	mg/kg	-	-	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	-	-	< 0.2	-
Coumaphos	2	mg/kg	-	-	< 2	-
Demeton-S	0.2	mg/kg	-	-	< 0.2	-
Demeton-O	0.2	mg/kg	-	-	< 0.2	-
Diazinon	0.2	mg/kg	-	-	< 0.2	-
Dichlorvos	0.2	mg/kg	-	-	< 0.2	-
Dimethoate	0.2	mg/kg	-	-	< 0.2	-
Disulfoton	0.2	mg/kg	-	-	< 0.2	-
EPN	0.2	mg/kg	-	-	< 0.2	-
Ethion	0.2	mg/kg	-	-	< 0.2	-
Ethoprop	0.2	mg/kg	-	-	< 0.2	-
Ethyl parathion	0.2	mg/kg	-	-	< 0.2	-
Fenitrothion	0.2	mg/kg	-	-	< 0.2	-
Fensulfothion	0.2	mg/kg	-	-	< 0.2	-
Fenthion	0.2	mg/kg	-	-	< 0.2	-
Malathion	0.2	mg/kg	-	-	< 0.2	-
Merphos	0.2	mg/kg	-	-	< 0.2	-
Methyl parathion	0.2	mg/kg	-	-	< 0.2	-
Mevinphos	0.2	mg/kg	-	-	< 0.2	-
Monocrotophos	2	mg/kg	-	-	< 2	-
Naled	0.2	mg/kg	-	-	< 0.2	-
Omethoate	2	mg/kg	-	-	< 2	-
Phorate	0.2	mg/kg	-	-	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Pyrazophos	0.2	mg/kg	-	-	< 0.2	-
Ronnel	0.2	mg/kg	-	-	< 0.2	-
Terbufos	0.2	mg/kg	-	-	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	-	-	< 0.2	-
Tokuthion	0.2	mg/kg	-	-	< 0.2	-
Trichloronate	0.2	mg/kg	-	-	< 0.2	-
Triphenylphosphate (surr.)	1	%	-	-	72	-

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 13, 2024	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 13, 2024	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 13, 2024	14 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	Mar 13, 2024	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Mar 13, 2024	14 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Mar 13, 2024	28 Days
Chromium (speciated)			
Chromium (hexavalent) - Method: In-house method E057.2	Sydney	Mar 15, 2024	28 Days
Chromium (trivalent) - Method: E043 /E057 Total Speciated Chromium	Sydney	Mar 13, 2024	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Sydney	Mar 11, 2024	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water	Sydney	Mar 13, 2024	14 Days
Organophosphorus Pesticides - Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS	Sydney	Mar 13, 2024	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 Murarie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289
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Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370	Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Asb) 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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 web: www.eurofins.com.au
 email: EnviroSales@eurofins.com

Company Name:	GHD Pty Ltd NSW	Order No.:		Received:	Mar 11, 2024 1:29 PM
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	Report #:	1076795	Due:	Mar 18, 2024
Project Name:		Phone:	02 9239 7100	Priority:	5 Day
Project ID:	12627900	Fax:	02 9239 7199	Contact Name:	Skye Holloman
Eurofins Analytical Services Manager : Bonnie Pu					

Sample Detail						Suite B14: OCP/OPP	Chromium (speciated)	Moisture Set	Eurofins Suite B7
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID				
1	FD5	Feb 28, 2024		Soil	S24-Ma0023393		X	X	X
2	FD2	Feb 28, 2024		Soil	S24-Ma0023394		X	X	X
3	FD8	Mar 01, 2024		Soil	S24-Ma0023395	X	X	X	X
4	PFAS_FD2	Feb 29, 2024		Soil	S24-Ma0023396		X	X	X
Test Counts						1	4	4	4

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.
- 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 date of sampling; 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	

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, PFPa, 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 70 – 130%

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							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
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	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	103		70-130	Pass	
TRH C10-C14	%	82		70-130	Pass	
TRH C6-C10	%	103		70-130	Pass	
TRH >C10-C16	%	84		70-130	Pass	
LCS - % Recovery						
BTEX						
Benzene	%	110		70-130	Pass	
Toluene	%	116		70-130	Pass	
Ethylbenzene	%	110		70-130	Pass	
m&p-Xylenes	%	117		70-130	Pass	
o-Xylene	%	116		70-130	Pass	
Xylenes - Total*	%	117		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene	%	99		70-130	Pass	
LCS - % Recovery						
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	108		70-130	Pass	
Acenaphthylene	%	105		70-130	Pass	
Anthracene	%	104		70-130	Pass	
Benz(a)anthracene	%	108		70-130	Pass	
Benzo(a)pyrene	%	107		70-130	Pass	
Benzo(b&j)fluoranthene	%	114		70-130	Pass	
Benzo(g,h,i)perylene	%	116		70-130	Pass	
Benzo(k)fluoranthene	%	112		70-130	Pass	
Chrysene	%	110		70-130	Pass	
Dibenz(a,h)anthracene	%	106		70-130	Pass	
Fluoranthene	%	107		70-130	Pass	
Fluorene	%	113		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	107		70-130	Pass	
Naphthalene	%	109		70-130	Pass	
Phenanthrene	%	106		70-130	Pass	
Pyrene	%	109		70-130	Pass	
LCS - % Recovery						
Chromium (hexavalent)	%	101		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	102		80-120	Pass	
Cadmium	%	101		80-120	Pass	
Chromium	%	107		80-120	Pass	
Copper	%	109		80-120	Pass	
Lead	%	108		80-120	Pass	
Mercury	%	103		80-120	Pass	
Nickel	%	103		80-120	Pass	
Zinc	%	104		80-120	Pass	
LCS - % Recovery						
Organochlorine Pesticides						
Chlordanes - Total	%	73		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
4.4'-DDD	%	80			70-130	Pass		
4.4'-DDE	%	80			70-130	Pass		
4.4'-DDT	%	82			70-130	Pass		
a-HCH	%	80			70-130	Pass		
Aldrin	%	76			70-130	Pass		
b-HCH	%	86			70-130	Pass		
d-HCH	%	80			70-130	Pass		
Dieldrin	%	78			70-130	Pass		
Endosulfan I	%	81			70-130	Pass		
Endosulfan II	%	75			70-130	Pass		
Endosulfan sulphate	%	81			70-130	Pass		
Endrin	%	80			70-130	Pass		
Endrin aldehyde	%	74			70-130	Pass		
Endrin ketone	%	79			70-130	Pass		
g-HCH (Lindane)	%	88			70-130	Pass		
Heptachlor	%	77			70-130	Pass		
Heptachlor epoxide	%	76			70-130	Pass		
Hexachlorobenzene	%	77			70-130	Pass		
Methoxychlor	%	78			70-130	Pass		
LCS - % Recovery								
Organophosphorus Pesticides								
Diazinon	%	100			70-130	Pass		
Dimethoate	%	93			70-130	Pass		
Ethion	%	71			70-130	Pass		
Fenitrothion	%	73			70-130	Pass		
Methyl parathion	%	95			70-130	Pass		
Mevinphos	%	103			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	S24-Ma0023516	NCP	%	79		70-130	Pass	
TRH C10-C14	S24-Ma0022402	NCP	%	129		70-130	Pass	
TRH C6-C10	S24-Ma0023516	NCP	%	81		70-130	Pass	
TRH >C10-C16	S24-Ma0022402	NCP	%	121		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	S24-Ma0023516	NCP	%	78		70-130	Pass	
Toluene	S24-Ma0023516	NCP	%	112		70-130	Pass	
Ethylbenzene	S24-Ma0023516	NCP	%	90		70-130	Pass	
m&p-Xylenes	S24-Ma0023516	NCP	%	91		70-130	Pass	
o-Xylene	S24-Ma0023516	NCP	%	95		70-130	Pass	
Xylenes - Total*	S24-Ma0023516	NCP	%	92		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
Naphthalene	S24-Ma0023516	NCP	%	85		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S24-Ma0024419	NCP	%	91		75-125	Pass	
Cadmium	S24-Ma0024419	NCP	%	99		75-125	Pass	
Chromium	S24-Ma0024419	NCP	%	95		75-125	Pass	
Copper	S24-Ma0024419	NCP	%	104		75-125	Pass	
Lead	S24-Ma0024419	NCP	%	106		75-125	Pass	
Mercury	S24-Ma0022130	NCP	%	101		75-125	Pass	
Nickel	S24-Ma0024419	NCP	%	100		75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc	S24-Ma0024419	NCP	%	105			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S24-Ma0023519	NCP	%	84			70-130	Pass	
4.4'-DDD	S24-Ma0023519	NCP	%	80			70-130	Pass	
4.4'-DDE	S24-Ma0023519	NCP	%	82			70-130	Pass	
4.4'-DDT	S24-Ma0023519	NCP	%	90			70-130	Pass	
a-HCH	S24-Ma0023519	NCP	%	82			70-130	Pass	
Aldrin	S24-Ma0023519	NCP	%	84			70-130	Pass	
b-HCH	S24-Ma0023519	NCP	%	85			70-130	Pass	
d-HCH	S24-Ma0023519	NCP	%	84			70-130	Pass	
Dieldrin	S24-Ma0023519	NCP	%	82			70-130	Pass	
Endosulfan I	S24-Ma0023519	NCP	%	86			70-130	Pass	
Endosulfan II	S24-Ma0023519	NCP	%	80			70-130	Pass	
Endosulfan sulphate	S24-Ma0023519	NCP	%	94			70-130	Pass	
Endrin	S24-Ma0023519	NCP	%	85			70-130	Pass	
Endrin aldehyde	S24-Ma0023519	NCP	%	99			70-130	Pass	
Endrin ketone	S24-Ma0023519	NCP	%	99			70-130	Pass	
g-HCH (Lindane)	S24-Ma0023519	NCP	%	91			70-130	Pass	
Heptachlor	S24-Ma0023519	NCP	%	80			70-130	Pass	
Heptachlor epoxide	S24-Ma0023519	NCP	%	84			70-130	Pass	
Hexachlorobenzene	S24-Ma0023519	NCP	%	81			70-130	Pass	
Methoxychlor	S24-Ma0023519	NCP	%	77			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S24-Ma0034155	NCP	%	109			70-130	Pass	
Dimethoate	S24-Ma0034155	NCP	%	89			70-130	Pass	
Methyl parathion	S24-Ma0034155	NCP	%	79			70-130	Pass	
Mevinphos	S24-Ma0034155	NCP	%	85			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-Ma0023515	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S24-Ma0032257	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S24-Ma0032257	NCP	mg/kg	110	290	92	30%	Fail	Q15
TRH C29-C36	S24-Ma0032257	NCP	mg/kg	130	120	8.4	30%	Pass	
TRH C6-C10	S24-Ma0023515	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S24-Ma0032257	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S24-Ma0032257	NCP	mg/kg	190	360	62	30%	Fail	Q15
TRH >C34-C40	S24-Ma0032257	NCP	mg/kg	200	130	46	30%	Fail	Q15
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S24-Ma0032257	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-Ma0032257	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-Ma0032257	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-Ma0032257	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-Ma0032257	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-Ma0032257	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S24-Ma0023515	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chromium (hexavalent)	S24-Ma0023393	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S24-Ma0022246	NCP	mg/kg	12	9.0	25	30%	Pass
Cadmium	S24-Ma0022246	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S24-Ma0022246	NCP	mg/kg	19	20	7.6	30%	Pass
Copper	S24-Ma0022246	NCP	mg/kg	20	13	42	30%	Fail Q15
Lead	S24-Ma0022246	NCP	mg/kg	16	17	4.4	30%	Pass
Mercury	S24-Ma0022246	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	S24-Ma0022246	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Zinc	S24-Ma0022246	NCP	mg/kg	22	8.4	88	30%	Fail Q15
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	S24-Ma0023381	NCP	%	15	16	8.7	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)anthracene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S24-Ma0023395	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-HCH	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-HCH	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-HCH	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-HCH (Lindane)	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S24-Ma0023395	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	S24-Ma0023395	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate								
Organophosphorus Pesticides				Result 1	Result 2	RPD		
Azinphos-methyl	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Bolstar	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorfenvinphos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Chlorpyrifos-methyl	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Coumaphos	S24-Ma0023395	CP	mg/kg	< 2	< 2	<1	30%	Pass
Demeton-S	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Demeton-O	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Diazinon	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dichlorvos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Dimethoate	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Disulfoton	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
EPN	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethoprop	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ethyl parathion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenitrothion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fensulfothion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Fenthion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Malathion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Merphos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Methyl parathion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Mevinphos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Monocrotophos	S24-Ma0023395	CP	mg/kg	< 2	< 2	<1	30%	Pass
Naled	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Omethoate	S24-Ma0023395	CP	mg/kg	< 2	< 2	<1	30%	Pass
Phorate	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pirimiphos-methyl	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Pyrazophos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Ronnel	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Terbufos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tetrachlorvinphos	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Tokuthion	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Trichloronate	S24-Ma0023395	CP	mg/kg	< 0.2	< 0.2	<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
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Adam Bateup	Analytical Services Manager
Fang Yee Tan	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic



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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Appendix J

QA/QC assessment

J-1 Quality assurance and quality control

J-1-1 Field QA/QC assessment

An evaluation of the field and laboratory data quality was undertaken in accordance with the NEPC (2013) Schedule B2: Assessment of data quality. Data quality indicators (DQI) including precision, accuracy (or bias), representativeness, completeness and comparability have been outlined in Appendix B and were reviewed to determine the usability of the data collected for the purpose of this investigation. The QA/QC results are presented in summary tables at the end of this appendix.

J-1-2 Relative Percentage Difference

Relative percentage difference (RPD) calculations are used to assess how closely primary and inter/intra duplicate sample results match. RPDs are a quantitative measure of the accuracy of the analytical results and are calculated in accordance with the procedure described in AS 4481.2 – 2005 (Standards Australia, 2005). According to AS4482.1 – 2005 typical RPDs are expected to range between 30% and 50%, however, this may be higher for organics as acceptance criteria.

Where a result below the laboratory limit (LOR) for one of the paired samples, the concentration assigned to that sample is the LOR. Where both results are reported below the LOR the RPD is not calculated. Duplicate pairs are outlined in Table J.1 below.

Table J.1 Duplicate pairs assessed

Duplicate type	Primary sample ID	Duplicate sample ID
Intra-laboratory	TP03_1.0-1.2	FD1
Inter-laboratory	TP03_1.0-1.2	FD2
Intra-laboratory	TP04_0-0.2	FD3
Intra-laboratory	TP08_0.5-0.6	FD4
Inter-laboratory	TP08_0.5-0.6	FD5
Intra-laboratory	TP24_0-0.2	FD7
Inter-laboratory	TP24_0-0.2	FD8
Intra-laboratory	TP30_0-0.1	FD9
Intra-laboratory	TP30_0-0.1	FD10
Intra-laboratory	TP12_0-0.2	PFAS_FD1
Inter-laboratory	TP12_0-0.2	PFAS_FD2

There were 17 exceedances of RPD criteria across 7 duplicate pairs. Given most of these exceedances were reported for metals and all duplicate pairs were taken from fill material, these exceedances are considered to be attributable to heterogeneity in fill. However, it is noted that 7 of these were reported between TP03_1.0-1.2 and FD2 which may indicate a potential sample handling issue.

Considering the above and that the majority of RPDs were within acceptable limits, the precision of the data is considered sufficient to achieve the objective of this investigation.

J-1-3 Trip blanks and rinsate

Analytical results for the rinsate sample (R01) completed on a hand trowel (collected on 1 March 2024) and laboratory supplied trip blank soil sample (TB) all reported below the laboratory detection limits. This indicates that no measurable cross contamination was introduced during sampling or sample/transport handling, additionally that the testing laboratory was not likely to report “false positives”. The results of the trip blank and rinsate blank are presented in Tables J2 and J3 respectively.

J-1-4 Trip spike

Two trip spikes for soil were analysed during the investigation with the results presented in Table J4. Analysis of trip spike found recoveries within the acceptable range of 70 – 130% indicating no significant loss of volatile compounds during handling and transportation. This indicates that sample preservation techniques were adequate during the investigation and subsequent transport to the primary laboratory.

J-2 Laboratory QA/QC assessment

Table J.2 provides an overview of laboratory QA/QC quality controls.

Table J.2 Laboratory QA/QC assessment

QA/QC Assessment	Comment
Appropriate methodologies used for sample analyses	<p>All laboratory transcripts were NATA stamped and signed by a NATA signatory. The laboratories used in the investigation were ALS and Eurofins.</p> <p>Statistical data presented in the laboratory QA/QC reports were considered adequate in demonstrating precision and accuracy of the methods used to analyse field samples.</p>
Laboratory QA/QC plan	<p>Copies of the signed chain of custody forms are presented in Appendix I of the report. All samples were received and analysed within the specified laboratory holding times with the exception of the following samples:</p> <ul style="list-style-type: none"> – TP04_0-0.2, which was 5 days overdue for multiple analyses. – TP04_0.5-0.6, which was 5 days overdue for multiple analyses. – TP10_0-0.2, which was 5 days overdue for multiple analyses. – TP10_0.5-0.6, which was 6 days overdue for pH extraction. – TP11_0-0.2, which was 4 days overdue for multiple analyses. – TP15_0-0.5, which was 4 days overdue for multiple analyses. – TP17_2.5-2.8, which was 5 days overdue for pH extraction. – TP27_0-0.2, which was 3 days overdue for multiple analyses. – FD3, which was 5 days overdue for multiple analyses. – R01, which was 3 days overdue for PAH/TRH extraction. <p>The analytical methods used are documented in the laboratory reported in Appendix I.</p> <p>The NATA certified laboratories utilised for this assessment undertook their own data quality assurance and quality control procedures for sample analysis. GHD has reviewed the internal data control provided within the laboratory reports. Non-compliances are noted below:</p> <ul style="list-style-type: none"> – 1076795-S <ul style="list-style-type: none"> • Reported laboratory duplicate RPDs outside the limits for Copper, Zinc and TRH fractions C15-C28, C16-C34 & C34-C40. Further assessment indicated these results passed Eurofins Environment Testing's QC – Acceptance Criteria. – ES2407624 <ul style="list-style-type: none"> • Reported laboratory duplicate and matrix spike quality control frequencies not within specification for PAH/Phenols & TRH – Semi volatile fraction in two samples. • Reported matrix spike recoveries less than lower data quality objective for Hexavalent Chromium in seven samples. The laboratory report that this may be due to matrix interference. This may indicate underreporting however based on the results this is unlikely as other samples measured concentrations that were below the LOR. • Reported duplicate recoveries less than the lower data quality objective for 2-Chlorophenol-D4 in five samples. • Reported duplicate RPDs that exceeded the LOR based limits for total metals in six samples. Four of these were for anonymous samples which are samples taken from non-project batches and these samples are not reflective of the project matrix. The remaining two samples are considered marginal exceedances of the lab based DQOs. • The sample receipt notification (SRN) reported sample temperatures greater than 6°C. It noted that the NEPM recommends water and soil samples chilled to less than or equal to 6°C for chemical analysis. Given that trip spike recoveries were within the acceptable range, this would indicate that sample preservation techniques were adequate during the investigation and transport.

QA/QC Assessment	Comment
	<ul style="list-style-type: none"> The sample receipt notification (SRN) for lab report ES2407624 reported sample container non-compliances for TP02_0-0.2 and TP11_0-0.2 which were sampled using a HDPE soil jar rather than Soil Glass Jar – Unpreserved. This was in relation to the following analyses: Hexavalent Chromium (chromium (VI)), PAH, phenols, OCP/OPP (pesticides), TRH, and BTEX. The use of HDPE containers for the above locations is not expected to materially impact the outcome of this investigation with contaminants chromium (VI), PAH, phenols, TRH and BTEX reported either below the laboratory LOR and/or adopted assessment criteria within soil samples collected in all other locations within the investigation area. Additionally, OCP concentrations reported within locations within Lot 1 were of a similar magnitude to sample TP02_0 – 0.2. The non-compliances noted above are considered unlikely to materially affect quality of the dataset.

J-2-1 QA/QC summary

The review of the QA/QC program indicates that the DQI indicators have primarily been met. The analytical data is therefore considered to be an acceptable quality with which to draw meaningful conclusions regarding impacts to contamination at the site.



**Appendix J
Table J2
Trip Blank - Soil**

**Landcom
Redmond Place
Preliminary Site Investigation**

		Date	26 Feb 2024
		Lab Report Number	ES2407624
		Matrix Type	Soil
	Unit	EQL	
BTEXN			
Naphthalene (value used in F2 calc)	mg/kg	1	<1
Benzene	mg/kg	0.2	<0.2
Toluene	mg/kg	0.5	<0.5
Ethylbenzene	mg/kg	0.5	<0.5
Xylene (o)	mg/kg	0.5	<0.5
Xylene (m & p)	mg/kg	0.5	<0.5
Xylene Total	mg/kg	0.5	<0.5
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2	<0.2
TRH - NEPM 2013			
F1 (C6-C10 minus BTEX)	mg/kg	10	<10
C6-C10 Fraction	mg/kg	10	<10
TRH - NEPM 1999			
C6-C9 Fraction	mg/kg	10	<10



**Appendix J
Table J3
Trip Blank - Water**

**Landcom
Redmond Place
Preliminary Site Investigation**

			Date
			01 Mar 2024
			Lab Report Number
			ES2407624
			Matrix Type
			Water
	Unit	EQL	
Metals			
Arsenic	mg/L	0.001	<0.001
Cadmium	mg/L	0.0001	<0.0001
Chromium (III+VI)	mg/L	0.001	<0.001
Copper	mg/L	0.001	<0.001
Lead	mg/L	0.001	<0.001
Mercury	mg/L	0.0001	<0.0001
Nickel	mg/L	0.001	<0.001
Zinc	mg/L	0.005	<0.005
BTEXN			
Naphthalene (value used in F2 calc)	µg/L	5	<5
Benzene	µg/L	1	<1
Toluene	µg/L	2	<2
Ethylbenzene	µg/L	2	<2
Xylene (o)	µg/L	2	<2
Xylene (m & p)	µg/L	2	<2
Xylene Total	µg/L	2	<2
BTEX (Sum of Total) - Lab Calc	µg/L	1	<1
TRH - NEPM 2013			
F1 (C6-C10 minus BTEX)	µg/L	20	<20
C6-C10 Fraction	µg/L	20	<20
F2 (>C10-C16 minus Naphthalene)	µg/L	100	<100
>C10-C16 Fraction	µg/L	100	<100
F3 (>C16-C34 Fraction)	µg/L	100	<100
F4 (>C34-C40 Fraction)	µg/L	100	<100
>C10-C40 (Sum of Total)	µg/L	100	<100
TRH - NEPM 1999			
C6-C9 Fraction	µg/L	20	<20
C10-C14 Fraction	µg/L	50	<50
C15-C28 Fraction	µg/L	100	<100
C29-C36 Fraction	µg/L	50	<50
C10-C36 (Sum of Total)	µg/L	50	<50
PAHs - standard 16			
Acenaphthene	µg/L	1	<1.0
Acenaphthylene	µg/L	1	<1.0
Anthracene	µg/L	1	<1.0
Benz(a)anthracene	µg/L	1	<1.0
Benzo(a)pyrene	µg/L	0.5	<0.5
Benzo(b)fluoranthene	µg/L	1	<1.0
Benzo(k)fluoranthene	µg/L	1	<1.0
Benzo(g,h,i)perylene	µg/L	1	<1.0
Chrysene	µg/L	1	<1.0
Dibenz(a,h)anthracene	µg/L	1	<1.0
Fluoranthene	µg/L	1	<1.0
Fluorene	µg/L	1	<1.0
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0
Naphthalene	µg/L	1	<1.0
Phenanthrene	µg/L	1	<1.0
Pyrene	µg/L	1	<1.0
PAHs (Sum of total) - Lab calc	µg/L	0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	µg/L	0.5	<0.5

Trip Spikes

Lab Report Number	Matrix Type	Analysis Batch	Field ID	Sampled Date/Time	Chem Group	Chem Name	Trip Spike Result	Trip Spike Control	Result Units	Spike Recovery %	LCL	UCL	Method Name	Lab Sample ID	Sample Type
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Ethylbenzene	6	6.3	mg/kg	95.238			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Xylene (m & p)	6.6	6.9	mg/kg	95.652			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Toluene	4.3	4.6	mg/kg	93.478			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Xylene Total	9.3	9.8	mg/kg	94.898			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Benzene	< 0.2	< 0.2	mg/kg	100			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Naphthalene (value used in F2 calc)	< 1	< 1	mg/kg	100			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	Xylene (o)	2.7	2.9	mg/kg	93.103			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 20	26/02/2024 15:00	BTEXN	BTEX (Sum of Total) - Lab Calc	19.6	20.7	mg/kg	94.686			EP080: BTEXN	ES2407624123	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Ethylbenzene	5.6	5.7	mg/kg	98.246			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Xylene (m & p)	6.2	6.3	mg/kg	98.413			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Toluene	4	4.2	mg/kg	95.238			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Xylene Total	8.8	8.9	mg/kg	98.876			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Benzene	< 0.2	< 0.2	mg/kg	100			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Naphthalene (value used in F2 calc)	< 1	< 1	mg/kg	100			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	Xylene (o)	2.6	2.6	mg/kg	100			EP080: BTEXN	ES2407624124	Trip_S
ES2407624	Soil	2024-03-11	TRIP SPIKE 21	26/02/2024 15:00	BTEXN	BTEX (Sum of Total) - Lab Calc	18.4	18.8	mg/kg	97.872			EP080: BTEXN	ES2407624124	Trip_S

Trip Spike Recoveries. Where no lab LCL and UCL is available, user defined limits between 70% and 130% have been adopted for non-compliance.

Appendix K

EIL Calculations

Inputs	
Select contaminant from list below	
Cr_III	
Below needed to calculate fresh and aged ACLs	
Enter % clay (values from 0 to 100%)	
16	
Below needed to calculate fresh and aged ABCs	
Measured background concentration (mg/kg). Leave blank if no measured value	
or for fresh ABCs only	
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration	
1.5	
or for aged ABCs only	
Enter State (or closest State)	
NSW	
Enter traffic volume (high or low)	
low	

Outputs		
Land use	Cr III soil-specific EILs	
	(mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	85	160
Urban residential and open public spaces	210	470
Commercial and industrial	330	780

Inputs	
Select contaminant from list below	
Cu	
Below needed to calculate fresh and aged ACLs	
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)	
9.5	
Enter soil pH (calcium chloride method) (values from 1 to 14)	
6.2	
Enter organic carbon content (%OC) (values from 0 to 50%)	
1	
Below needed to calculate fresh and aged ABCs	
Measured background concentration (mg/kg). Leave blank if no measured value	
or for fresh ABCs only	
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration	
1.5	
or for aged ABCs only	
Enter State (or closest State)	
NSW	
Enter traffic volume (high or low)	
low	

Outputs		
Land use	Cu soil-specific EILs	
	(mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	55	80
Urban residential and open public spaces	100	200
Commercial and industrial	150	290

Inputs	
Select contaminant from list below	
Ni	
Below needed to calculate fresh and aged ACLs	
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)	
9.5	
Below needed to calculate fresh and aged ABCs	
Measured background concentration (mg/kg). Leave blank if no measured value	
or for fresh ABCs only	
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration	
1.5	
or for aged ABCs only	
Enter State (or closest State)	
NSW	
Enter traffic volume (high or low)	
low	

Outputs		
Land use	Ni soil-specific EILs	
	(mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	15	30
Urban residential and open public spaces	55	150
Commercial and industrial	100	260

Inputs	
Select contaminant from list below	
Zn	
Below needed to calculate fresh and aged ACLs	
Enter cation exchange capacity (silver thiourea method) (values from 0 to 100 cmolc/kg dwt)	
9.5	
Enter soil pH (calcium chloride method) (values from 1 to 14)	
6.2	
Below needed to calculate fresh and aged ABCs	
Measured background concentration (mg/kg). Leave blank if no measured value	
or for fresh ABCs only	
Enter iron content (aqua regia method) (values from 0 to 50%) to obtain estimate of background concentration	
1.5	
or for aged ABCs only	
Enter State (or closest State)	
NSW	
Enter traffic volume (high or low)	
low	

Outputs		
Land use	Zn soil-specific EILs	
	(mg contaminant/kg dry soil)	
	Fresh	Aged
National parks and areas of high conservation value	50	160
Urban residential and open public spaces	160	460
Commercial and industrial	250	680



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