Detailed Site Investigation

Australian Rail Track Corporation

Goulburn Wheat Yard Sidings
Off Sloane Street,
Goulburn NSW 2580

October 2022

Ref. 21075 R02

CAVVANBA
consulting

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Report Details

Report:

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Goulburn, New South Wales 2580

Ref: 21075 R02

for

Australian Rail Track Corporation Limited

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Executive summary

Cavvanba Consulting Pty Ltd was commissioned by Australian Rail Track Corporation Limited (ARTC) to undertake a detailed site investigation at the Goulburn Wheat Yard Sidings, located off Sloane Street, Goulburn, New South Wales (NSW) 2580 (herein referred to as the site).

This detailed site investigation has been completed following an environmental site assessment completed at the site by Cavvanba in 2021, and in accordance with Sampling and Analysis Quality Plan – Detailed Site Investigation, Goulburn Wheat Yard Sidings (Cavvanba, April 2022) (referred to as the SAQP).

The objectives of the investigation were to:

- *supplement previous investigation data and further understand and delineate the extent of contamination associated with the data gaps previously identified;*
- *characterise the contamination present at the site to inform an appropriate assessment of potential risks to human health and/or the environment under the current land use scenario; and*
- *provide further information to assist the NSW Environment Protection Authority (EPA) in their decision making on whether the site requires regulation under the Contaminated Land Management Act (CLM Act).*

To meet the project objectives, the scope of work included the investigation of soil at 85 locations, and groundwater at six locations, which has been completed in accordance with the SAQP.

The site is an operational railway yard with a long history of industrial activity commencing in the early 1900s. The site was mainly used for the storage and transfer of wheat, wool and/or livestock. Area A was historically used for the bulk storage and transfer of fuels and oils. Anecdotal evidence suggests that the No. 1 railway siding road was also historically used as a siding for the former Woodlawn metal ore concentrate mine.

The site was largely unsealed. The soil profile comprised of a silty clayey gravel / gravelly clay fill material to a maximum depth of 1.8 metres within Area A, and 1.2 metres within Area B, underlain by natural light brown / red mottled sandy clay and siltstone. Fill material within Area B consisted of black sandy gravel with evidence of coal ash, particularly within close proximity to the railway sidings and railway infrastructure.

Fragments of non-friable asbestos containing material were identified in soil at one location within Area A, and on soil at three locations within Area B.

Area A – Former fuel depot

Lead was reported to exceed the health investigation level of 1,500 mg/kg within surface soils at one location, with a reported concentration of 4,670 mg/kg. The source of lead contamination within this area is likely associated with lead-based paints, and differed to that observed within Area B, with the absence of elevated co-located copper and zinc concentrations.

All remaining potential contaminants of concern in soil within Area A were reported below the adopted health-based assessment criteria.

The presence of lead at one location within Area A is considered to represent a hotspot. Pending the remedial objectives for the broader site, this area may require additional investigation to further define the nature and lateral extent of contamination.

Area B – Former wheat yard sidings

Lead was reported to exceed the health investigation level at 23 locations advanced within Area B, with a maximum reported concentration of 193,000 mg/kg.

Lead exceedances were identified to be widespread across the central and eastern portion of Area B, with the highest concentrations being reported within and around the existing railway siding infrastructure. The lead exceedances directly corresponded to surface and shallow fill material present to a maximum depth of approximately 0.5 metres, and were delineated vertically by either samples collected from the underlying fill material or natural sandy clay material observed. The lateral extent still remains uncertain to the east within the operational railway corridor, however given the knowledge of the source, it is considered unlikely to extend beyond the Main South railway line.

Based on the reported groundwater analytical results, there was no indication that groundwater beneath the site has been impacted by surface and shallow fill lead contaminated soils.

Area C – Former stockyards

Concentrations of potential contaminants of concern in soil within Area C were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

Area C is considered suitable for ongoing commercial/industrial use in line with the current zoning.

Area D – Access track

Concentrations of potential contaminants of concern in soil within Area D were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

Area D is considered suitable for ongoing commercial/industrial use in line with the current zoning.

Site suitability

The conceptual site model refined as part of this investigation has identified an unacceptable risk to human health and the environment which requires remediation. This is due to elevated lead concentrations in surface soils and shallow fill material within Area B which are exposed and accessible to site workers. In all cases where lead exceedances were reported, co-located elevated concentrations of arsenic, copper and/or zinc were also identified, indicating that the source of contamination may be associated with metal ore concentrate historically deposited within this area.

The information collected as part of this investigation is considered to be sufficient to adequately characterise the nature and extent of contamination within the site boundary. It is recommended that a remedial action plan / options assessment be prepared for the site, in conjunction with the application of the interim environmental management plan to ensure the appropriate protection of human health and the environment. This must consider on-site dust management control and monitoring.

It is recommended that this report be provided to the NSW EPA to assist in their decision making on whether the site requires regulation under the Contaminated Land Management Act 1997.

1.0 Introduction

Cavvanba Consulting Pty Ltd (Cavvanba) was commissioned by Australian Rail Track Corporation Limited (ARTC) to undertake a Detailed Site Investigation (DSI) at the Goulburn Wheat Yard Sidings, located off Sloane Street, Goulburn, New South Wales (NSW) 2580 (herein referred to as the site). The site location is provided as Figure 1.

The scope of work and methodology was consistent with that detailed within Cavvanba's letter proposal titled '*Detailed Site Investigation – Goulburn Wheat Yard Sidings*' submitted to ARTC on 23 March 2022 (Cavvanba Ref: P21075 V03). This report should be read in its entirety, with specific reference to Cavvanba's *General Limitations*, included as Section 1.6.

1.1 Background

The site is located from railway chainage 225.6 kilometres (km) to 227.1 km (approx.) on the upside of the Main South railway line, and is accessed via Sloane Street in the central portion of the site.

The site covers a large area, and is comprised of a number of areas of concern, some of which have previously been investigated and/or remediated. Widespread lead contamination has been reported throughout the former Wheat Yard Sidings along an approximately 1.3 kilometre (km) stretch, with a maximum detected concentration of 44,000 mg/kg. The elevated lead concentrations were identified within the area adjacent to the current railway refuge loop on-site and strongly correlate to shallow fill material present to a maximum depth of 0.5 m.

This detailed site investigation has been completed in accordance with *Sampling and Analysis Quality Plan – Detailed Site Investigation, Goulburn Wheat Yard Sidings, Off Sloane Street, Goulburn NSW 2580* (Ref. 21075 R01) (Cavvanba, April 2022) (referred to as the SAQP).

The SAQP outlined a scope for further investigation of data gaps identified following the development of the conceptual site model which was based on previous environmental investigation information (refer to Section 3.0). The following data gaps were to be addressed to adequately characterise the potential risk to human health under a commercial/industrial land use scenario:

- extent of lead contamination;
- nature and extent of potential contamination as a result of the former fuel depot in the northern portion of the site; and
- absence of appropriate characterisation across the broader site area, including the former stockyards and access track in the southern portion of the site.

1.1.1 Regulatory status

The site was notified to the NSW EPA under the duty to report obligations, Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) (as amended in 2008). As such, the site is on the list of notified sites and is being assessed by the EPA to determine whether regulation under the CLM Act is required.

1.2 Previous environmental investigations

The site has been subject to limited investigation since 2021. The following investigations were made available to Cavvanba for review:

- *Preliminary Site Investigation – Goulburn Wheat Yard Sidings, Off Sloane Street, Goulburn, NSW 2580* (Ref. 21028 R01) (Cavvanba, 2021);
- *Stockpile Assessment - Off Sloane Street, Goulburn, NSW 2580* (Ref. 21065 L01) (Cavvanba, 2021); and

- *Environmental Site Assessment – Goulburn Railway Yard, Off Sloane Street, Goulburn, NSW 2580* (Ref. 21072 R01) (Cavvanba, 2022).

1.2.1 Interim management plan

An *Interim Environmental Management Plan – Goulburn Railway Yards* (Cavvanba, 2022b) was prepared by Cavvanba based on the findings of the previous investigations completed. This plan was developed to ensure that all practicable steps were taken to minimise the potential risk of exposure to contamination at the site until additional information is obtained which supports more permanent measures, or demonstrates that the site is suitable for its intended land use.

1.3 Areas excluded from this investigation

1.3.1 Former JS Hollingsworth & Sons

Cavvanba understands that the former JS Hollingsworth site has been appropriately characterised and a remediation options assessment has been drafted. Therefore, this area of concern has been excluded from this DSI.

1.3.2 Former Caltex Depot

The former Caltex Depot has remained vacant and unused following the completion of remediation and validation activities in 2013. This area has been excluded from this DSI as it was considered suitable for continued commercial/industrial land use.

1.3.3 Previously assessed stockpile

A large stockpile remains present within Area A on-site. This stockpile was previously assessed by Cavvanba in 2021, as discussed in Section 3.2. This stockpile has therefore, been excluded from this DSI.

1.4 Objective

The objectives of the DSI were to:

- supplement previous investigation data and further understand and delineate the extent of contamination associated with the data gaps previously identified;
- characterise the contamination present at the site to inform an appropriate assessment of potential risks to human health and/or the environment under the current land use scenario; and
- provide further information to assist the NSW EPA in their decision making on whether the site requires regulation under the CLM Act.

1.5 Scope of work

To achieve the objectives outlined above, the following scope of work was undertaken in accordance with the SAQP, and based on the requirements outlined in the following guidelines:

- NSW EPA (2020) *Consultants Reporting on Contaminated Land*;
- NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd edition)*; and
- *National Environment Protection Council (NEPC) National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM (2013)) – Schedule B2: Guideline on Site Characterisation* (2013).

The scope of the investigation components included the following activities:

- Completion of a site walkover and visual inspection for key features within areas of environmental concern, and to provide for any necessary improvements in the investigation design.
- Advancement of 12 boreholes to a maximum depth of 8 metres (m) using a combination of hand augering, and mechanical drilling techniques.
- Advancement of 73 test pits using an excavator to natural soils, where achievable, being a maximum depth of 2.0 m.
- A photoionisation detector (PID) and portable x-ray fluorescence (XRF) analyser was used as a field screening tool to guide the assessment and assist in targeting and delineating contamination source areas.
- Logging of the lithology at each soil bore / test pit by an experienced Cavvanba environmental engineer with soil samples collected for laboratory analysis at various depth intervals until termination.
- Conversion of six boreholes to groundwater monitoring wells.
- Development and purging of newly installed groundwater monitoring wells to enable the collection of groundwater samples considered representative of the surrounding aquifer.
- Gauging and sampling of all newly installed groundwater monitoring wells.
- Submission of soil and groundwater samples to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of potential contaminants of concern (PCOCs).
- Survey of newly installed groundwater monitoring wells to metres Australian Height Datum (AHD) and eastings and northings by a registered surveyor.
- Preparation of this DSI report detailing the results of the investigation and a statement regarding site suitability and any recommendation for further investigation (if necessary), remediation and/or management.

1.6 Limitations

The findings of this report are based on the objectives and scope of work outlined above. Cavvanba performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental assessment profession. No warranties or guarantees, express or implied, are made. Subject to the scope of work, Cavvanba's assessment is limited strictly to identifying typical environmental conditions associated with the subject property, and does not include evaluation of any other issues. This report does not comment on any regulatory obligations based on the findings, for which a legal opinion should be sought. This report relates only to the objectives and scope of work stated, and does not relate to any other works undertaken for the Client.

The report and conclusions are based on the information obtained at the time of the assessment. Changes to the subsurface conditions may occur subsequent to the investigation described herein, through natural processes or through the intentional or accidental addition of contaminants, and these conditions may change with space and time.

The site history, and associated uses, areas of use, and potential contaminants, were determined based on the activities described in the scope of work. Additional site history

information held by the Client, regulatory authorities, or in the public domain, which was not provided to Cavvanba or was not sourced by Cavvanba under the scope of work, may identify additional uses, areas of use and/or potential contaminants. The information sources referenced have been used to determine site history and desktop information regarding local subsurface conditions. While Cavvanba has used reasonable care to avoid reliance on data and information that is inaccurate or unsuitable, Cavvanba is not able to verify the accuracy or completeness of all information and data made available.

Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history, and which may not be expected at the site. The absence of any identified hazardous or toxic materials on the subject property, should not be interpreted as a warranty or guarantee that such materials do not exist on the site. If additional certainty is required, additional site history or desktop studies, or environmental sampling and analysis, should be commissioned.

The results of this assessment are based upon site inspection and fieldwork conducted by Cavvanba personnel and information provided by the Client. All conclusions regarding the property area are the professional opinions of the Cavvanba personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, Cavvanba assumes no responsibility or liability for errors in any data obtained from regulatory agencies, information from sources outside of Cavvanba, or developments resulting from situations outside the scope of this project.

2.0 Site setting

2.1 Site identification and description

The site is located from railway chainage 225.6 km to 227.1 km (approx.) on the upside of the Main South railway line, and is accessed via Sloane Street in the central portion of the site (north of the former JS Hollingsworth & Sons site). The majority of the site is unsealed, and comprises a Refuge Loop, and five railway sidings referred to as the No.1 to No. 5 Up Sidings. A former stockyards was historically present in the southern portion of the site, and a former fuel depot in the northern portion, as presented on Figure 2.

The site is bound by:
- a chain-link fence along Braidwood Road and the associated railway overpass in the north;
- an agricultural fence and the Hume Highway Overpass to the south;
- a chain-link and agricultural fence along Sloane Street to the west; and
- the Refuge Loop railway line (inclusive) to the east.

In the absence of a surveyed boundary, the 'six-foot' between the Main South Up railway line and the Refuge Loop railway line to the east of the site is considered to be the eastern site boundary.

The site identification and land use details are provided below.

Site Owner:	Transport for New South Wales (TfNSW)
Site Manager:	ARTC
Lessee:	N/A.
Site Address:	Off Sloane Street, Goulburn NSW 2580
Legal Property Description:	Part Lot 1 in Deposited Plan (DP) 1187262 and Part Lot 2 in DP 1185735
Property area:	Approximately 76,903 m^2
Co-ordinates:	Latitude: -34.769499 Longitude: 149.711348
Local Government Authority:	Goulburn – Mulwaree Council
Elevation:	Approximately 638 metres (m) Australian Height Datum (AHD).
Landuse:	Commercial / Industrial – Railway yards
Zoning:	IN1 – General Industrial / RU1 – Primary Production (small portion)

2.2 Site Stratification

For the purposes of this DSI, the site was stratified based on the site history, layout, and current and historical land use activities, as discussed in the SAQP. The following extract from the ASC NEPM (2013) describes a stratified sampling approach:

> *In stratified sampling, the assessment area (generally the potentially contaminated area) is separated into non-overlapping sub-areas (or strata) which are known or expected to be more homogeneous than the whole assessment area. Different sampling patterns and densities may be used in the different subareas.*
>
> *The strata may be chosen on the basis of spatial or temporal proximity, or on the basis of pre-existing knowledge (e.g. site history, soil type), or professional judgement. The main advantages of this design are:*
> - *potential for achieving greater precision in estimates of the mean and variance where the measurement of interest is strongly correlated with the variable used to define the strata*
> - *calculation of reliable estimates for subgroups of special interest.*

The site was therefore stratified into the following areas of concern, as presented on Figure 2:

- *Area A – Former Fuel Depot*, located in the northern portion of the site and comprising an approximate area of 5,000 m^2;
- *Area B – Former Wheat Yard Sidings*, spanning the entire length of the site and comprising an approximate area of 5.4 hectares (ha);
- *Area C – Former Stockyards*, located in the southern portion of the site and comprising an approximate area of 1.2 ha;
- *Area D – Access Track*, located in the southern portion of the site and comprising an approximate area of 2,000 m^2;
- *Area E – Former JS Hollingsworth & Sons*, located in the central-southern portion of the site and comprising an approximate area of 3,200 m^2 (excluded from this investigation); and
- *Area F – Former Caltex Depot*, located in the southern portion of the site and comprising an approximate area of 4,500 m^2 (excluded from this investigation).

2.3 Surrounding environment

Land use features surrounding the broader site area are summarised below:

North: The Braidwood Road Overpass is located immediately to the north followed by the Goulburn ARTC Provisioning Centre. Residential properties are located more broadly to the north beyond Sloane Street followed by the Goulburn Central Business District.

East: The Main South railway line is located immediately to the east followed by the Goulburn Railway Workshops and the Goulburn Roundhouse. Braidwood Road, rural residential properties and agricultural land are located more broadly to the east of the site.

South: The Main South railway line extends to the south of the site. The Hume Highway Overpass is located immediately adjacent to the south followed by rural residential properties and agricultural land.

West: Sloane Street borders the site followed by residential properties in the northern and central portions of the site. The former Goulburn regional livestock saleyard is located on the corner of Sloane Street and Finlay Road, and a nursey is located to the southwest of the site on the corner

of Sloane and Dossie Street. It is noted that an operational Caltex fuel depot is located within the railway corridor, however does not form part of the site.

2.4 Site history

The site has a long history of rail related activities, which has included different tenants and associated land uses.

The entire site was agricultural land up until a severe mouse plague occurred in the Wagga Wagga region in 1918 which disrupted the wheat industry. Two emergency wheat dumps were established in close proximity to the site, and the railway sidings were constructed to transfer the bagged wheat from Wagga Wagga to the Goulburn Wheat dumps. The railway yards on-site were then used for the storage and transport of wool, and livestock within the southern portion of the site adjacent to the livestock yards opposite Sloane Street. According to anecdotal evidence provided as part of the PSI, the No. 1 railway siding road was historically used as a siding for the former Woodlawn Mine. The Woodlawn Mine was a metal ore concentrate mine which commenced operations in 1978.

The ownership / management of the northern-most fuel depot remains uncertain, however is understood to have operated from prior to 1944 to the mid-1990's when the site was demolished.

2.5 Environmental setting

2.5.1 Topography and hydrology

The site is situated at approximately 638 m AHD within the Southern Tablelands region of NSW. The western boundary of the site is elevated at approximately 640 m AHD, with a sudden reduction in elevation of approximately 3 m – 4 m towards the area of the railway lines / sidings to create a level surface.

An escarpment approximately 30 higher than the site, is located to the west beyond Sloane Street. The site gradually slopes to the east towards the Mulwaree River, following the natural eastern slope from the base of the escarpment.

Surface water and stormwater appears to be controlled and directed to the stormwater infrastructure that is currently present at the site. Cavvanba understands that the site receives stormwater from Sloane Street to the west of the site, which discharges overland to an earthen stormwater drainage channel on-site. It is understood that all stormwater would be directed to below ground stormwater infrastructure and discharge beneath the railway corridor to the east, eventually discharging to the Mulwaree River, located approximately 580 m from the site. The Wollondilly River is located approximately 3 kilometres (km) north of the site.

An open drainage line is located immediately adjacent to the south of the site. However, based on the orientation and layout of the site, surface water does not appear to drain to this area.

2.5.2 Soils and geology

Soils

Based on a review of the *Atlas of Australian Soils*, soils beneath the site are characterised as Sodosol described as the following:

> *Sodosol: Undulating to hilly country: chief soils are hard neutral and acid yellow mottled soils (Dy3.42 and Dy3.41) in a general pattern as follows: (i) undulating to hilly slopes of various (Dy) and (Dr) soils, including (Dy3.41), (Dy3.42), (Dy3.2), (Dr2.2), (Dr2.4); (ii) (Dy3.42) and sometimes (Dr3.42) soils in basins which merge with unit Va21 and lower-lying sites generally; and (iii) less frequently (Gn2. 15) and (Gn2.25) soils on gently undulating areas, usually situated between (i) and (ii).*

According to previous environmental investigations conducted at the site, natural soils have been characterised as soft, high plasticity light brown sandy clays, with red / orange mottling, underlain by orange gravelly sand / gravelly clay and sandy clay to depths of approximately 10 m. These are typical of alluvial soils, and are consistent with the described geology.

Geology

According to the *Goulburn 1:250,000 Geological Series Sheet 55-12* (Second Edition, 2013), the site is located underlain by Cainozoic Aged alluvium consisting of gravels and sands overlying Palaeozoic Aged Gundary beds consisting of sandstone, siltstone volcanic mudstone and lithic-quartz sandstone.

Siltstone bedrock was reported to be present from approximately 2.0 m to 8.0 m in the north-western portion of the site and 9 m to 12 m in the southern portion of the site.

2.5.3 Hydrogeology

According to *Combined Phase 1 and 2 Environmental Site Assessment -Caltex Goulburn Fuel Depot, Sloane Street, Goulburn NSW* (Parsons Brinckerhoff Australia Pty Limited, 2011), shallow / perched groundwater was encountered at depths ranging from 2.5 m to 5 m within the gravelly clay and gravelly sand layers. However, regional groundwater was reported to be present within the underlying sandy clay and siltstone bedrock to depths of between 5.9 m and 8.3 m.

Based on the surface topography, elevation and the adjacent surface water course, it is anticipated that regional groundwater generally flows to the east and north, consistent with the local topography towards Mulwarree River. It is important to note that groundwater flow direction can be influenced locally and regionally by not only surface topography, but recharge and discharge areas, horizontal and vertical inconsistencies in the types, location and orientation of subsurface soils or bedrock, and proximity to water extraction / pumping bores.

Groundwater Bore Search

A total of eight registered groundwater bores were located within a 500 m radius of the site (Cavvanba, 2021). Groundwater bore information from these bores has been provided within Table 2.1, below. From this information it is evident that the deeper aquifer (i.e. beyond 10 m) appears to be used for domestic and stock purposes. The shallow aquifer, which is the most likely aquifer to receive contamination (if any) from the site, does not appear to be used for beneficial purposes.

Table 2.1: Licensed bore summary

Bore ID	Registered use	Distance from site (m)	Depth (m)	Standing water level (m)
GW071524	Monitoring	On-site	6.5	5.3
GW064585	Stock / Domestic Purposes	~156 m (west)	15.8	-
GW105739	Stock / Domestic Purposes	~195 m (South)	78.0	2.00
GW107841	Monitoring	~235 m (Northeast)	5.0	1.4
GW107840	Monitoring	~263 m (Northeast)	7.0	5.0
GW107843	Monitoring	~265 m (Northeast)	7.5	5.0
GW107842	Monitoring	~274 m (Northeast)	7.5	5.0
GW102093	Domestic	~399 m (Northeast)	27.40	0.60

3.0 Previous environmental investigations

A review of previous environmental investigations was completed and summarised as part of the development of the SAQP, and is provided in the below sub-sections. This information was used to form the basis for the investigation design.

3.1 Preliminary site investigation (Cavvanba, 2021a)

Cavvanba was commissioned by K & H Ainsworth Engineering Pty Ltd (K&H) to undertake a PSI at the Goulburn Wheat Yard Sidings. The objective of the investigation was to establish baseline environmental conditions prior to the commencement of the lease between ARTC and K&H by assessing whether an unacceptable risk human health or the environment exists in relation to the current contamination status of the site, and providing advice on whether further investigations, management and/or remediation was required.

The investigation included a desktop review, site inspection and intrusive investigation which comprised of the advancement of twenty borehole locations using hand tools to a maximum depth of 0.7 metres.

The following key findings from the site assessment were identified:

- The primary source of contamination at the site was considered to be the long history of the use of the railway yards, which included the historical operation of bulk fuel depots, fill material containing heavy metals and the presence of asbestos containing material on-site.

- According to anecdotal evidence, the No. 1 railway siding road was historically used as a siding for the former Woodlawn Mine. The Woodlawn mine is a metal ore concentrate mine which commenced operations in 1978.

- The site was largely unsealed, with the soil profile generally comprising of a gravelly sandy clay / sandy gravel fill material to depths of at least 0.5 m, underlain by natural orange – brown sandy clay. Fill material was observed to consist of a black sandy gravel with evidence of spent coal ash, particularly within close proximity to the railway lines.

- The presence of soil contamination at the site was summarised as follows:
  - fragments (< 10 fragments) of non-friable asbestos containing material were identified in isolated locations on soil;
  - widespread lead contamination within fill material was identified with a reported maximum concentration of 13,100 mg/kg, particularly within the central portion of the former Wheat Yard Sidings and within the proximity of the railway siding infrastructure; and
  - arsenic, copper, lead and zinc exceeded the adopted ecological investigation levels at a number of locations across the site.

Through the development of the conceptual site model developed as part of the PSI, potentially complete source-pathway-receptor linkages resulting in an immediate risk to human health and/or the environment under a commercial/industrial land use scenario were identified. The presence of uncontrolled filling, a former bulk fuel depot in the northern portion of the site and the extent of asbestos containing material at the site were considered to represent key data gaps warranting further consideration.

It was recommended that interim management measures be implemented to manage any immediate unacceptable risk to human health or the environment associated with the presence of lead on-site. Further consideration was also recommended relating to the potential management of ACM in soils and the nature and extent of soil and/or groundwater contamination within the northern portion of the site due to the former bulk fuel depot.

3.2 Stockpile assessment (Cavvanba, 2021b)

Cavvanba was commissioned by ARTC to undertake a stockpile assessment of material located within the northern-most portion of the former Wheat Yard Sidings, as presented on Figure 3a. The objective of the works was to assess the contamination status of the stockpiled material and determine whether it was suitable for beneficial reuse or whether potential management options, remediation / off-site disposal was required.

The assessment comprised of the advancement of test pit locations and analytical sampling in accordance with the ASC NEPM (2013) and *Soil Sampling* EPA Victoria (2009), which is referred to within the ASC NEPM (2013).

The stockpile was generated from various works within the Goulburn railway yards, including emergency derailment and storm rehabilitations works. The stockpiled material was generated from two separate source locations, and was stockpiled adjacent to one another which was clearly differentiated through visual observations. Stockpile 1 comprised a volume of approximately 470 m^3, and Stockpile 2 a volume of approximately 940 m^3.

In Stockpile 1, lead was reported at a maximum concentration of 1,880 mg/kg, and above 1,000 mg/kg within all samples. Stockpile 1 was not considered suitable for reuse without appropriate management or further site-specific risk assessment.

In Stockpile 2, all soil analytical results were reported below the adopted human health commercial/industrial screening criteria in all samples collected and analysed. Stockpile 2 was considered suitable for beneficial reuse within the railway corridor.

3.3 Environmental site assessment (Cavvanba, 2021c)

Cavvanba was commissioned by ARTC to undertake an environmental site assessment within the Goulburn Railway Yard, which included a large portion of the Wheat Yard Sidings site. The works were required to support the Southern Highland Overtaking Opportunities (SHOO) project, which included investigating an overtaking opportunity in the form of a railway passing loop at the site, being within the footprint of the current railway refuge loop footprint.

The objective of the works was to provide an assessment of whether unacceptable risks to human health or the environment exist in relation to the current contamination status of the site and to provide a reasonable level of characterisation of contamination for an assessment of materials which are proposed to be excavated or disturbed as part of the SHOO project.

The scope of work completed included a site walkover and intrusive investigation which comprised of the advancement of 39 test pit locations and 10 borehole locations to a maximum depth of 1.5 metres, 35 of which were within the Wheat Yard Sidings site.

The following key findings from the assessment were identified:

- The site was unsealed. The soil profile generally comprised of a gravelly sandy clay / sandy gravel fill material to depths of at least 1.4 m, underlain by natural orange – brown sandy clay. Fill material was observed to consist of black sandy gravel with inclusions of coal ash, particularly within close proximity to the railway lines.

- The following commercial/industrial screening criteria exceedances were identified:
  - widespread lead contamination with a maximum detected concentration of 44,000 mg/kg, extendong laterally for approximately 1.3 km adjacent to the former Wheat Yard Sidings. The elevated lead concentrations strongly correlated to shallow fill material present to a maximum depth of 0.5 m;

- localised petroleum hydrocarbon contamination exceeding the CRC CARE HSLs for vapour intrusion was reported at a concentration of 683 mg/kg (F1 TRH C_6 – C_{10});
- localised benzo(a)pyrene (B(a)P) contamination at one location with a reported concentration of 47.2 mg/kg; and
- arsenic, copper, lead, zinc, TRH and benzo(a)pyrene exceeding the adopted ecological investigation levels at a number of locations across the site.

The conceptual site model identified an unacceptable risk to human health and the environment which required immediate management, primarily related to elevated lead concentrations in surface soils which are exposed and accessible to site workers. The presence of elevated heavy metals was considered likely to be associated with historical uncontrolled filling across the site and adjoining former Wheat Yard Sidings area. Additional investigative activities were considered to be required to delineate the extent of contamination off-site to the west within the former Goulburn Wheat Yard Sidings, and to the east within the railway corridor beyond the Main South railway line.

3.4 Previous environmental investigation summation

Widespread lead contamination has been reported throughout the former Wheat Yard Sidings, which extends laterally for approximately 1.3 kilometres (km), with a maximum detected concentration of 44,000 mg/kg. All previous investigation data completed by Cavvanba for the site has been graphically presented on Figures 3a to 3d, and 4a to 4f. Historical investigation data has been presented within Appendix A.

4.0 Data quality objectives

The seven-step DQO approach, as identified in NSW EPA (2017) is provided within the SAQP. Aspects and justification of the sampling design are described in Section 5.

Prior to commencement of the intrusive investigation program, Data Quality Objectives (DQOs) were established for the project in line with the requirements and process outlined in NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd edition)* and included within the SAQP.

These DQOs were developed to define the type and quality of data required from the site investigation program to achieve the project objectives outlined in Section 1.4. The DQOs were selected with reference to relevant guidelines published by the NSW Environmental Protection Authority (EPA), Australian and New Zealand Environment and Conservation Council (ANZECC) and National Environment Protection Council (NEPC), which define minimum data requirements and quality control procedures. These decision rules were developed to refine the objectives of the data collection investigation, to ensure the data collected was representative and provided the necessary data to enable a justifiable statement regarding the extent of contamination at the site, and an assessment on whether the contamination presents an unacceptable risk to human health and/or the environment.

5.0 Site investigation

The fieldwork program was undertaken in accordance with the SAQP, by Mr Zac Laughlan of Cavvanba in June 2022. The fieldwork program comprised of the following:

- test pitting and soil sampling on 20 to 23 June 2022;
- drilling, soil sampling and monitoring well installation on 27 to 29 June 2022; and
- groundwater monitoring event on 29 and 30 June 2022.

5.1 Rationale for sampling design

There was not a discernible pattern associated with the presence of lead and asbestos containing material in (or on) soil on-site. Therefore, a systematic approach to the DSI was required to adequately characterise the contamination status of the site.

The site is comprised of six areas of concern. Area E and Area F have been excluded from the investigation, as discussed in Section 1.2. Area A to Area D were investigated in a general grid-based pattern, with locations positioned to gain an appropriate degree of characterisation between existing infrastructure, such as railway lines, sidings, etc.

The former stockyards and access track in the southern portion of the site were considered to be lower risk areas based on historical land use activities as described within the *Preliminary Site Investigation* (Cavvanba, 2021a), therefore a lower sampling density was considered acceptable and therefore, utilised for these areas.

A total of 73 test pit and 12 borehole locations were advanced across the site. Justification for each sampling location is further detailed in Table 5.1, below.

Table 5.1: Rationale for sampling design

Location ID	Rationale
Area A – Former Fuel Depot	
TPA01 to TPA05, TPA07 and TPA08	Seven test pit locations to provide spatial coverage within Area A, and to target historical features, where practicable.
TPA06 and MW01	Two locations, a test pit and a monitoring well, targeting the location of the former aboveground storage tanks.
MW02	One monitoring well upgradient of former fuel infrastructure, and to provide spatial coverage within the north-western portion of Area A.
MW03	One monitoring well downgradient of the former aboveground storage tanks and former fuel infrastructure.
Area B – Former Wheat Yard Sidings	
TPB01 to TPB50	Fifty test pit locations to provide spatial coverage across the Area B.
BHB51 to BHB52	Two borehole locations to provide spatial coverage within the southern portion of Area B.
MW04	One monitoring well cross-gradient of the former fuel infrastructure within Area A, and within the potential future location of locomotive refueling infrastructure.
MW05 and MW06	Two monitoring wells to provide spatial coverage within Area B, and to assess whether elevated heavy metal concentrations in soil are contributing to groundwater contamination.

XRF T1 to T5	Five XRF transects as described below.
Area C – Former Stockyards	
TPC01 to TPC14	Fourteen test pit locations to provide spatial coverage across Area C.
Area D – Access Track	
BHD01 to BHD04	Four borehole locations to provide spatial coverage within Area D.

XRF Transects

A portable XRF analyser was used as a real-time field screening tool to assess and delineate contamination source areas. In accordance with the SAQP, five transects were completed at pre-determined locations throughout Area B to assist with understanding the nature of contamination (i.e. whether it is a feature of the fill material or whether it was associated with spills during shunting of trains on specific railway sidings within the yard area).

Five separate transects were completed, each of which comprised five surface sampling locations as presented on Figures 4b to 4d. Surface sample location were labelled based on the following:
- transect number, being T1 to T5; and
- sample location, being 'a to e', with 'a' being the closest sample location to the Main South Railway line (i.e to the east).

5.2 Methodology

5.2.1 Soil investigation method

Soil investigation and sampling activities were undertaken in accordance with Cavvanba's fieldwork procedures. Sampling locations are presented on Figures 3a to 3d and 4a to 4f.

All boreholes were advanced using a mechanical track mounted drilling rig (Geoprobe 7822DT) fitted with a solid flight auger to a maximum depth of 7 m. Rotary air percussion (rock drilling) was used at select locations to a maximum depth of 8 m. A hand auger was used at all locations to a depth of 1 m for safety reasons, to ensure clearance below any potential underground services.

All test pitting locations were advanced using an excavator into natural soils, where practicable at a maximum depth of 2.0 m.

Soil properties were logged by an appropriately trained and experienced environmental scientist in general accordance with *Australian Standard AS 1726-1993*. Representative soil samples were collected for laboratory analysis at selected locations, based on visual and/or olfactory evidence of the following:
- multiple layers of fill material;
- changes in the soil profile; and
- potential contamination.

Representative soil samples were collected, to the extent practicable, in accordance with techniques described in *Australian Standard AS4482-2005* (Parts 1 and 2) to maintain the representativeness and integrity of the samples.

Field screening was conducted in accordance with Cavvanba's fieldwork procedures using a calibrated photo-ionisation detector (PID) fitted with a 10.6 eV lamp. Calibration certificates are included as Appendix B. Where practicable, soil samples were generally

collected at the surface, at 0.3 m and generally at 0.5 m intervals or where significant geological changes, or evidence of potential impact was observed, until termination. Soil samples were placed in a "zip-lock" bag, sealed and screened for the presence of ionisable volatile compounds. Where the presence of volatiles or other impact was suspected, additional samples were collected.

All samples retrieved from boreholes were collected directly from the solid flight auger during drilling. Representative soil samples were collected by advancing the lead solid flight auger to approximately 0.2 metres above the selected sample depth followed by 'reaming' of soil cuttings from the borehole to remove surplus soil cuttings. The lead solid flight auger was subsequently advanced to the nominated sample depth prior to raising to the surface. The soil sample was immediately collected directly from the solid flight auger using a gloved hand, carefully selecting soil which was not in direct contact with the auger. The representative soil sample was placed directly into the sample container. The potential for loss of volatiles was minimised by sampling from larger clods of soil and minimising the duration between sample extraction and placement into the sample container. Soil samples during test pitting were collected from the centre of the excavator bucket to reduce the potential for cross contamination between sampling locations. Sample jars were sealed and immediately placed in an insulated cooler, on ice, and stored to minimise the potential loss or degradation of volatile compounds. Samples were shipped under chain of custody documentation to the NATA accredited analytical laboratory.

Test pit and borehole reinstatement

Upon completion, all test pits and boreholes (not converted into groundwater wells) were backfilled in reverse order, to the extent practicable, to prevent excessive vertical mixing of potentially contaminated subsurface material.

Decontamination procedure

All down-hole drilling and sampling equipment were decontaminated by initially removing any residual soil with a stiff brush, followed by washing the equipment with a Decon 90 / potable water solution, where applicable.

5.2.2 XRF screening investigation method

A Thermofisher Scientific Niton™ XL3t 500 XRF analyser was used for undertaking an in-situ qualitative screening assessment of surface soils across the site.

XRF readings were undertaken by a suitably experienced engineer holding a NSW EPA endorsed licence. XRF testing was completed in accordance with relevant guideline document outlined in the United States Environment Protection Agency (USEPA) *Method 6200 – Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment* (USEPA, 2007). One certified reference material (CRM) was analysed to verify that the instrument calibration was acceptable. This CRM was chosen based on the data quality objectives of the investigation. The CRM documentation has been included as Appendix B.

A system check was performed on the instrument prior to undertaking any sampling and the XRF analyser was programmed for soil. Sample locations were cleared of any debris, such as leaves, grass, and where possible larger soil particles (gravels) prior to placing the XRF analyser against the ground surface. This was undertaken to ensure that there was no obstruction for the analyser window and to minimise the effects of larger particles on the analyser beam. The instrument was placed parallel with the ground surface and the machine was run for a dwell time of 60 seconds to ensure the correct precision was achieved. Where possible, visually dry surfaces were selected for in-situ measurements.

5.2.3 Groundwater investigation method

Monitoring well installation

Six soil bores were converted to groundwater monitoring wells in accordance with Cavvanba's fieldwork procedures. Groundwater monitoring well locations are presented on Figures 3a and 3b.

The following methodology was implemented to install groundwater monitoring wells, with well construction detailed presented within the borehole logs, included as Appendix C:

- Monitoring wells were constructed of heavy duty 50mm diameter class 18uPVC with factory slotted screen (0.4mm slots) and well casing. Where practicable, the wells were screened within groundwater bearing strata in accordance with Cavvanba's fieldwork procedures and constructed to allow the potential ingress of non-aqueous phase liquids (NAPLs), if present.

- The well casing and screen were inserted into the borehole. Washed and graded filter sand was poured into the annulus between the well screen and borehole wall, to a level such that sand covered the screened level and extended above the top of the screen.

- Bentonite was then poured on top of the sand and hydrated to effectively seal off the well from surface water or perched / shallow groundwater inflows, and finished with a flush mounted / raised gatic well cover.

Monitoring well development

Following monitoring well installation, each monitoring well was developed using a bailer dedicated to each location to remove any fine materials potentially introduced during drilling, and to optimise hydraulic conductivity with the surrounding aquifer. Wells were considered developed when either a minimum of 10 well volumes had been removed or when water quality parameters had stabilised.

Monitoring well construction details are presented within the borehole logs in Appendix C.

Groundwater purging and sampling protocol

Groundwater purging and sampling was conducted on 28 and 29 June 2022, by Mr Zac Laughlan of Cavvanba. Prior to purging, wells were gauged with an interface probe to assess the depth of groundwater across the site, and presence or absence on non-aqueous phase liquids. Samples were collected directly from single use disposable tubing using low flow sampling techniques in accordance with *Cavvanba Fieldwork Procedures for Groundwater sampling*.

Field parameters, including pH, redox potential (Eh), dissolved oxygen (DO), electrical conductivity (EC) and temperature were measured using a water quality meter (HAN 98194-4M), which was calibrated prior to use.

During sample collection and equipment decontamination, disposable nitrile gloves were used to prevent dermal contact with groundwater. Samples were collected directly from dedicated tubing and placed into appropriately preserved, laboratory prepared sample containers. The containers were filled to minimise headspace, before being sealed and appropriately labelled. Labels included the following information:

- sample identification number;
- sampler;
- job number; and
- date of collection.

Samples were sealed and immediately placed on ice in a cooler to minimise potential for degradation of the sample. Samples were shipped under chain of custody documentation to the NATA accredited analytical laboratory.

Groundwater field forms, including calibration records are included as Appendix B. Groundwater monitoring well installation details are included within the borehole logs, included as Appendix C.

Survey

The location and relative level (AHD) of each newly installed groundwater monitoring well was surveyed by a registered surveyor from Southern Cross Consulting Surveyors (SCCS) on 29 June 2022. The elevation of the highest point of the top of the uPVC well casing was surveyed to facilitate appropriate groundwater elevation calculations and groundwater flow direction interpretations. Groundwater monitoring well elevations and location details are presented in Tables 12 and 13. Survey data has been provided as Appendix B.

5.3 Assessment criteria

The adopted Tier 1 assessment criteria have been sourced from guidelines made or approved under the *Contaminated Land Management Act (1997),* and were based on a review of the following reference documents:

- ASC NEPM (2013) – *Schedule B1: Investigation Levels For Soil and Groundwater* (2013).
- CRC Care Technical Report no. 10 – Health screening level for petroleum hydrocarbon in soil and groundwater – Part 2: Application Document (CRC Care, 2011).
- National Health and Medical Research Council (NHMRC) (2011) *Australian Drinking Water Guidelines* (Updated March 2021) *(*NHMRC (2011) ADWG).

In September 2011, CRC CARE published published technical report No. 10, *Health Screening Levels for petroleum hydrocarbons in soil and groundwater*. This document provides HSLs for human exposure to volatile organic compounds based upon the site-specific soil compositions of the potential vapour pathway in conjunction with classifications of receptor land-uses to more accurately assess risk to potential receptors. These HSLs have been applied to the data collected during these investigations with the following considerations:

- The general land use in the immediate vicinity of the area where contamination has been identified is commercial/industrial (on-site).
- The natural lithology encountered throughout the investigation was primarily clay. However, for conservative purposes and given the presence of fill material, a sand geology has been adopted.
- Depth to groundwater within monitoring wells sampled across the site was measured to range between be 3.7 m and 5.7 m.

5.3.1 Soil

In accordance with the ASC NEPM (2013), health investigation levels are scientifically based, generic assessment criteria designed to be used in the first stage of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario. For soil, the appropriate and adopted criteria are based on the ASC NEPM (2013), in particular the health investigation levels (HILs), environmental investigation levels (EILs), environmental

screening levels (ESLs) and health screening levels (HSLs) applicable for commercial/industrial land use scenarios.

These land use scenarios make generic estimates of potential human exposure to soil contaminants, scientifically based assumptions are made about the environment, human behaviour, the physicochemical characteristics of contaminants, and the fate and transport of contaminants in soil, within each of the land use categories. The HILs are derived by integrating these exposure estimates with toxicity reference values, that is, tolerable daily intakes, acceptable daily intakes and reference doses, to estimate the soil concentration of a substance that will prevent exceedance of the toxicity reference value under the defined scenario. The toxicity reference values are generally based on the known most sensitive significant toxicological effect. It is acknowledged that the dominant users of commercial/industrial sites are adult employees, who are largely involved in office-based activities or light indoor industrial activities, and the outdoor areas are largely covered by hardstand with some limited areas of landscaping or lawns and facilities. Opportunities for direct access to soil by employees using these facilities are likely to be minimal, but there may be potential for employees to inhale, ingest or come into dermal contact with dust particulates derived from soil on-site.

Health screening levels

HSLs for commercial/industrial space (HSL-D) and intrusive maintenance workers were adopted. This screening criterion is designed to assess the potential risk to human health via inhalation of petroleum compounds. Direct contact criteria for petroleum hydrocarbons available through CRC CARE (2011) was applied to the upper two metres of the soil profile where a pathway may be present.

Ecological screening and investigation levels

The ASC NEPM (2013) EILs and ESLs for commercial/industrial sites are appropriate for the assessment of risks to ecological receptors. The EILs are numerical limits that are designed to protect soil and terrestrial flora and fauna (including pets and wildlife) and soil microbial processes from experiencing substantial deleterious effects caused by contamination. The ASC NEPM (2013) provides EILs for aged and fresh contamination for metal constituents including nickel, chromium, copper, zinc and lead. For the purposes of EIL derivation, a constituent incorporated in soil for at least two years was considered to be aged. Given the site has been operational since approximately the early 1900's, any identified impacts are likely to be primarily related to aged contamination. Therefore, EILs for aged contamination have been adopted.

Aesthetic considerations for petroleum hydrocarbons – management limits

Petroleum hydrocarbon data collected during this investigation was also screened against petroleum hydrocarbon management limits (management limits) according to ASC NEPM (2013). The management limits are designed to protect against fire and/or explosion hazards, effects of hydrocarbons on buried infrastructure and the formation of NAPL. These criteria are not used for risk assessment purposes, however, are taken into consideration when determining if issues exist on site which may require management. Management limits have been included to avoid or minimise these potential effects.

Asbestos

An appropriate assessment of asbestos is undertaken in stages, with the first stage being an assessment of the type and condition of the asbestos or ACM. Once this has been established, a health screening level can be applied to the relevant type of asbestos, which is further discussed below.

The ASC NEPM (2013) summarises typical asbestos contamination into three groups, being:

- **ACM** is asbestos containing materials, bonded in a matrix such as cladding, fencing or vinyl tiles, that will not pass through as 7 mm x 7 mm sieve. ACM can usually be detected visually.

- **FA** is fibrous asbestos, including friable or severely weathered ACM. FA can usually be detected visually.

- **AF** is asbestos fines, including free fibres, small FA bundles, and ACMs that can pass through a 7 mm x 7mm sieve.

The assessment of non-friable ACM is the recommended method to address total asbestos contamination where friable asbestos (FA) and asbestos fines (AF) derived from bonded (non-friable) ACM are not likely to be significant. Non-friable ACM in good condition usually presents a low risk to human health. If the main form of asbestos is ACM, an assessment for free fibres is not warranted where:
- < 10% of the total ACM is significantly damaged (ACM pieces less than 7 mm x 7 mm are noted); or
- ACM cannot be crushed/crumbled with hand pressure.

The ASC NEPM (NEPC, 2013) states that for non-friable asbestos cement fragments in reasonably good condition, it can be assumed that the distribution of any co-located asbestos fines associated with ACM is likely to be less than 10% of the total material present. In these cases, it can then be assumed that asbestos fines impacts are trivial and unlikely to exceed 0.001 % w/w asbestos across the soil profile, and therefore not present an unacceptable risk of airborne asbestos fibres, and not require sampling for asbestos fines.

Health screening levels for bonded ACM are provided in ASC NEPM (NEPC, 2013), which have been summarised in Table 5.2, below.

Table 5.2: Health screening levels for asbestos contamination in soil

	Health Screening Level (weight/weight)			
Form of asbestos	Residential A	Residential B	Recreational C	Commercial/ Industrial D
Bonded ACM	0.01%	0.04%	0.02%	0.05%
FA and AF (friable asbestos)	0.001%			
All forms of asbestos	No visible asbestos for surface soil (top 10 cm should be free of all visible asbestos)			

For this site, the Commercial/Industrial D criteria of 0.05% is applicable given the current land use scenario. At these concentrations, non-friable ACM is unlikely to generate elevated levels of airborne fibres, however it is acknowledged that some non-friable fragments may remain intermixed within the soil.

5.3.2 Groundwater

The assessment criteria adopted for groundwater have been classified according to the CRC CARE criteria and compared to the appropriate HSLs. The CRC CARE (2011) P*art 2: Application document* states that the selection of the appropriate soil category is significant for volatile chemicals, as it can affect the rate of vapour transport and hence the value of the HSLs for vapour inhalation. Determining which soil classification applies at a site may be established by grain size analysis, or by visual observation. In order to screen

groundwater results against relevant criteria, Cavvanba adopted a visual observation approach to determine the appropriate soil category. In general, the dominant category of the soil overlying the source of contamination is clay. However, for conservative purposes, the adopted HSLs were based on a sand geology, and an arbitrary depth to ground of between 2 to 4 m for comparative purposes only.

The NHMRC (2011) ADWG and *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (http://www.waterquality.gov.au/anz-guidelines as accessed 10 May 2021) (ANZG 2018) provides assessment criteria for the protection of drinking water and freshwater environments, respectively. This criterion has been adopted as Tier 1 criteria with their applicability further discussed in Section 8.

In accordance with ANZG (2018), a level of protection is defined as the degree of protection afforded to a water body based on its ecosystem condition (current or desired health status of an ecosystem relative to the degree of human disturbance. The level of protection informs the acceptable water / sediment quality for a waterway. There are three recognised categories of current or desired ecosystem condition in the water quality guidelines, the level of protection corresponds to the following ecosystem condition categories:

- high conservation or ecological value systems;
- slightly to moderately disturbed systems; and
- highly disturbed systems.

The general policy nationally is that the level of protection applied to most waterways is the protection of 95% of freshwater species. A lower level of 80% protection may apply to 'highly disturbed' systems, however, the 80% protection level may only be considered as a short-term measure (e.g. a maximum of five years in many cases), with the aim of eventually restoring it to the 95% status. It is not acceptable to allow poor environmental management to continue beyond the short term. A 95% species protection levels is to be applied for slightly to moderately-disturbed ecosystems (most urban catchments), and the 99% species protection levels for pristine or vulnerable ecosystems, or where the contaminants are intractable (e.g. bioaccumulative).

5.4 Laboratory analysis

All soil and groundwater samples were collected and analysed for a range of the following potential and known COCs, in accordance with the SAQP:

- total recoverable hydrocarbons (TRH);
- benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN);
- polycyclic aromatic hydrocarbons (PAHs);
- phenols;
- heavy metals including arsenic (As), mercury (Hg), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni) and zinc (Zn);
- organochlorine and organophosphate pesticides (OCPs and OPPs);
- polychlorinated biphenyls (PCBs); and
- asbestos (presence / absence).

5.5 Data usability

A background to data usability is provided in Appendix D. All site work was completed in accordance with Cavvanba's fieldwork procedures, including a QA/QC program.

A data usability assessment has been performed for the sampling undertaken during this investigation, as summarised in Appendix D and includes the following:

- summary of field quality assurance/quality control;
- field quality control soil samples summary; and
- summary of laboratory quality assurance/quality control.

Quality control measures implemented as part of the XRF screening assessment have also been included on Appendix D. Overall, the data usability assessment shows that the data is of suitable quality to support the conclusions made in this report.

6.0 Results

6.1 Soil conditions encountered

Detailed descriptions of the site geology are presented in Table 1 and within the borehole logs, included as Appendix C. A photographic log is provided as Appendix E.

The key field observations made during the soil investigation are outlined below:

Area A – Former fuel depot

- Area A was completely unsealed with the exception of a 15 m concrete driveway at the entrance in the north-western portion.

- The soil profile comprised of a silty clayey gravel / gravelly clay fill material to a maximum depth of 1.8 m (TPA01), underlain by natural light brown / red mottled sandy clay and siltstone. This description is consistent with the geological mapping discussed in Section 2.5.2.

- The existing stockpile which was previously identified and assessed remained present in the northern portion (refer to Section 1.3.3). A smaller stockpile (approximately 1 m^3) of soil and anthropogenic material (bricks, concrete and metal) was also identified in the western portion of the area.

- Anthropogenic material, including glass, asphalt, plastic, concrete, bricks, tiles and metal were observed in fill material at a number of locations within the area. A piece of non-friable potential ACM was identified within fill material during boring at monitoring well location MW02, at a depth of 0.7 m. This material (ACM01) returned a positive result for chrysotile asbestos. No other potential ACM fragments were identified in or on soil within this area. However, given its co-located presence with bricks and glass, it is unlikely to be isolated.

- A slight petroleum hydrocarbon odour and/or staining was present in soil at the following locations:
  - TPA03 from a depth of 0.9 m – 1.0 m, with a PID reading of 0.0 ppm;
  - TPA04 from a depth of 0.7 m – 0.8 m, with a PID reading of 0.0 ppm;
  - MW01 from a depth of 5.0 m with a maximum PID field screening result of 5.6 parts per million (ppm) (isobutylene equivalent); and
  - MW03 from a depth of 4.0 m with a maximum PID reading of 157.6 ppm.

- Petroleum hydrocarbon odours or staining was not present on the surface or throughout any of the remaining test pit / borehole locations advanced within this area.

Area B – Former wheat yard sidings

- The majority of Area B was unsealed with the exception of small portions of asphalt and concrete in the central portion of the site.

- The soil profile comprised of a silty clayey gravel / gravelly clay fill material to a maximum depth of 1.2 m (TPB35), underlain by natural light brown / red mottled sandy clay. Fill material was observed to consist of black sandy gravel with evidence of coal ash, particularly within close proximity to the railway sidings and railway infrastructure.

- A stockpile (less than 10 m^3) of soil and anthropogenic material (glass, plastic, bricks, tiles, concrete and metal) was identified in the central portion of the Area B, adjacent to the former JS Hollingsworth & Sons site as presented in Photograph 19 of Appendix E.

- A smaller stockpile (approximately 1 m^3) of soil was also identified in the northern portion of Area A, adjacent to test pit location TPB12, as presented on Photograph 14 of Appendix E.

- Anthropogenic material, including ash, glass, plastic, rubber, concrete, bricks, tiles and metal was also present within fill material at a number of locations across Area B.

- A thin layer (approx. 10 mm) of green – stained soils was observed within TPB48 at a depth of 0.1 m, as presented on Photograph 16 of Appendix E. There were no unusual odours identified and resultant PID readings at this location were 0.0 ppm.

- Petroleum hydrocarbon odours or staining were not present on the surface or throughout any of the remaining test pit / borehole locations advanced within this area. PID field screening results were not reported above 0.0 ppm within any of the soil samples collected and analysed.

- Less than 10 fragments of non-friable potential ACM were observed on surface soils within Area B. All representative fragments collected and analysed returned a positive result for asbestos. ACM was identified at the following locations:
  - ACM02, within the vicinity of groundwater monitoring location MW04 in the northern portion of the area;
  - ACM03, adjacent to the small building at the entrance to the site from Sloane Street; and
  - ACM04, adjacent to the filled area within the location of TPB34 in the central portion of the site.

Area C – Former stockyards

- Area C was completely unsealed.

- The soil profile generally comprised of a sandy silty clay fill and reworked natural soils to a maximum depth of 0.6 m (TPC13), underlain by natural light brown / red mottled sandy clay. Evidence of anthropogenic material, being coal fragments were identified within fill material at one location only, TPC08.

- Unusual odours or staining were not present on the surface or throughout any of the test pit locations advanced within this area. Additionally, PID field screening results were not reported above 0.0 ppm within any of the soil samples collected and analysed.

- There was no evidence of ACM in or on soils throughout this area, nor was there any evidence of construction or demolition waste (bricks, tiles, concrete, etc).

Area D – Access track

- Area D was completely unsealed.

- The soil profile generally comprised of a sandy silty clay fill / reworked natural soil to a maximum depth of 0.3 m (BHD04), underlain by natural light brown / red mottled sandy clay.

- There were no unusual odours or staining present on the surface or throughout any of the borehole locations advanced within this area. Additionally, PID field screening results were not reported above 0.0 ppm within any of the soil samples collected and analysed.

- There was no evidence of ACM in or on soils throughout this area, nor was there any evidence of construction or demolition waste (bricks, tiles, concrete, etc).

6.2 Groundwater observations

All newly installed groundwater monitoring wells were developed following their installation on 28 and 29 June 2022. To enable sub-surface conditions to stabilise and groundwater levels to equilibrate, all newly installed and existing groundwater monitoring wells were sampled more than 24 hours following well installation and development.

Groundwater gauging results and field quality parameters are presented in Table 13 and 14, respectively.

The key observations made during the groundwater investigation are outlined below:

- Groundwater strike was identified at depths ranging from 4.0 m to 5.5 m in siltstone at groundwater monitoring wells MW01 to MW03, installed within Area A, and within silty clays at groundwater monitoring wells MW04 to MW06 across Area B.
- Groundwater standing water levels (SWLs) ranged from 3.755 metres below top of casing (m bTOC) within MW03, to 5.710 m bTOC within MW01.
- Groundwater purged during sampling at all monitoring wells was observed to vary from clear to slightly cloudy.
- Petroleum hydrocarbon odours and sheens were reported during sampling of monitoring wells MW01 and MW03, within and down-gradient of the former aboveground storage tanks identified within Area A.
- Groundwater electrical conductivity ranged from 500 µScm-¹ at MW05 to 3,398 µScm-¹ at MW06. The corresponding salinity was calculated to range between 0.320 ‰ at MW05 and 2.175 ‰ at MW06 indicating a freshwater to estuarine ecosystem (<0.5 ‰ – freshwater; ≥0.5 to <25‰ – estuarine) (Warne et al., 2018).
- Groundwater pH ranged from 7.11 at MW01 to 8.22 at MW05, indicating neutral to slightly alkaline conditions.
- Indications of LNAPL was not observed within any monitoring wells during the gauging and sampling event undertaken.

7.0 Analytical results

The following sub-sections provide a discussion of the results of the soil and groundwater investigation.

7.1 Soil

Soil analytical results were screened against the relevant screening criteria as described in Section 5.3. The analytical results have been summarised by area in Tables 7.1 to 7.4, below, and in their entirety in Tables 2 to 8. Laboratory certificates are presented in Appendix F.

7.1.1 Area A – Former Fuel Depot

Table 7.1: Soil analytical summary – Area A – Former Fuel Depot

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Metals						
Arsenic	3,000	160	19	16	154	Yes
Cadmium	900	-		8	2	Yes
Chromium	3,600	670		19	64	Yes
Copper	240,000	300		19	232	Yes
Lead	**1,500**	1,800		19	**4,670**	**No**
Nickel	6,000	290		19	52	Yes
Zinc	400,000	700		19	911	No
Mercury	730/180	-		11	2	Yes
TRH and BTEXN						
Benzene	3[1]	75	13	0	<0.2	Yes
Toluene	99,000	135		0	<0.5	Yes
Ethylbenzene	27,000	165		0	<0.5	Yes
Xylenes	81,000	180		0	<0.5	Yes
Naphthalene	29,000	370		0	<0.5	Yes
F1 TRH C_6-C_{10}	260[1]	215		1	12	Yes
F2 TRH >C_{10}-C_{16}	1,000[2]	170		1	300	No
F3 TRH >C_{16} – C_{34}	27,000[3]	1,700		2	320	Yes
F4 TRH >C_{34} – C_{40}	10,000[2]	3,300		1	280	Yes
PAHs and Phenols						
B(a)P TEQ	40	-	13	0	<0.5	Yes
B(a)P	-	1.4		0	<0.5	Yes
Total (PAHs)	4,000	-		0	<0.5	Yes
Phenol	240,000	-	7	0	<0.5	Yes
OCPs / OPPs and PCBs						

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Sum of DDD + DDE + DDT	3,600	360	7	0	<0.05	Yes
PCBs	7	-		0	<0.1	Yes
Asbestos						
Asbestos	**Detect**	-	1	1	-	**No**

Table notes:
- = not detected above the LOR / no applicable assessment criteria.
Refer to Tables 2 – 8 for a complete list of screening criteria.
1 – Health screening levels for commercial land use (sand soils), 0m to <1m. Exceedance is shown in **bold.**
2 – Health investigation levels for commercial landuse. Exceedance is shown in **bold**.
3 – Management Limits fine soil – exceedance is shown in *italic*.
4– Ecological screening and investigation levels for commercial/industrial landuse. Exceedance is shown as underline.

Exceedances of the adopted soil assessment criteria within Area A were limited to the following:
- lead, in excess of the health investigation level and ecological investigation level in surface soils at one location TPA06, with a reported concentration of 4,670 mg/kg;
- zinc in excess of the ecological investigation levels at two locations, with a reported maximum concentration of 911 mg/kg;
- TRH F2 (>C_{10} – C_{16}) in excess of the ecological investigation level at one location, MW03 at a depth of 5.0 m – 5.1 m with a reported concentration of 300 mg/kg; and
- asbestos was confirmed via laboratory analysis within non-friable cement sheeting collected from monitoring well location MW02, at a depth of approximately 0.7 m.

7.1.2 Area B – Former Wheat Yard Sidings

Table 7.2: Soil analytical summary – Area B – Former Wheat Yard Sidings

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Metals						
Arsenic	3,000	160	106	94	839	No
Cadmium	900	-		78	321	Yes
Chromium	3,600	670		105	100	Yes
Copper	240,000	300		106	3,840	No
Lead	**1,500**	1,800	110	110	**193,000**	**No**
Nickel	6,000	290	106	106	1,000	No
Zinc	400,000	700		106	7,560	No
Mercury	730/180	-		55	29	Yes
TRH and BTEXN						
Benzene	3[1]	75	28	0	<0.2	Yes
Toluene	99,000	135		0	<0.5	Yes
Ethylbenzene	27,000	165		0	<0.5	Yes

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Xylenes	81,000	180		0	<0.5	Yes
Naphthalene	29,000	370		0	<0.5	Yes
F1 TRH C_6-C_{10}	260[1]	215		0	<50	Yes
F2 TRH >C_{10}-C_{16}	1,000[2]	170		0	<100	Yes
F3 TRH >C_{16} – C_{34}	27,000[3]	1,700		14	1,150	Yes
F4 TRH >C_{34} – C_{40}	10,000[2]	3,300		9	420	Yes
PAHs and Phenols						
B(a)P TEQ	40	-	28	3	2.4	Yes
B(a)P	-	1.4		3	1.8	No
Total (PAHs)	4,000	-		11	20.8	Yes
Phenol	240,000	-	14	0	<0.5	Yes
OCPs / OPPs and PCBs						
Sum of DDD + DDE + DDT	3,600	360	14	2	0.72	Yes
PCBs	7	-		1	3	Yes
Asbestos						
Asbestos	**Detect**	-	3	3	-	**No**

Table notes:
- = not detected above the LOR / no applicable assessment criteria.
Refer to Tables 2 – 8 for a complete list of screening criteria.
1 – Health screening levels for commercial land use (sand soils), 0m to <1m. Exceedance is shown in **bold.**
2 – Health investigation levels for commercial landuse. Exceedance is shown in **bold**.
3 – Management Limits fine soil – exceedance is shown in *italic*.
4– Ecological screening and investigation levels for commercial/industrial landuse. Exceedance is shown as underline.

Exceedances of the adopted soil assessment criteria within Area B included the following:
- widespread lead exceedances of the health investigation level within surface soils and fill material;
- Of note, reported concentrations of 36,900 at TPB06, 30,000 mg/kg at TPB15, 16,400 mg/kg at TPB18, 10,600 mg/kg at TPB19, and 9,300 at TPB25;
- a maximum lead concentration of 193,000 mg/kg was reported at TPB48;
- arsenic, copper, lead, nickel, zinc and benzo(a)pyrene ecological investigation level exceedances; and
- asbestos was confirmed via laboratory analysis within non-friable cement sheeting collected from the surface at three locations.

7.1.3 Area C – Former Stockyards

Table 7.3: Soil analytical summary – Area C – Former Stockyards

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Metals						
Arsenic	3,000	160	25	24	56	Yes
Cadmium	900	-		0	<1	Yes
Chromium	3,600	670		25	124	Yes
Copper	240,000	300		25	212	Yes
Lead	1,500	1,800		25	908	Yes
Nickel	6,000	290		25	32	Yes
Zinc	400,000	700		25	404	Yes
Mercury	730/180	-		1	0.2	Yes
TRH and BTEXN						
Benzene	3[1]	75	10	0	<0.2	Yes
Toluene	99,000	135		0	<0.5	Yes
Ethylbenzene	27,000	165		0	<0.5	Yes
Xylenes	81,000	180		0	<0.5	Yes
Naphthalene	29,000	370		0	<0.5	Yes
F1 TRH C_6-C_{10}	260[1]	215		0	<10	Yes
F2 TRH >C_{10}-C_{16}	1,000[2]	170		0	<50	Yes
F3 TRH >C_{16} – C_{34}	27,000[3]	1,700		0	<100	Yes
F4 TRH >C_{34} – C_{40}	10,000[2]	3,300		0	<100	Yes
PAHs and Phenols						
B(a)P TEQ	40	-	10	0	<0.5	Yes
B(a)P	-	1.4		0	<0.5	Yes
Total (PAHs)	4,000	-		1	2.6	Yes
Phenol	240,000	-	6	0	<0.5	Yes
OCPs / OPPs and PCBs						
Sum of DDD + DDE + DDT	3,600	360	6	4	1.79	Yes
PCBs	7	-		0	<0.1	Yes

Table notes:
- = not detected above the LOR / no applicable assessment criteria.
Refer to Tables 2 – 8 for a complete list of screening criteria.
1 – Health screening levels for commercial land use (sand soils), 0m to <1m. Exceedance is shown in **bold.**
2 – Health investigation levels for commercial landuse. Exceedance is shown in **bold**.
3 – Management Limits fine soil – exceedance is shown in *italic*.
4– Ecological screening and investigation levels for commercial/industrial landuse. Exceedance is shown as underline.

Concentrations of potential contaminants of concern in soil within Area C were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

7.1.4 Area D – Access Track

Table 7.4: Soil analytical summary – Area D – Access Track

Analyte	Health criteria	Ecological criteria	Analytical data			
	HIL / HSL (mg/kg)	EILs/ESLs (mg/kg)	No. samples analysed	Number of detects	Max' (mg/kg)	Meets screening criteria?
Metals						
Arsenic	3,000	160	8	7	19	Yes
Cadmium	900	-		0	<1	Yes
Chromium	3,600	670		8	92	Yes
Copper	240,000	300		8	32	Yes
Lead	1,500	1,800		8	42	Yes
Nickel	6,000	290		8	17	Yes
Zinc	400,000	700		8	161	Yes
Mercury	730/180	-		0	<0.1	Yes
TRH and BTEXN						
Benzene	3[1]	75	8	0	<0.2	Yes
Toluene	99,000	135		0	<0.5	Yes
Ethylbenzene	27,000	165		0	<0.5	Yes
Xylenes	81,000	180		0	<0.5	Yes
Naphthalene	29,000	370		0	<0.5	Yes
F1 TRH C_6-C_{10}	260[1]	215		0	<10	Yes
F2 TRH >C_{10}-C_{16}	1,000[2]	<u>170</u>		0	<50	Yes
F3 TRH >C_{16} – C_{34}	27,000[3]	1,700		0	<100	Yes
F4 TRH >C_{34} – C_{40}	10,000[2]	3,300		0	<100	Yes
PAHs and Phenols						
B(a)P TEQ	40	-	8	0	<0.5	Yes
B(a)P	-	-		0	<0.5	Yes
Total (PAHs)	4,000	-		0	<0.5	Yes
Phenol	240,000	-	4	0	<0.5	Yes
OCPs / OPPs and PCBs						
Sum of DDD + DDE + DDT	3,600	360	2	0	<0.05	Yes
PCBs	7	-		0	<0.1	Yes

Table notes:
- = not detected above the LOR / no applicable assessment criteria.
Refer to Tables 2 – 8 for a complete list of screening criteria.
1 – Health screening levels for commercial land use (sand soils), 0m to <1m. Exceedance is shown in **bold.**
2 – Health investigation levels for commercial landuse. Exceedance is shown in **bold**.
3 – Management Limits fine soil – exceedance is shown in *italic*.
4– Ecological screening and investigation levels for commercial/industrial landuse. Exceedance is shown as <u>underline.</u>

Concentrations of potential contaminants of concern in soil within Area D were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

7.2 Groundwater

Groundwater analytical results were screened against the relevant screening criteria as described in Section 5.3. The analytical results have been summarised by contaminant in Table 7.5, below, and in their entirety in Tables 15 to 17. Laboratory certificates are presented in Appendix F.

Table 7.5: Groundwater analytical summary

Analyte	Health criteria	Ecological criteria	Analytical data			
	ADWG / HSL D (µg/L)	ANZECC (µg/L)	Samples analysed	Number of detects	Max' (µg/L)	Meets criteria?
Metals						
Arsenic	10	13	6	2	2	Yes
Cadmium	2	0.2		0	<0.1	Yes
Chromium	50	1		2	3	No
Copper	2,000	1.4		1	1	Yes
Lead	10	3.4		1	5	No
Nickel	20	11		3	8	Yes
Zinc	-	8		2	18	No
Mercury	1	0.06		0	<0.1	Yes
TRH and BTEXN						
Benzene	**1** / 5,000	950	6	2	**138**	**No**
Toluene	800 / NL	180		2	6	Yes
Ethylbenzene	300 / NL	80		2	6	Yes
Xylenes	600 / NL	75		0	<2	Yes
Naphthalene	-	16		2	82	No
F1 TRH C_6-C_{10}	6,000	-		2	1,190	Yes
F2 TRH >C_{10}-C_{16}	NL	-		2	800	Yes
F3 TRH >C_{16} – C_{34}	NL	-		1	300	Yes
F4 TRH >C_{34} – C_{40}	NL	-		2	1,800	Yes
PAHs						
B(a)P	0.1[1]	-	6	0	<0.5	Yes
Phenanthrene	-	0.6		2	2	No
Total (PAHs)	-	-		2	32.7	Yes

Table notes:
- = no applicable assessment criteria.
Refer to Tables 15 – 17 for a complete list of screening criteria.
1. Drinking water criteria: Australian Government Department of Health, 2019.
2. Ecological criteria: ANZG – 95% protection of species – freshwater (µg/L)
Bold/*italic*/underline = criterion exceedance.

Exceedances of the adopted groundwater assessment criteria were limited to the following:
- benzene in excess of the Australian drinking water guidelines in monitoring wells MW01 and MW03, within Area A – Former Fuel Depot, with a maximum reported concentration of 138 µg/L;
- naphthalene and phenanthrene in excess of the 95% freshwater species protection level in monitoring well MW03, and phenanthrene in MW01; and
- chromium, lead and/or zinc in excess of the 95% freshwater species protection level in monitoring wells MW01, MW05 and/or MW06.

8.0 Discussion

8.1 Soil

This DSI incorporated a review of previous investigations and site history information, supplemented by an intrusive soil investigation and analytical sampling at 85 locations across the site to a maximum depth of 8.0 m. Exceedances of the adopted health-based assessment criteria were limited to lead only within Area A and Area B. Asbestos was also confirmed via laboratory analysis in and on soils within isolated areas of Area A and Area B only. The significance of these exceedances are discussed below, and where individual constituents are not discussed, there were no exceedances reported.

8.1.1 Area A – Former fuel depot

Lead

Lead was reported to exceed the adopted human health assessment criteria within surface soils at one location TPA06_0.0-0.1, with a reported concentration of 4,670 mg/kg. The source of lead contamination within this area appears to differ from that observed within Area B, with the absence of elevated co-located copper and zinc concentrations.

TPA06 is located within the vicinity of the former aboveground fuel storage tanks in the south-western portion of Area A. The source of lead contamination potentially being associated with lead-based paints historically applied to this former infrastructure. This exceedance is limited in extent, having been vertically delineated by sample TPA06_0.3-0.4 collected from the underlying silty gravel fill material, and laterally within surface soils to the north, east and south.

Asbestos in soil

Isolated fragments of non-friable ACM were observed in fill material at a depth of 0.7 m during boring at monitoring well location MW02, in the north-western portion of the area. The ACM was co-located with other building and demolition waste material, comprising bricks and glass, indicating that it was unlikely to be isolated. However, there was no indication of a potential waste burial within the area. This material (ACM01) returned a positive result for chrysotile asbestos.

Ecological

Lead, zinc and F3 TRH >C_{16} – C_{34} fraction were reported to exceed the adopted ecological investigation levels at isolated locations advanced within this area. In all cases, the exceedances were associated with fill material and/or the presence of hydrocarbon odours and staining. The exceedances at these locations are not considered to represent an issue of concern given the highly disturbed nature of the site, presence of fill material / depth at which the TRH exceedance was identified and lack of vegetation and habitat for potential ecological receptors to exist.

8.1.2 Area B – Former wheat yard sidings

Lead

Lead was reported to exceed the adopted human health commercial/industrial criteria of 1,500 mg/kg at 23 locations advanced across Area B, with a maximum reported concentration of 193,000 mg/kg at test pit location TPB48 in the southern portion of the site. Lead concentrations in excess of 10,000 mg/kg were reported on surface soils and within shallow fill material at five locations, ranging from TPB06 in the northern portion of Area B to TPB48 in the southern portion.

In all cases where lead exceedances were reported, elevated concentrations of arsenic, copper, and/or zinc were also identified. This is an indication that the source of contamination may be associated with metal ore concentrate historically deposited within Area B, supporting anecdotal evidence provided as part of the PSI, where the No. 1 railway siding road was historically used as a siding for the former Woodlawn Mine. The Woodlawn Mine was a metal ore concentrate mine which commenced operations in 1978.

Consistent with the findings of the ESA (Cavvanba, 2021), the lead exceedances directly corresponded to shallow fill material present at the site to a maximum depth of approximately 0.5 m, and were delineated vertically by either samples collected from the underlying fill material or natural sandy clay material observed. In most cases, lead concentrations in excess of the adopted assessment criteria have been delineated to within the central and eastern portion of Area B, with the highest concentrations being reported within areas of railway sidings / historical infrastructure. This is further supported by the XRF transect data, where higher lead concentrations were reported within 'a – c' locations, being closer to railway infrastructure in comparison to 'd – e' locations, in the western portion of Area B. The lateral extent still remains uncertain to the east within the operational railway corridor, however given the knowledge of the source, is considered unlikely to extend beyond the Main South railway line.

Lead – Leachate

The leaching of contaminants from soil may be determined by using the Australian Standard Leaching Procedure (ASLP). This test measures how much of a chemical or element can move from soil into water using conditions similar to natural rain events by employing a neutral pH reagent in the leaching procedure. However, the dissolved concentration in the resultant leachate as measured in an ASLP test should consider the dilution that will occur as the leachate moves from the soil into the underlying groundwater. This will depend on the relative rates of rainfall and groundwater movement, absorption in the soil and depth of groundwater into which the leachate mixes.

An ASLP test was conducted on select samples for lead only. The resultant leachable lead concentrations were reported to range from 0.159 mg/L in sample TPA06_0.0-0.1 (Area A) to 21.8 mg/L in sample TPB48_0.1-0.11 (Area B), indicating that lead is highly leachable in higher soil concentration samples. The relationship between leachability of soils and groundwater risk can be directly evaluated using groundwater data and is further discussed in Section 8.2.3.

Asbestos

Non-friable potential ACM fragments (< 10 fragments in total) were observed on soils at three locations within Area B, being

- ACM02, being confirmed as chrysotile asbestos within the vicinity of groundwater monitoring location MW04 in the northern portion of the area;
- ACM03, being confirmed as chrysotile asbestos adjacent to the small building at the entrance to the site from Sloane Street; and
- ACM04, being confirmed as chrysotile and amosite asbestos adjacent to the filled area within the location of TPB34 in the central portion of the site.

All fragments identified appeared to be isolated in extent. There was no indication that ACM fragments were widespread across Area B.

Ecological

Arsenic, copper, lead, nickel, zinc and B(a)P were reported to exceed the adopted ecological investigation levels at a number of locations advanced across the site. In most cases, the reported EIL exceedances for these contaminants correlated to locations where areas were lead was reported to exceed the health investigation levels. Cavvanba notes

that the site is a linear railway corridor that is a highly disturbed commercial/industrial premises and is purposely phytotoxic to preserve the integrity of the railway line. Therefore, the presence of these constituents in soil are unlikely to represent an unacceptable risk to ecological receptors on-site.

8.1.3 Area C – Former stockyards and Area D – Access track

Concentrations of potential contaminants of concern in soil across Area C and Area D were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

8.2 Groundwater monitoring

8.2.1 Monitoring well network appraisal

A total of six groundwater monitoring wells were installed by Cavvanba to target potential sources of groundwater contamination and assess the potential for groundwater contamination on-site. These monitoring well locations were positioned to target historical infrastructure associated with the former fuel depot and within areas of known high lead concentrations in soil to assess whether elevated leachable lead concentrations are contributing to groundwater contamination beneath the site. The well network is considered to be adequate to intercept contamination if present, associated with the potential sources of contamination identified.

8.2.2 Groundwater elevation

Groundwater was encountered at depths ranging from 4.0 m to 5.5 m in siltstone within Area A, and within silty clays across Area B during drilling. Standing water levels were observed to range from 3.755 m to 5.710 m.

The measured SWLs, and calculated groundwater elevations, indicated the aquifer encountered at the site was unconfined and groundwater flow is predominantly in a north-easterly direction towards Mulwarree River. Hydrogeological information has been graphically presented on Figure 4.

8.2.3 Contaminant discussion

Dissolved heavy metals

Lead was reported below the laboratory limit of reporting within all groundwater monitoring wells sampled within Area B. Whilst elevated leachable concentrations of lead was reported in soil, there is no indication that groundwater has been impacted by surface and fill contaminated soils.

A limited number of exceedances of the adopted ANZG (2018) protection of freshwater guideline for chromium, zinc and lead were detected in groundwater within monitoring wells on-site. Given the low-level concentrations, being with a similar order of magnitude as the adopted assessment criteria, industrial nature of the site and immediate surrounding area, and absence of sensitive receptors within the immediate vicinity, the presence of these metals in groundwater are unlikely to represent an unacceptable risk to ecological receptors on or within the vicinity of the site.

Petroleum hydrocarbons

All groundwater samples collected on-site were reported below the adopted CRC CARE HSLs for vapour intrusion.

Dissolved phase petroleum hydrocarbon contamination was identified at two groundwater monitoring well locations within Area A, with a maximum reported F1 TRH >C_6 – C_{10} concentration of 1,190 µg/L (TRH >C_{10} – C_{40}) at monitoring well MW01, located within the area of the former ASTs. Elevated TRH concentrations were also reported at monitoring well MW03, located down-hydraulic gradient of the former AST area. These elevated TRH concentrations also correlated to exceedances of the NHMRC (2011) ADWG for benzene with reported concentrations of 3 µg/L at MW01 and 138 µg/L at MW03.

Naphthalene and phenanthrene were also identified to exceed the adopted 95% freshwater species protection level at MW01 and MW03.

The low-concentrations of TRH and BTEXN present in groundwater within Area A have not been delineated to the north and are likely a legacy issue associated with the historical operation of the former fuel depot within the north-western portion of the site. The concentrations identified are unlikely to represent gross petroleum hydrocarbon contamination, and are most likely to represent an aged, degraded and/or weathered spill event, rather than a fresh and ongoing source. The presence of petroleum hydrocarbons in groundwater within Area A are unlikely to present a human health risk under the current land use scenario on-site, or present a risk to human health or the environment off-site, however management of the resultant aesthetic issues such as odours and staining should be considered.

9.0 Conceptual site model

A conceptual site model is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. An understanding of potential exposure scenarios is necessary to evaluate the suitability of a site for a particular land use. Potential exposure pathways are evaluated for completeness based on the existence of:

- a source of contamination/impact;
- a mechanism for release of contaminants from identified sources;
- a contaminant retention or transport medium (e.g., soil, air, groundwater, etc.);
- potential receptors of contamination; and
- a mechanism for chemical intake by the receptors at the point of exposure (ingestion, dermal contact or inhalation or a combination of).

For exposure to be considered possible, a mechanism, i.e. pathway must exist by which contamination from a given source can reach a given receptor. Such complete source-pathway-receptor (SPR) exposure mechanisms are commonly termed SPR linkages. Pollutant sources, exposure mechanisms and receptors at the site are discussed in the following sections, with a thorough understanding of the relationships between each considered fundamental in assessing potential risk.

9.1 Sources of contamination

The potential and actual sources of soil and groundwater contamination for the site, and those which are considered to represent a potential environmental liability on-site are summarised below:

Actual sources of contamination

- **Fill material (uncontrolled) – Area A and Area B:** Lead exceedances were identified to be widespread across the central and eastern portion of Area B, with the highest concentrations being reported in and around the existing railway siding infrastructure. The source of contamination is likely associated with metal ore concentrate historically deposited within Area B. The lead exceedances directly corresponded to shallow fill material present to a maximum depth of approximately 0.5 m, and were delineated vertically by either samples collected from the underlying fill material or natural sandy clay material observed. The presence of lead is considered to be a primary source of contamination for the site.

  The presence of isolated fragments of ACM in soils in Area A and on soils within Area B are also considered to be a source of contamination, and can be intermixed within fill material / spread across the site if not appropriately managed.

- **Historical bulk fuel storage and transfer operations – Area A**: Dissolved phase hydrocarbons impacts in groundwater were identified within monitoring wells located within close proximity and downgradient of the former AST area.

  The low-concentrations of TRH and BTEXN present in groundwater are likely a legacy issue associated with the historical operation of the fuel depot, and are unlikely to represent gross petroleum hydrocarbon contamination issue that would represent a potential risk to human health or the environment on and off-site.

Potential sources of contamination

- **Historical operational of the Goulburn railway yard areas:** The site has a long history of industrial activity with railway operations commencing in the area in the early 1900s. Railway yards are considered to have the potential for soil and/or groundwater contamination as a result of the following activities:

- improper disposal and use of waste materials such as spent coal, ash and asbestos containing material as filling material;
- locomotive maintenance activities including the use and storage of chemicals, fuels and greases and oils;
- the potential storage and application of pesticides and herbicides;
- localised oil, fuel and grease deposits where locomotives may have stood for periods of time;
- potential spills / release of products / cargo within the refuge loop; and petroleum product and oil storage.

9.2 Exposure and migration pathways

In relation to the identified sources, the pathways for potential contaminant migration and potential exposure to receptors are controlled by the geological environment, the built environment overlying the site and in adjacent areas, as well as physical separation distances between sources and potential receptors.

The considered pathways for potential soil and groundwater impact at this site, and whether they are considered plausible include the following:

Soil
- exposure via dermal contact (incidental) and ingestion (incidental) of contaminated soils – Plausible;
- exposure via inhalation (dust) of contaminated soils – Plausible;
- generation and pooling of ground gases that may present an explosive hazard - Unlikely;
- migration or transport of soil from the site via runoff, relocation or dust migration – Plausible; and
- exposure to contaminated soils via plant root uptake – Unlikely.

Groundwater
- contamination of underlying groundwater from infiltration and leaching of contaminated soils – Unlikely;
- migration and exposure of vapours from contaminated groundwater and/or LNAPL – Unlikely;
- groundwater migration off-site or to an underlying aquifer – Unlikely;
- direct contact or ingestion of impacted groundwater – Unlikely; and
- discharge of impacted groundwater to surface water bodies – Unlikely.

Surface water
- mixing, erosion and suspension of soil and contaminants in runoff – Plausible; and
- off-site migration of contaminants via surface water such as stormwater – Plausible.

The viability of these pathways is further assessed in Section 9.4.

9.3 Receptors

The following potential receptors have been identified at the site:

Human receptors

- current and future on-site occupants in a commercial/industrial scenario on-site;
- current and future on-site excavation / intrusive maintenance workers; and
- occupants in a residential land use scenario off-site.

Ecological receptors

- on-site terrestrial ecological receptors including soil processes, plant species and organisms that may inhabit or contact soils.

9.4 Conceptual site model summary

A source-pathway-receptor (SPR) linkage is considered to be present when a pathway links a source with a receptor. These linkages explain when there may be risks to the receptor, either now or in future. A summary of the conceptual site model is provided in Table 9.1, below.

Table 9.1: Summary of potential Source-Pathway-Receptor linkages

Source	Pathway	Receptor(s)
Lead and B(a)P (Cavvanba, 2021) in soil – Fill material	Dermal contact, ingestion and/or dust inhalation	– on-site occupants in a commercial/industrial land use scenario. – on-site intrusive maintenance workers.
	Surface water runoff (including movement of soil / sediment via runoff)	– Off - site occupants of neighbouring properties. – Recreational users, and flora and fauna within the Mulwaree River.
	Movement of soils via relocation, disposal or dust migration	– Off-site occupants of neighbouring properties.
TRH in soil (TRH C_6 – C_{10}) (Cavvanba, 2021)	Indoor inhalation of vapour from contaminated soils	– future occupants in a commercial/industrial land use scenario.
Asbestos in or on soil	Inhalation of fibres	– on-site occupants in a commercial/industrial land use scenario. – on-site intrusive maintenance workers.

Contaminated soils – human health

The uncovered contaminated surface soil provides a direct exposure pathway to site occupants and intrusive maintenance workers via dermal contact, dust inhalation or ingestion of contaminated soil. Elevated concentrations of lead are widespread across the central and eastern portion of Area B, and at one location within Area A which represents an unacceptable risk to human health. The exceedance of B(a)P at one location in Area B is unlikely to be considered to be a human health risk.

Off-site movements of soils through dust and other erosional processes is plausible under the current land use scenario. The scale and magnitude of dust generation, mobilisation and deposition is unknown.

Non-friable ACM in and on soil provides a direct exposure pathway to on-site occupants and intrusive maintenance workers via airborne fibre inhalation if not appropriately

managed. However, the nature and extent of the ACM identified is limited to isolated areas within Area A and Area B and is unlikely to represent a complete exposure pathway.

Contaminated soils – vapour intrusion (Cavvanba, 2021)

Exceedances of the adopted CRC CARE HSLs for vapour intrusion were limited to one sample from borehole location BH41 at a depth of 0.3 m – 0.4 m reported as part of the ESA (Cavvanba, 2021). Whilst complete vertical and lateral delineation could not be achieved due to the presence of the Main South railway line, the presence of hydrocarbon contamination within this area is likely localised, and a legacy issue associated with the former Caltex fuel depot which was remediated in 2013. Given the location of the exceedance, and absence of occupied buildings or structures, it is considered unlikely that a complete vapour intrusion exposure pathway exists to occupants in a commercial/industrial land use scenario on or off-site.

10.0 Conclusions and recommendations

Based on the scope of works completed, the objectives are considered to have been met and an increased understanding of contamination at the site has been established, sufficient to assist in addressing and closing data gaps previously identified and provide an updated assessment on potential risks to human health and/or the environment on and off-site.

In the context of the conceptual site model developed for the site, the following conclusions have been drawn:

- The site is an operational railway yard with a long history of industrial activity commencing in the early 1900s. The site was mainly used for the storage and transfer of wheat, wool and/or livestock. Area A was historically used for the bulk storage and transfer of fuels and oils. Anecdotal evidence suggests that the No. 1 railway siding road was also historically used as a siding for the former Woodlawn metal ore concentrate mine.

- The site was largely unsealed. The soil profile comprised of a silty clayey gravel / gravelly clay fill material to a maximum depth of 1.8 m within Area A, and 1.2 m within Area B, underlain by natural light brown / red mottled sandy clay and siltstone. Fill material within Area B was observed to consist of black sandy gravel with evidence of coal ash, particularly within close proximity to the railway sidings and railway infrastructure.

- Fragments of non-friable asbestos containing material were identified in soil at one location within Area A, and on soil at three locations within Area B.

Area A – Former fuel depot

- Lead was reported to exceed the health investigation level of 1,500 mg/kg within surface soils at one location, with a reported concentration of 4,670 mg/kg. The source of lead contamination within this area is likely associated with lead-based paints, and differed to that observed within Area B, with the absence of elevated co-located copper and zinc concentrations.

- All remaining potential contaminants of concern in soil in Area A were reported below the adopted health-based assessment criteria.

- The presence of lead at one location within Area A is considered to represent a hotspot. Pending the remedial objectives for the broader site, this area may require additional investigation to further define the nature and lateral extent of contamination.

Area B – Former wheat yard sidings

- Lead was reported to exceed the health investigation level at 23 locations advanced within Area B, with a maximum reported concentration of 193,000 mg/kg.

- Lead exceedances were identified to be widespread across the central and eastern portion of Area B, with the highest concentrations being reported within and around the existing railway siding infrastructure. The lead exceedances directly corresponded to surface and shallow fill material present to a maximum depth of approximately 0.5 m, and were delineated vertically by either samples collected from the underlying fill material or natural sandy clay material observed. The lateral extent still remains uncertain to the east within the operational railway corridor, however given the knowledge of the source, is considered unlikely to extend beyond the Main South railway line.

- Based on the reported groundwater analytical results, there was no indication that groundwater beneath the site has been impacted by surface and shallow fill lead contaminated soils.

Area C – Former stockyards

- Concentrations of potential contaminants of concern in soil within Area C were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

- Area C is considered suitable for ongoing commercial/industrial use in line with the current zoning.

Area D – Access track

- Concentrations of potential contaminants of concern in soil within Area D were reported below the adopted human health and ecological screening criteria in all samples collected and analysed.

- Area D is considered suitable for ongoing commercial/industrial use in line with the current zoning.

Site suitability

The conceptual site model refined as part of this investigation has identified an unacceptable risk to human health and the environment which requires remediation. This is due to elevated lead concentrations in surface soils and shallow fill material within Area B which are exposed and accessible to site workers. In all cases where lead exceedances were reported, co-located elevated concentrations of arsenic, copper and/or zinc were also identified, indicating that the source of contamination may be associated with metal ore concentrate historically deposited within this area.

The information collected as part of this investigation is considered to be sufficient to adequately characterise the nature and extent of contamination within the site boundary. It is recommended that a remedial action plan / options assessment be prepared for the site, in conjunction with the application of the interim environmental management plan to ensure the protection of human health and the environment. This must consider on-site dust management control and monitoring.

It is recommended that this report be provided to the NSW EPA to assist in their decision making on whether the site requires regulation under the *Contaminated Land Management Act 1997*.

11.0 References

Previous Environmental Investigations

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Figures

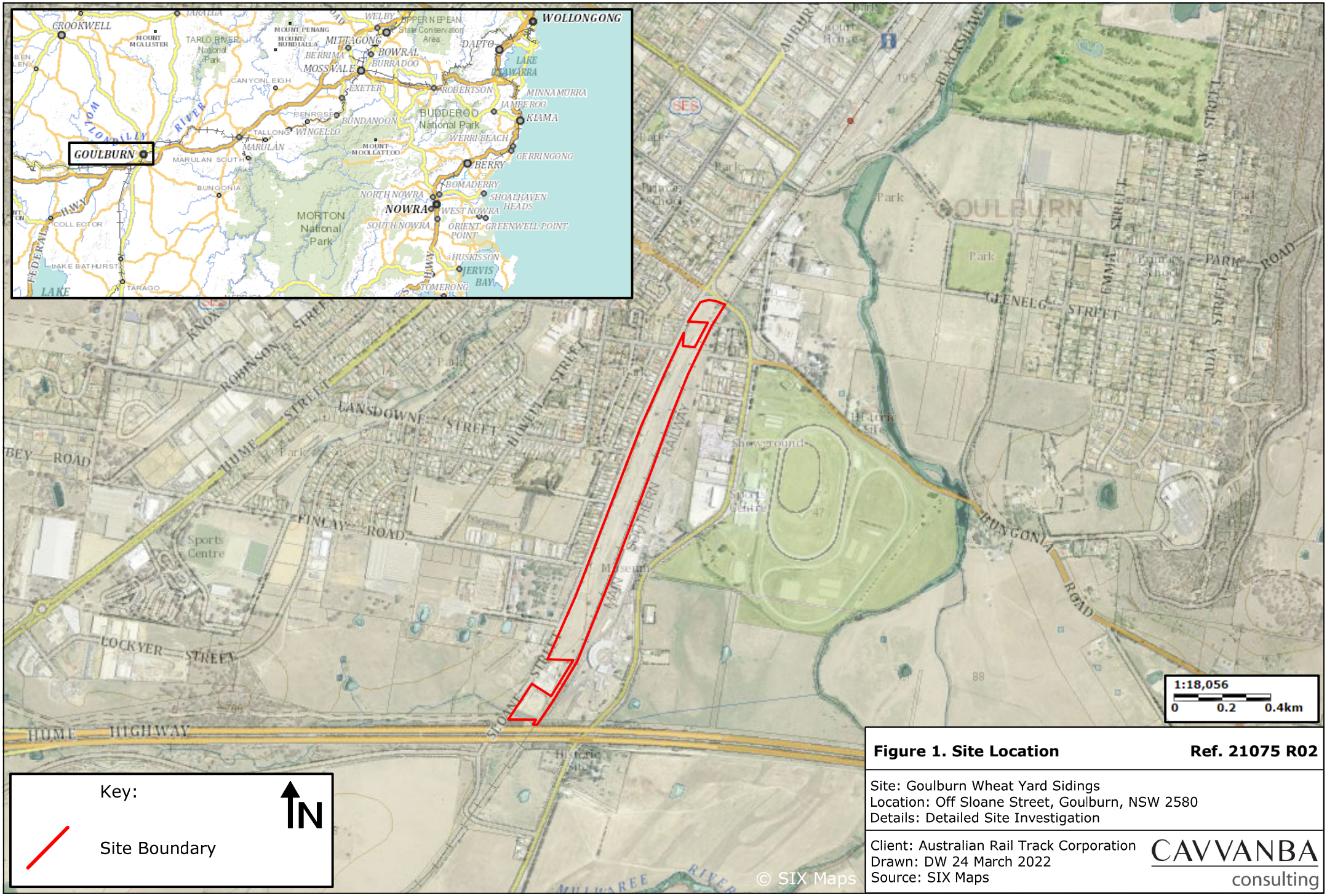

Figure 1. Site Location **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn, NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: DW 24 March 2022
Source: SIX Maps

CAVVANBA consulting

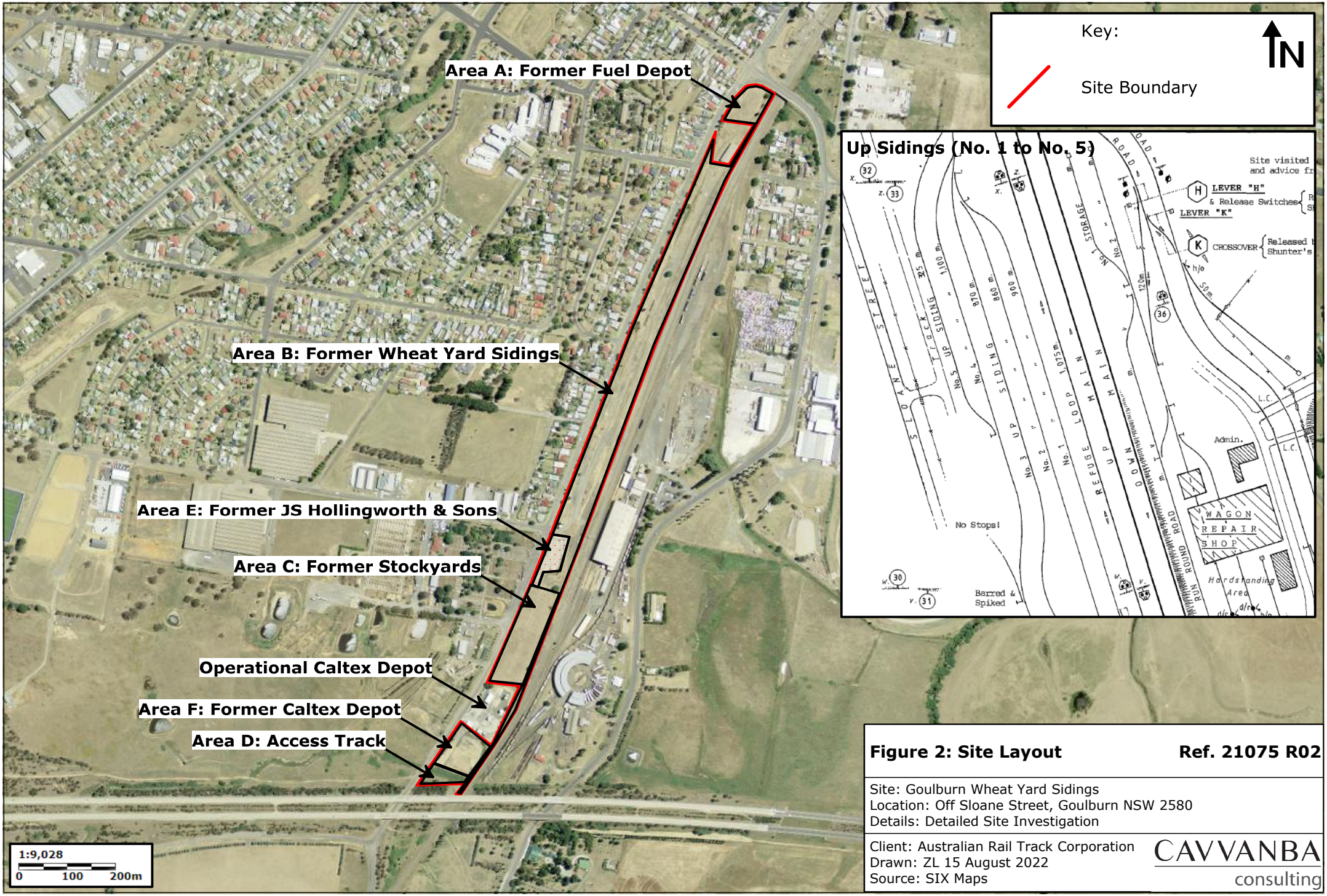

Figure 2: Site Layout **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

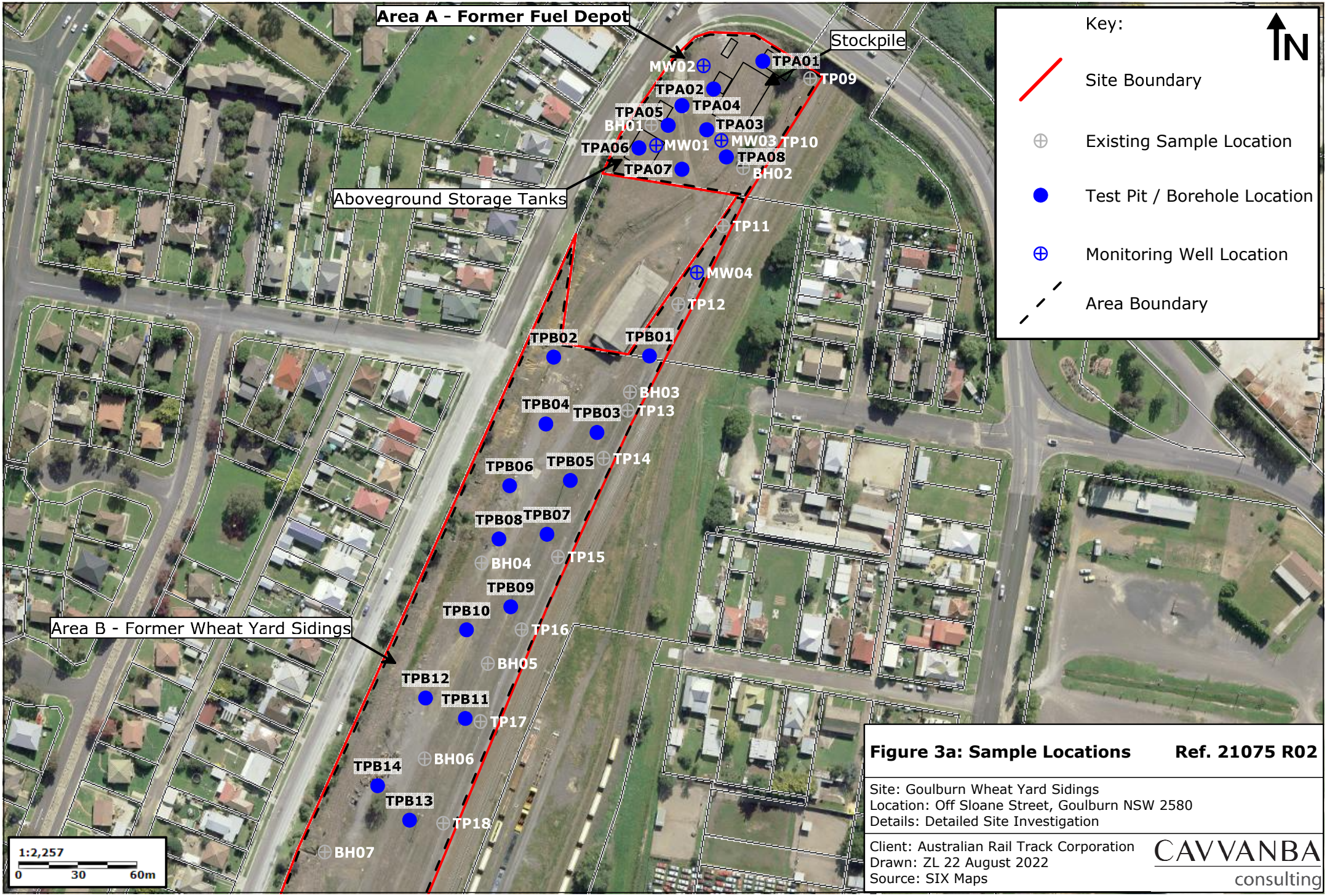

Figure 3a: Sample Locations **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 22 August 2022
Source: SIX Maps

CAVVANBA consulting

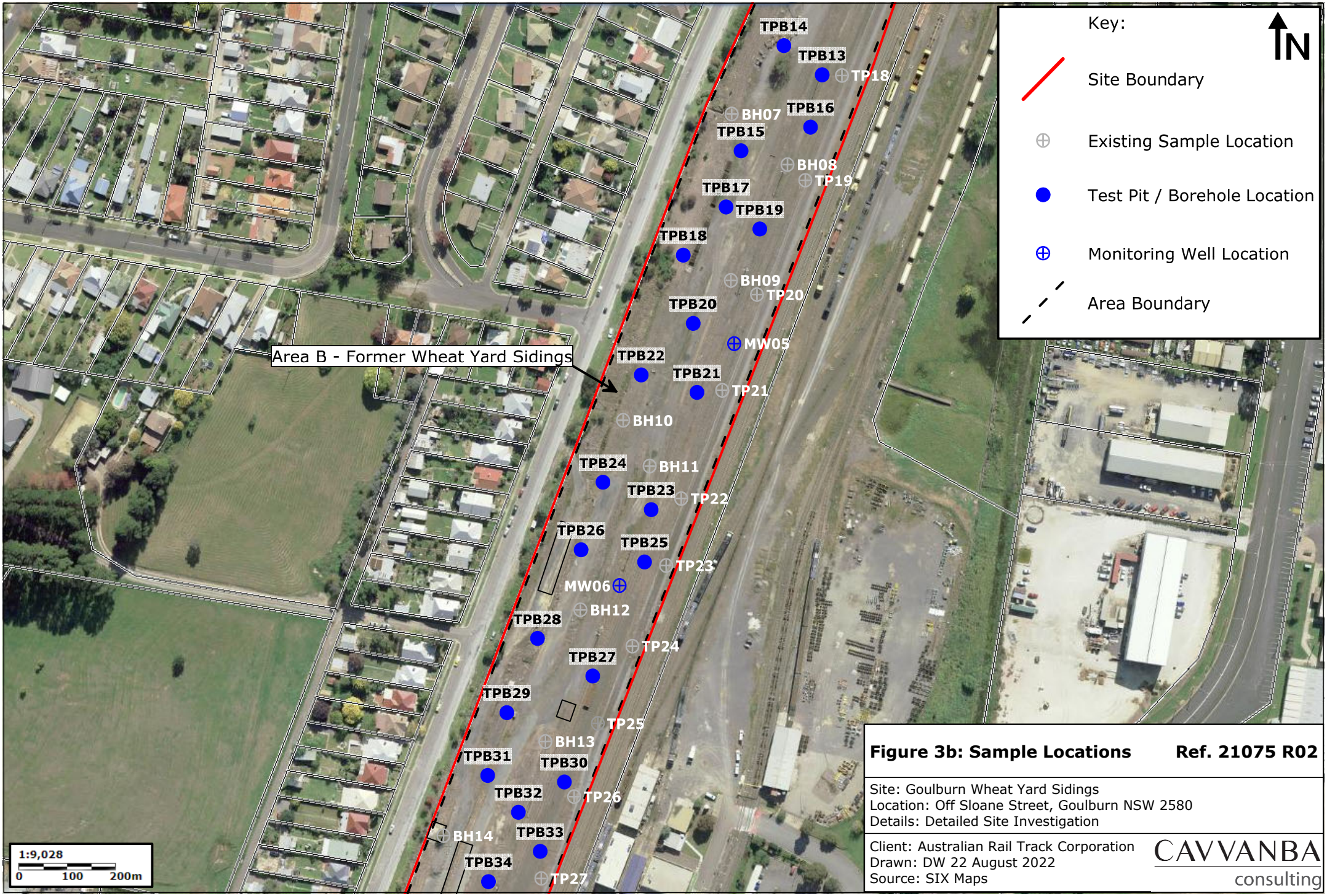

Figure 3b: Sample Locations **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: DW 22 August 2022
Source: SIX Maps

CAVVANBA consulting

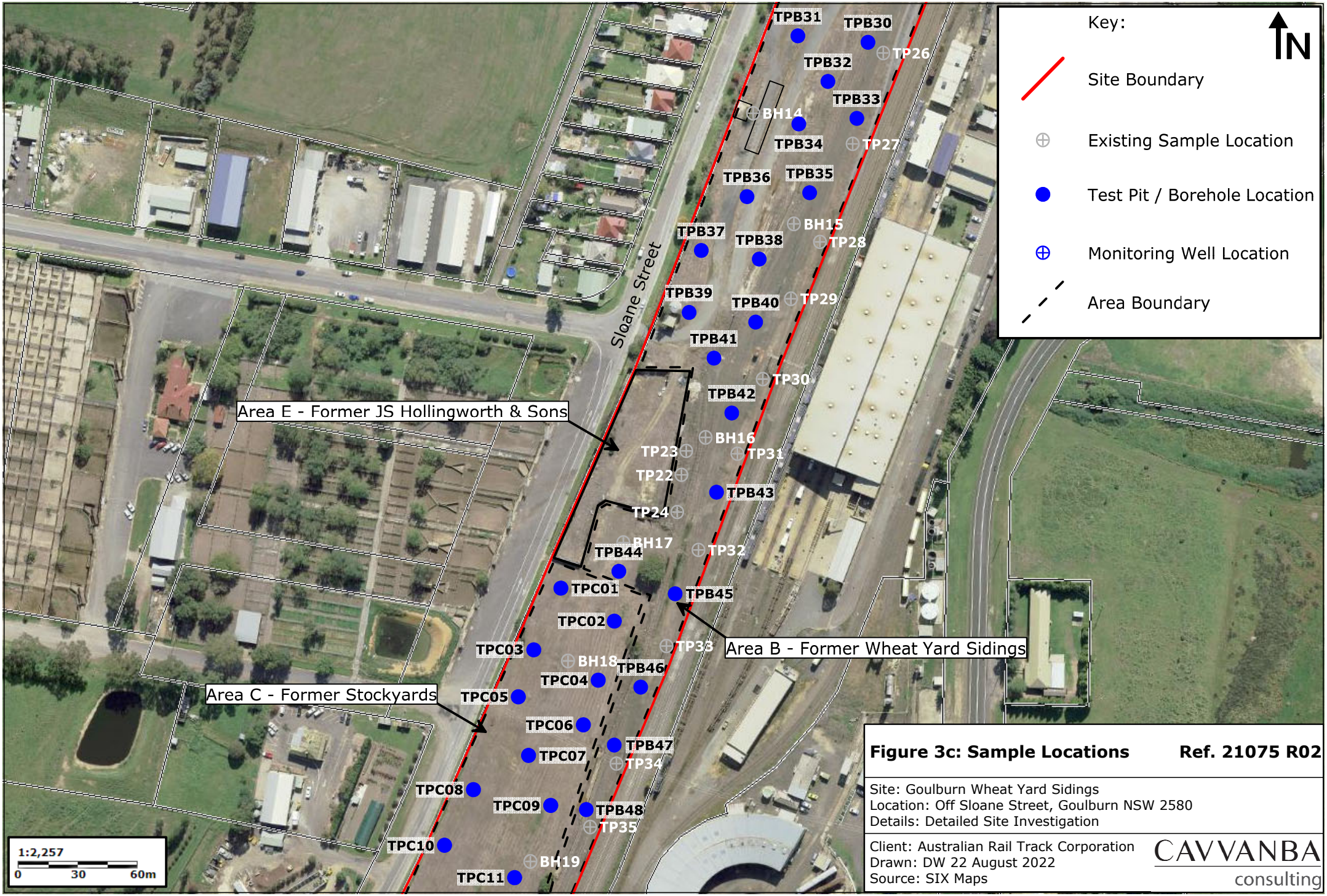

Figure 3c: Sample Locations **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: DW 22 August 2022
Source: SIX Maps

CAVVANBA consulting

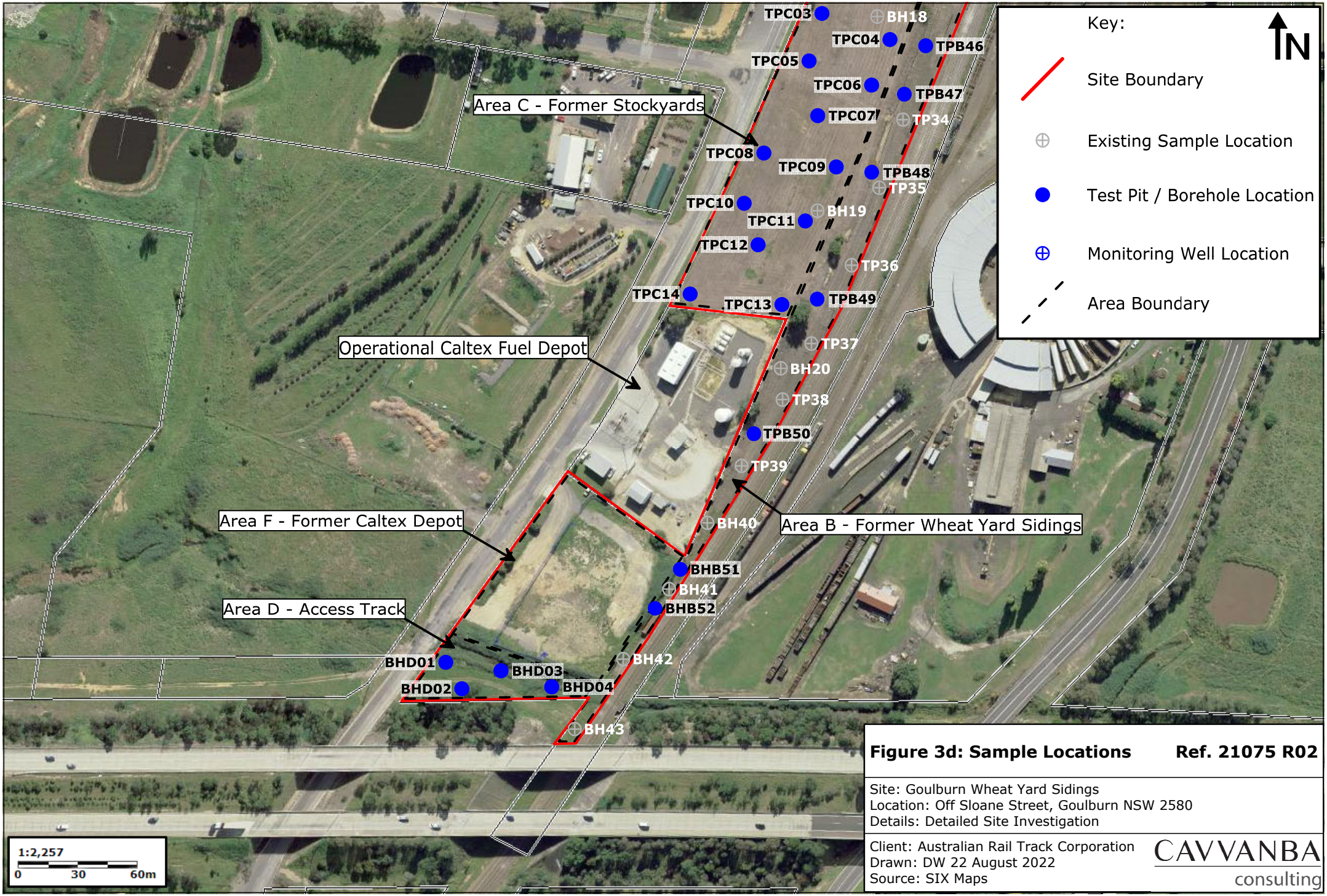

Figure 3d: Sample Locations **Ref. 21075 R02**

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: DW 22 August 2022
Source: SIX Maps

CAVVANBA consulting

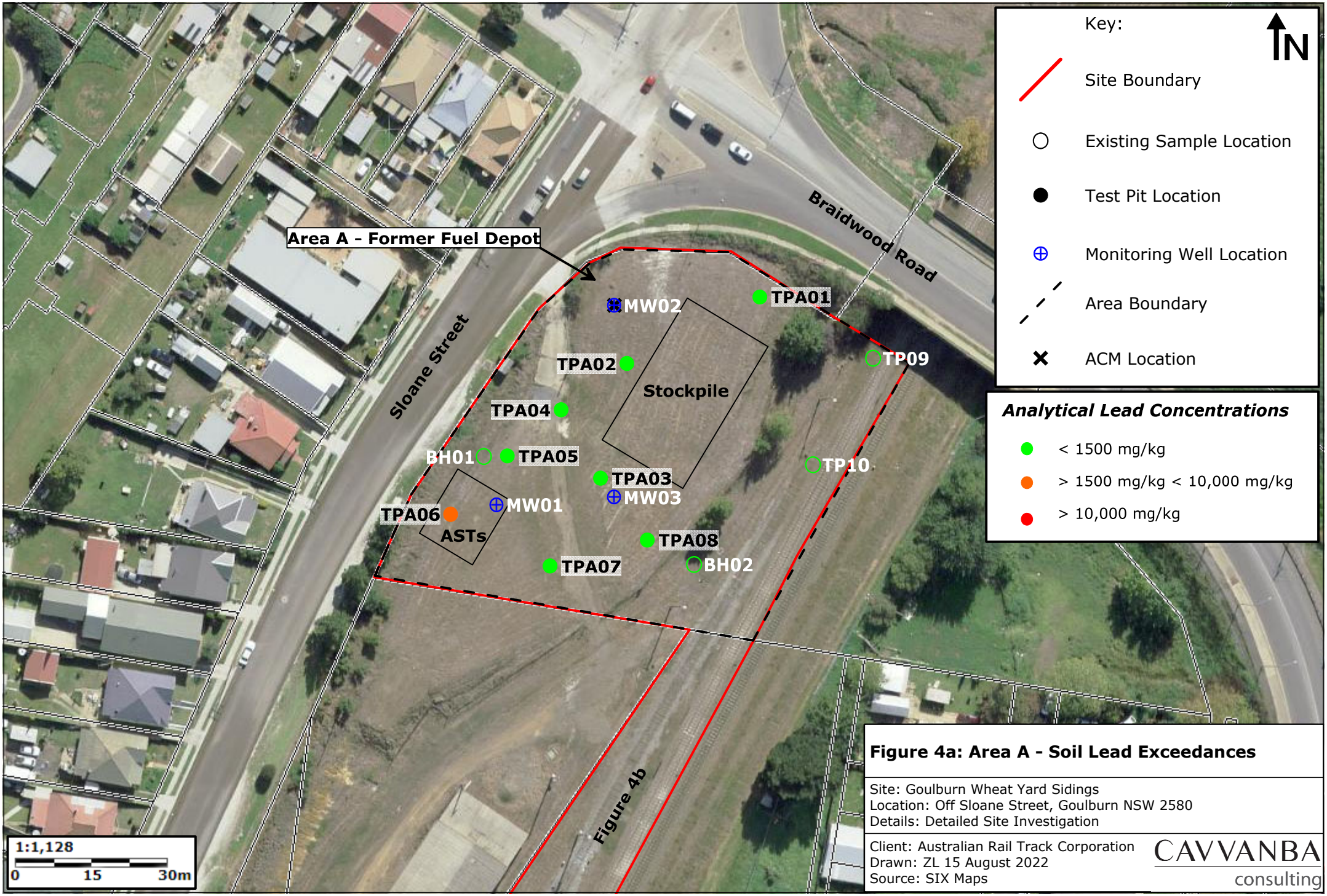

Figure 4a: Area A - Soil Lead Exceedances

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

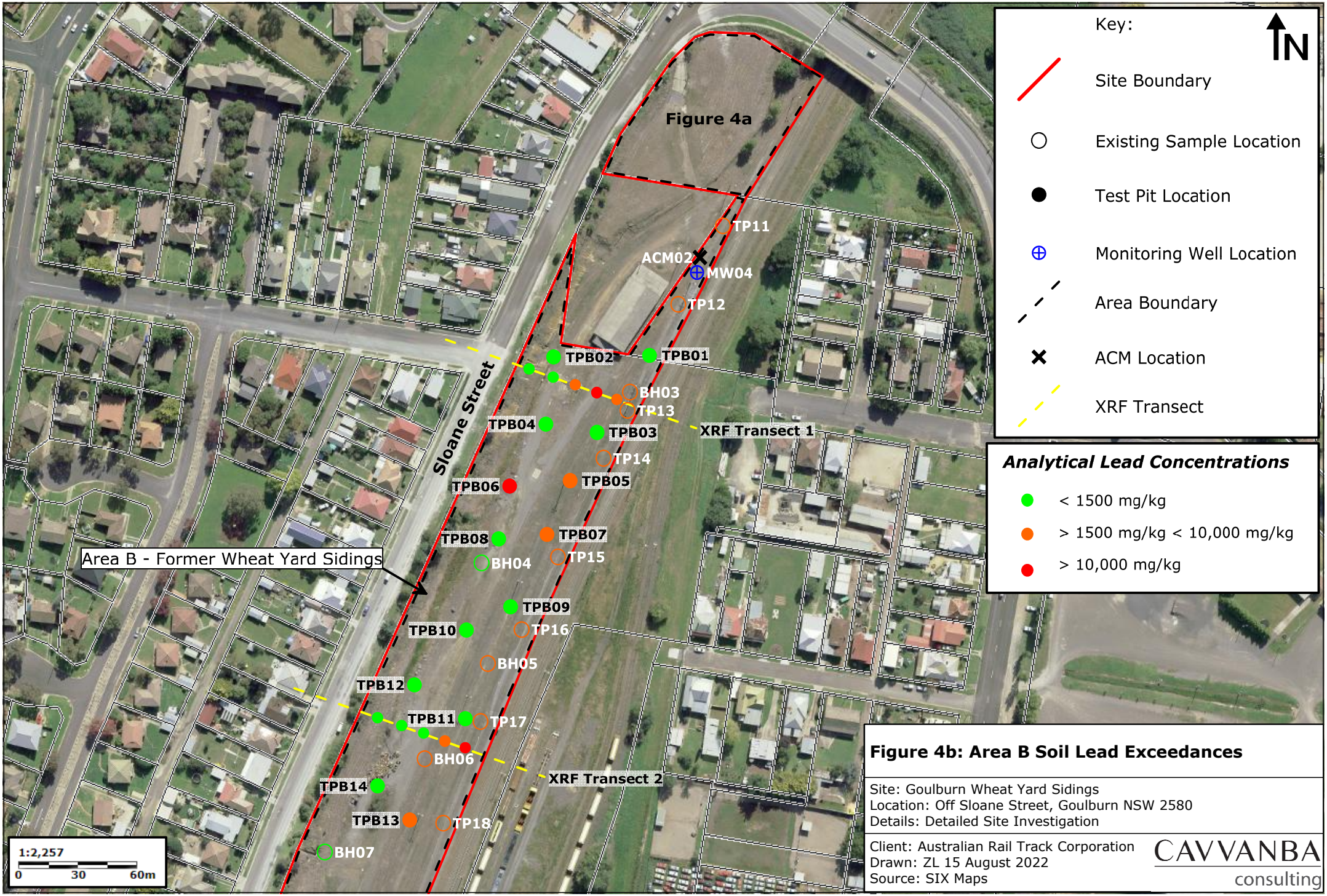

Figure 4b: Area B Soil Lead Exceedances

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

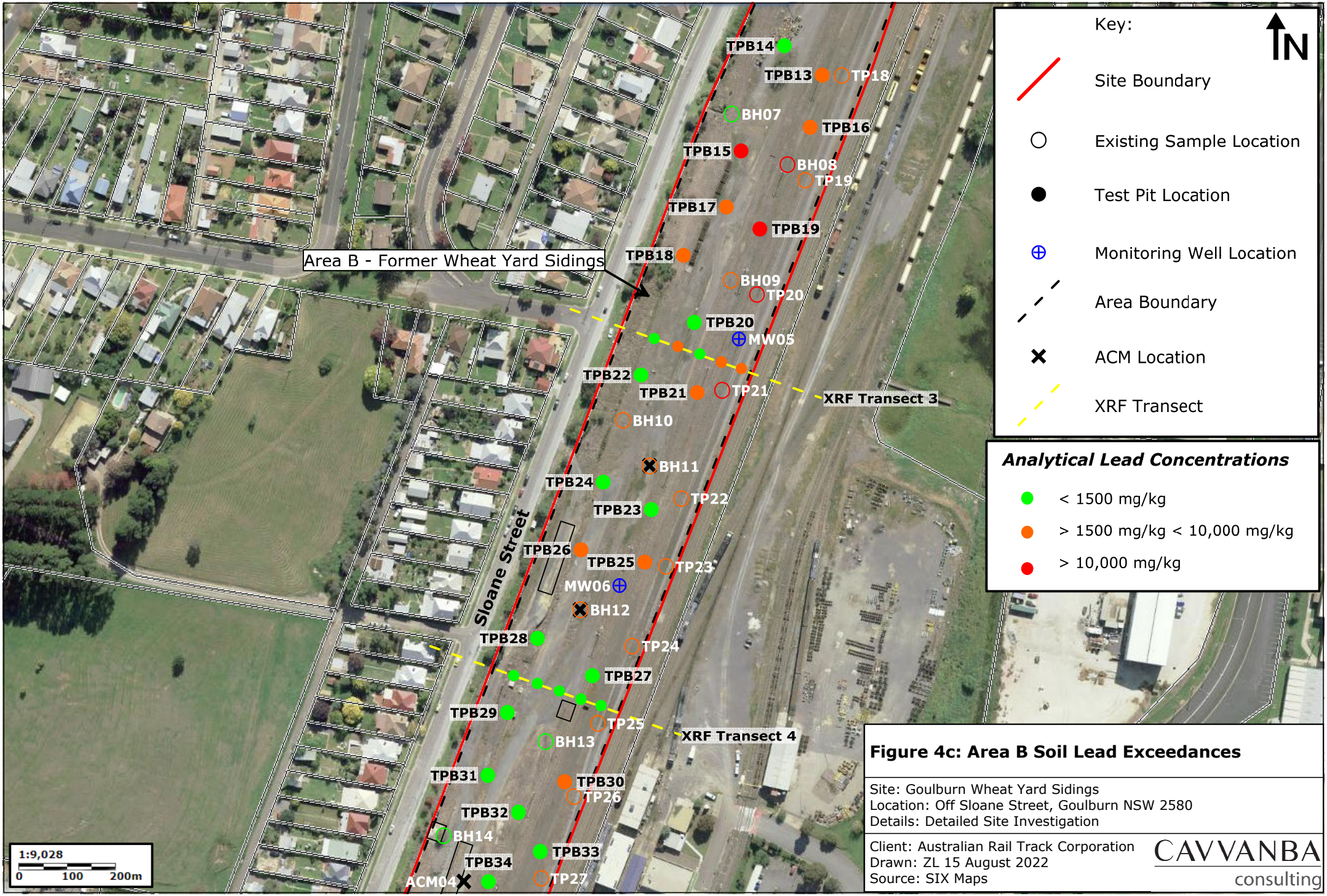

Figure 4c: Area B Soil Lead Exceedances

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

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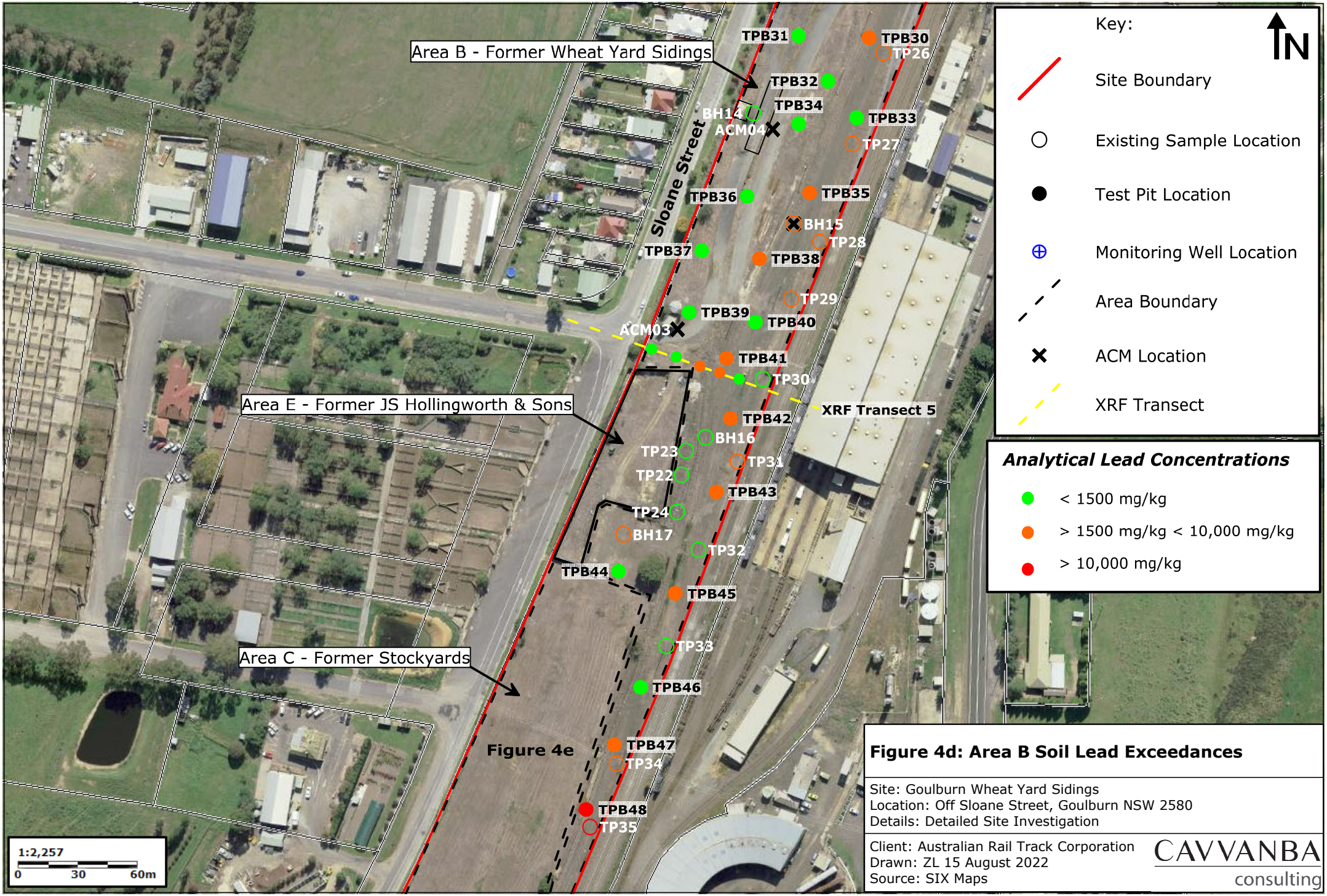

Figure 4d: Area B Soil Lead Exceedances

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

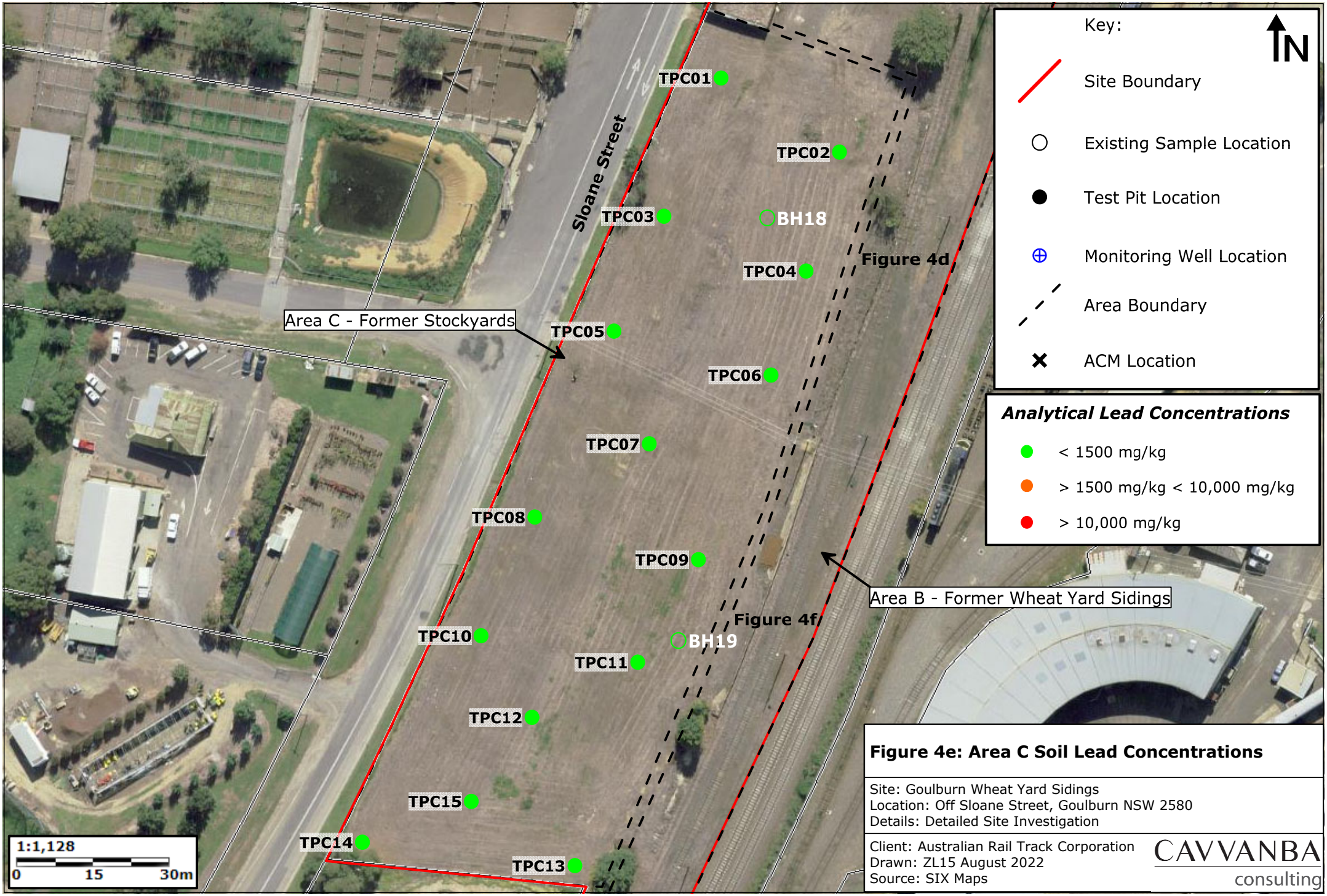

Figure 4e: Area C Soil Lead Concentrations

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL15 August 2022
Source: SIX Maps

CAVVANBA consulting

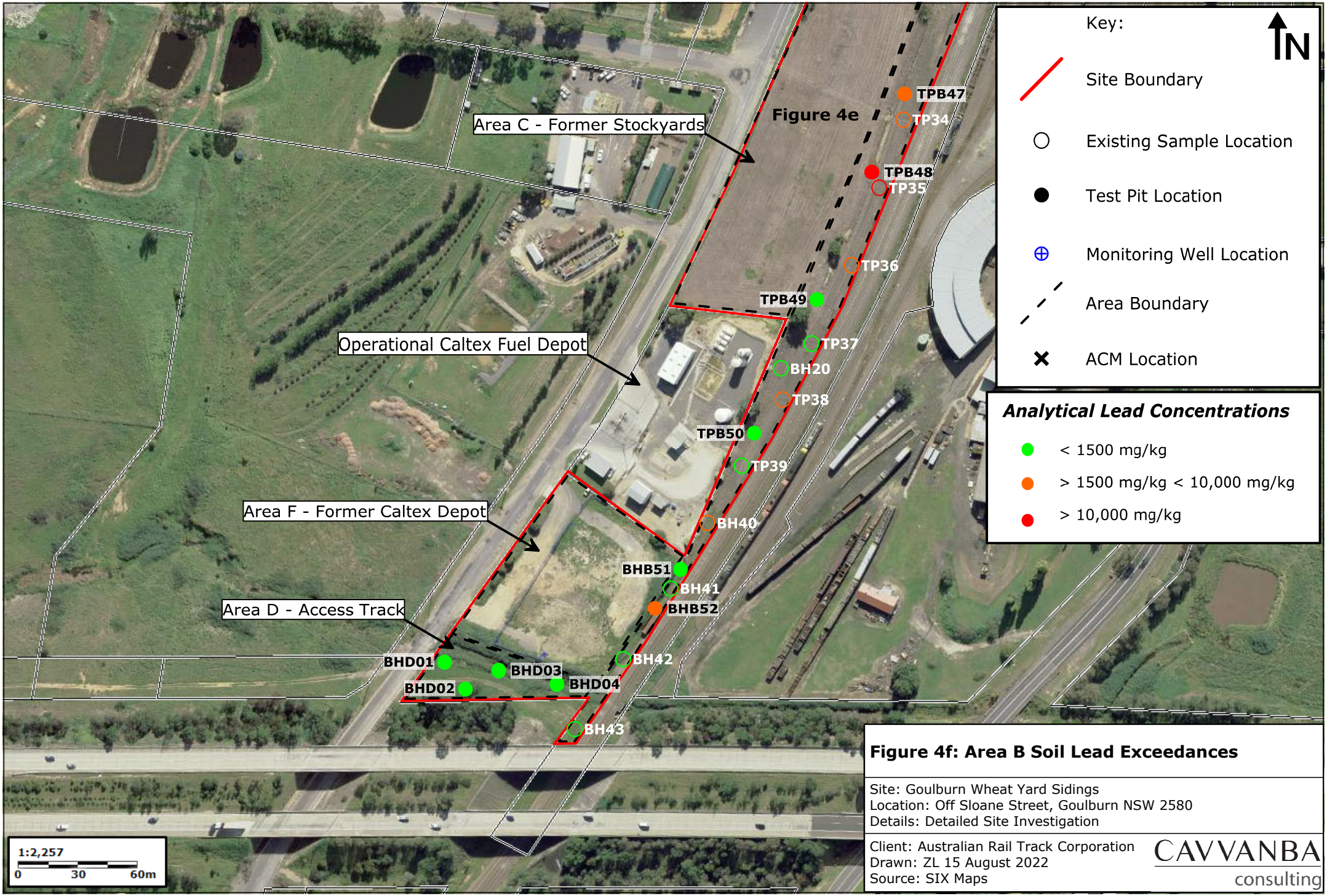

Figure 4f: Area B Soil Lead Exceedances

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

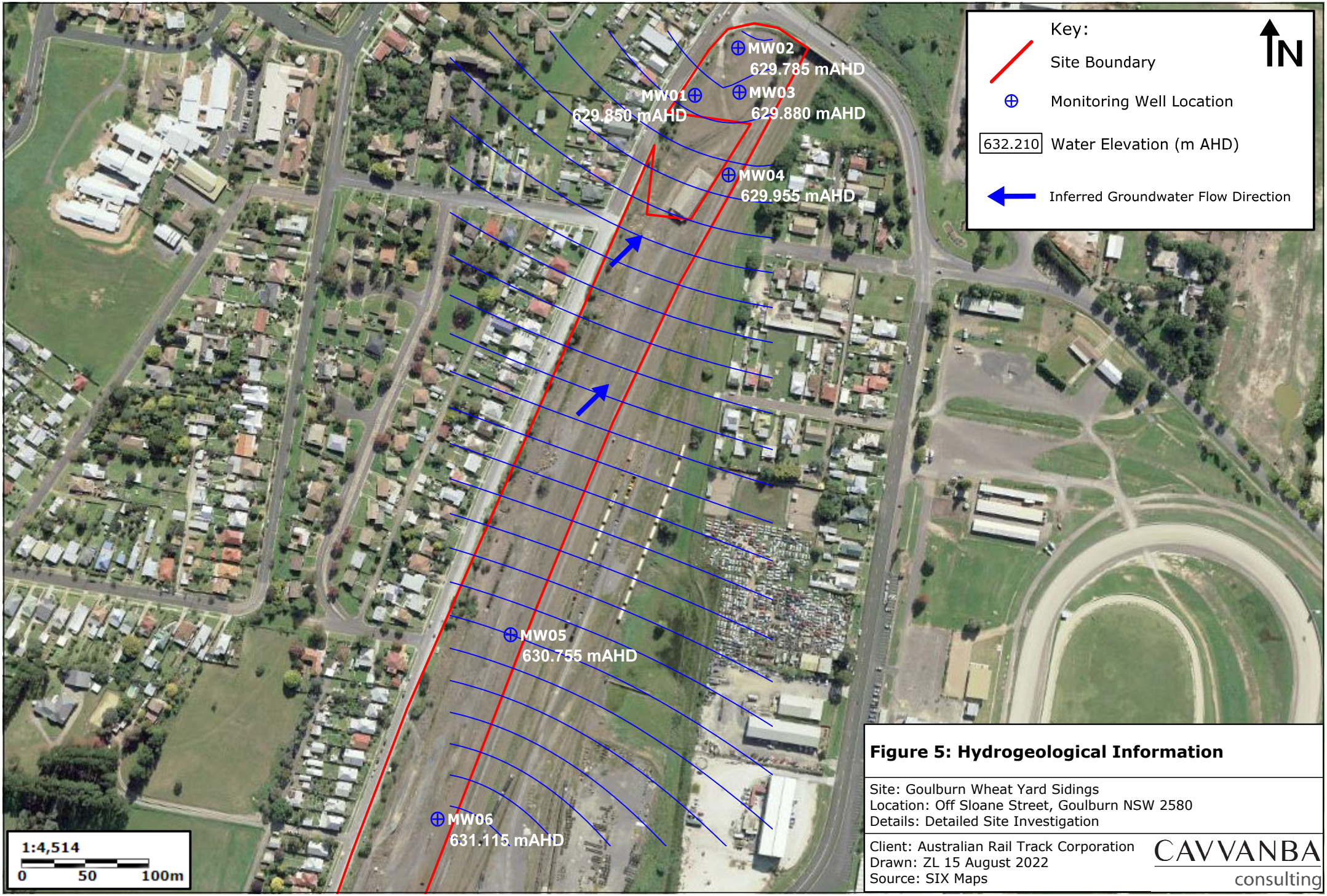

Figure 5: Hydrogeological Information

Site: Goulburn Wheat Yard Sidings
Location: Off Sloane Street, Goulburn NSW 2580
Details: Detailed Site Investigation

Client: Australian Rail Track Corporation
Drawn: ZL 15 August 2022
Source: SIX Maps

CAVVANBA consulting

Tables

Table 1: Soil Analytical Summary - Sample Description and Analytical Summary

Sample	Depth (m)	Date sampled	Description	Analysis							
				Heavy metals	BTEX	TRH	PAHs	Phenols	OCPs/OPPs	PCBs	Asbestos
Soil Analytical - Area A (Former fuel depot)											
TPA01	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted. Railway sleepers, plastic, glass.	•	•	•	•	•			
TPA01	0.3-0.4	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•	•	•					
TPA02	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•			•	•	•	•	
TPA03	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted. Timber sleeper pieces, brick.	•							
TPA04	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark grey, loose, sub-angular. Asphalt pieces below surface.	•	•	•	•	•	•	•	
TPA04	0.7-0.8	21/06/22	Sandy CLAY - light brown, soft, low plasticity, fine to medium grained sand, homogeneous. Light grey staining, slight hydrocarbon odour.	•	•	•	•	•			
TPA05	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular. Metal pins	•	•	•	•	•			
TPA06	0-0.1	21/06/22	FILL - Gravelly Silty Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	•	•	•	•	•	•	•	
TPA06	0.3-0.4	21/06/22	FILL - Silty Gravel, dark brown, loose, sub-angular, moderately sorted. Concrete footing, metal pins	•							
TPA07	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	•							
TPA08	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	•	•	•	•	•	•	•	
TPA08	0.7-0.8	21/06/22	Sandy CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•	•	•	•	•			
MW01	2.0-2.1	28/06/22	SILTSTONE - light brown.	•							
MW01	5.5-5.6	28/06/22	SILTSTONE - light brown. Slight hydrocarbon odour from 5.0m.	•	•	•	•	•	•	•	
MW01	6.0-6.1	28/06/22	SILTSTONE - light brown. Slight hydrocarbon odour from 5.0m.	•	•	•	•	•			
MW02	3.0-3.1	28/06/22	Silty CLAY - light brown, mottled red, soft, low plasticity, homogeneous.	•							
MW03	0-0.1	27/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	•	•	•	•	•	•	•	
MW03	4.0-4.1	27/06/22	SILTSTONE - light brown. Hydrocarbon odour and staining from 4.0m.	•	•	•	•	•	•	•	
MW03	5.0-5.1	27/06/22	SILTSTONE - light brown. Hydrocarbon odour and staining from 4.0m.	•	•	•	•	•			
ACM01	0.6-0.7	23/06/22	Three pieces of asbestos cement sheeting approximately 80x55x5mm.								•
Soil Analytical - Area B (Former wheat yard sidings)											
TPB01	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark brown, loose, sub-angular gravel. Ash present.	•	•	•	•	•	•	•	
TPB01	0.3-0.4	21/06/22	FILL - Silty Gravelly Clay, dark brown, loose, sub-angular gravel.	•							
TPB02	0-0.1	21/06/22	FILL - Sandy Clay, light brown, soft, fine to medium grained sand, organic matter.	•							
TPB03	0-0.1	21/06/22	FILL - Clayey Silty Gravel, light brown, loose, sub-angular, moderately sorted. Timber pieces.	•							
TPB03	0.3-0.4	21/06/22	FILL - Clayey Silty Gravel, light brown, loose, sub-angular, moderately sorted.	•	•	•	•	•			
TPB04	0-0.1	21/06/22	FILL - Silty Clayey Gravel, light brown, loose, sub-angular, moderately sorted. Metal pins.	•							
TPB04	0.5-0.6	21/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB05	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•							
TPB05	0.3-0.4	21/06/22	FILL - Silty Gravel, dark brown, loose, sub-angular, moderately sorted. Ash present.	•							
TPB06	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark grey, very soft, low plasticity, loose, sub-angular gravel.	•							
TPB06	0.3-0.4	21/06/22	Sandy CLAY - light brown, mottled red, soft, medium plasticity, fine to medium grained sand, homogeneous.	•							
TPB07	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular gravel, moderately sorted.	•	•	•	•	•			

Table 1: Soil Analytical Summary - Sample Description and Analytical Summary

Sample	Depth (m)	Date sampled	Description	Analysis							
				Heavy metals	BTEX	TRH	PAHs	Phenols	OCPs/OPPs	PCBs	Asbestos
TPB07	0.3-0.4	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular gravel, moderately sorted. Ash present 0.3-0.5m.	•							
TPB08	0-0.1	21/06/22	FILL - Silty Gravel, dark grey, loose, sub-angular gravel, moderately sorted.	•							
TPB08	0.3-0.4	21/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
TPB09	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	•	•	•	•	•	•	•	
TPB09	0.3-0.4	21/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
TPB10	0-0.1	21/06/22	FILL - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	•							
TPB10	0.2-0.3	21/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB11	0-0.1	21/06/22	FILL - Sandy Silty Clay, light brown, very soft, low plasticity, fine to medium grained sand, with sub-angular gravel.	•							
TPB11	0.3-0.4	21/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB12	0-0.1	21/06/22	FILL - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	•							
TPB12	0.3-0.4	21/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
TPB13	0-0.1	21/06/22	FILL - Silty Gravelly Clay, dark grey, low plasticity, loose, sub-angular gravel.	•	•	•	•	•	•	•	
TPB13	0.3-0.4	21/06/22	Sandy CLAY - light brown, mottled grey / red, soft, low plasticity	•							
TPB14	0-0.1	21/06/22	FILL - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	•							
TPB14	0.2-0.3	21/06/22	Silty CLAY - light brown, mottled grey, medium stiff, medium plasticity, homogeneous.	•							
TPB15	0-0.1	21/06/22	FILL - Silty Gravel, light grey, loose, sub-angular, moderately sorted.	•	•	•	•	•			
TPB15	0.2-0.3	21/06/22	Sandy CLAY - light brown, mottled grey, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB16	0-0.1	21/06/22	FILL - Silty Gravel, dark brown, loose, sub-angular, moderately sorted. Metal pins. Ash present at 0.2m.	•							
TPB16	0.3-0.4	21/06/22	FILL - Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	•	•	•	•	•			
TPB17	0-0.1	21/06/22	FILL - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted. Timber pieces, ash present from 0.2-0.3m.	•							
TPB17	0.5-0.6	21/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB18	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted. Timber pieces.	•							
TPB18	0.3-0.4	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•							
TPB19	0-0.1	21/06/22	FILL - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted. Timber pieces, ash present at 0.2m.	•	•	•	•	•	•	•	
TPB19	0.3-0.4	21/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
TPB20	0-0.1	21/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•							
TPB20	0.3-0.4	21/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB21	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	•	•	•	•	•	•	•	
TPB21	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter. Ash present 0.2-0.5m.	•	•	•	•	•			
TPB22	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, ballast near surface.	•							
TPB22	0.3-0.4	22/06/22	Silty CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB23	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal pieces.	•							

Table 1: Soil Analytical Summary - Sample Description and Analytical Summary

Sample	Depth (m)	Date sampled	Description	Analysis							
				Heavy metals	BTEX	TRH	PAHs	Phenols	OCPs/OPPs	PCBs	Asbestos
TPB23	0.7-0.8	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous. Ash present 0.6-0.7m.	•							
TPB24	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal pins, rubber.	•							
TPB24	0.3-0.4	22/06/22	FILL - Silty Gravel, dark brown, loose, sub-angular gravel, poorly sorted, roadbase. Ash present western side of test pit 0.3-0.4m.	•	•	•	•	•	•	•	
TPB25	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal pieces.	•							
TPB25	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present 0.3-0.5m.	•	•	•	•	•			
TPB25	0.5-0.6	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB26	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal, rubber.	•							
TPB26	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present 0.2-0.4m.	•							
TPB27	0-0.1	22/06/22	FILL - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	•	•	•	•	•	•	•	
TPB27	0.6-0.7	22/06/22	Silty CLAY - light brown, soft, medium plasticity, homogeneous.	•							
TPB28	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal, rubber, plastic.	•							
TPB28	0.3-0.4	22/06/22	FILL - Silty Gravel, dark brown / grey, loose, sub-angular, poorly sorted, roadbase. Railway sleeper at 0.6m.	•	•	•	•	•			
TPB29	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB29	0.3-0.4	22/06/22	Silty CLAY - light brown, soft, low plasticity, homogeneous.	•							
TPB30	0-0.1	22/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand. Metal pieces.	•	•	•	•	•			
TPB30	0.3-0.4	22/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	•							
TPB31	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB31	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present 0.3-0.4m.	•							
TPB32	0-0.1	22/06/22	FILL - Silty Clay, dark brown, soft, low plasticity, trace sub-angular gravel.	•							
TPB32	0.3-0.4	22/06/22	FILL - Silty Clay, dark brown, soft, low plasticity, trace sub-angular gravel.	•							
TPB33	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•	•	•	•	•	•	•	
TPB33	0.3-0.4	22/06/22	FILL - Silty Clay, dark brown, soft, low plasticity. Trace ash.	•							
TPB34	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB34	0.3-0.4	22/06/22	FILL - Silty Clay, dark brown, mottled red, soft, low plasticity.	•							
TPB35	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, plasticity, sub-angular gravel. Brick, metal pins.	•	•	•	•	•			
TPB35	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, plasticity, sub-angular gravel.	•							
TPB36	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB36	0.3-0.4	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present at 0.2m.	•	•	•	•	•			
TPB37	0-0.1	22/06/22	FILL - Silty Clay, dark brown, very soft, low plasticity, with sub-angular gravel, organic matter. Metal pins, glass.	•							
TPB37	0.3-0.4	22/06/22	Silty CLAY - dark brown, soft, medium plasticity, homogeneous.	•							
TPB38	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Metal, timber.	•	•	•	•	•	•	•	
TPB38	0.5-0.6	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•	•	•	•	•			
TPB39	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, roots.	•							
TPB40	0-0.1	22/06/22	FILL - Silty Gravel, light grey, loose, sub-angular, moderately sorted.	•							
TPB40	0.3-0.4	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							

Table 1: Soil Analytical Summary - Sample Description and Analytical Summary

Sample	Depth (m)	Date sampled	Description	Analysis							
				Heavy metals	BTEX	TRH	PAHs	Phenols	OCPs/OPPs	PCBs	Asbestos
TPB41	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•	•	•	•	•	•	•	
TPB41	0.3-0.4	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB42	0-0.1	22/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB42	0.3-0.4	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB43	0-0.1	22/06/22	FILL - Silty Clayey Gravel, dark grey, loose, sub-angular, moderately sorted. Ash present.	•	•	•	•	•	•	•	
TPB43	0.3-0.4	22/06/22	Silty CLAY - light brown, mottled red, soft, medium plasticity, homogeneous.	•							
TPB44	0-0.1	22/06/22	FILL - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	•							
TPB44	0.6-0.7	22/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB45	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present. Ballast present 0.3-0.4m.	•	•	•	•	•	•	•	
TPB46	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB46	0.3-0.4	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB46	0.5-0.6	23/06/22	Silty CLAY - light brown, mottled red, soft, medium plasticity, homogeneous.	•							
TPB47	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
TPB47	0.3-0.4	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present 0.2-0.5m.	•	•	•	•	•			
TPB48	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•	•	•	•	•	•	•	
TPB48	0.1-0.11	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Thin layer of potential hydrocarbon staining at 0.1-0.11m (10mm thick).	•	•	•	•	•			
TPB48	0.3-0.4	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Thin layer of potential hydrocarbon staining at 0.1-0.11m (10mm thick).	•							
TPB48	0.5-0.6	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB49	0-0.1	23/06/22	FILL - Gravelly Silty Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present.	•							
TPB49	0.5-0.6	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPB50	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•							
TPB50	0.3-0.4	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter. Ash present 0.2-0.3m.	•	•	•	•	•			
BHB51	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
BHB51	0.3-0.4	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel. Ash present 0.2-0.4m.	•							
BHB52	0-0.1	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•	•	•	•	•	•	•	
BHB52	0.3-0.4	23/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
MW04	0-0.1	28/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
MW05	0-0.1	29/06/22	FILL - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	•							
MW05	4.0-4.1	29/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
MW06	0-0.1	29/06/22	FILL - Silty Clayey Gravel, dark brown / grey, loose, sub-angular, moderately sorted.	•							
MW06	5.0-5.1	29/06/22	Silty CLAY - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	•							
ACM02	-	23/06/22	One piece of asbestos cement sheeting approximately 70x50x5mm.								•
ACM03	-	23/06/22	One piece of asbestos cement sheeting approximately 100x60x5mm.								•
ACM04	-	23/06/22	One piece of asbestos cement sheeting approximately 100x100x10mm.								•

Table 1: Soil Analytical Summary - Sample Description and Analytical Summary

Sample	Depth (m)	Date sampled	Description	Analysis							
				Heavy metals	BTEX	TRH	PAHs	Phenols	OCPs/OPPs	PCBs	Asbestos
Soil Analytical - Area C (Former stockyards)											
TPC01	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
TPC01	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC02	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	•	•	•	•	•			
TPC02	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC03	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel.	•							
TPC04	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
TPC04	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC05	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•			
TPC05	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand.	•							
TPC06	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
TPC06	0.4-0.5	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand.	•							
TPC07	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•							
TPC08	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel. Coal fragments?	•	•	•	•	•			
TPC08	0.3-0.4	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel.	•							
TPC09	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel, organic matter.	•	•	•	•	•	•	•	
TPC09	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC10	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	•							
TPC11	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•			
TPC11	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC12	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel, organic matter.	•							
TPC13	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
TPC13	0.6-0.7	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
TPC14	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•							
TPC15	0-0.1	23/06/22	FILL - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
TPC15	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•							
Soil Analytical - Area D (Access track)											
BHD01	0-0.1	23/06/22	FILL - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	•	•	•	•	•	•	•	
BHD01	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•	•	•	•				
BHD02	0-0.1	23/06/22	FILL - Silty Clay, light brown, very soft, low plasticity, organic matter.	•	•	•	•				
BHD02	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•	•	•	•				
BHD03	0-0.1	23/06/22	FILL - Silty Clay, light brown, very soft, low plasticity, trace sub-angular gravel, organic matter.	•	•	•	•	•	•	•	
BHD03	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•	•	•	•				
BHD04	0-0.1	23/06/22	FILL - Silty Clay, light brown, very soft, low plasticity, trace sub-angular gravel.	•	•	•	•				
BHD04	0.3-0.4	23/06/22	Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	•	•	•	•				

Table 2: Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
Soil Analytical - Area A (Former fuel depot)										
TPA01	0-0.1	92	nd	39	220	311	313	16	694	0.3
TPA01	0.3-0.4	128	2	21	163	396	-	18	724	0.3
TPA02	0-0.1	129	2	28	110	270	340	12	687	0.5
TPA03	0-0.1	60	2	19	232	273	183	15	490	0.3
TPA04	0-0.1	19	nd	22	43	95	42	14	185	nd
TPA04	0.7-0.8	9	nd	64	22	32	-	16	21	nd
TPA05	0-0.1	83	2	21	166	482	52	22	911	1.5
TPA06	0-0.1	77	nd	23	182	**4,670**	82	15	218	0.1
TPA06	0.3-0.4	154	2	28	154	364	-	15	574	0.3
TPA07	0-0.1	80	1	39	118	312	191	29	411	0.2
TPA08	0-0.1	39	2	15	164	242	178	11	437	0.2
TPA08	0.7-0.8	6	nd	42	20	21	-	18	20	nd
MW01	2.0-2.1	10	nd	52	45	37	-	42	70	nd
MW01	5.5-5.6	nd	nd	20	37	8	-	44	34	nd
MW01	6.0-6.1	nd	nd	12	22	9	-	28	18	nd
MW02	3.0-3.1	23	nd	28	21	103	-	32	37	nd
MW03	0-0.1	62	2	19	212	273	-	14	423	0.3
MW03	4.0-4.1	nd	nd	59	19	15	-	27	19	nd
MW03	5.0-5.1	6	nd	45	46	15	-	52	39	0.2
Soil Analytical - Area B (Former wheat yard sidings)										
TPB01	0-0.1	49	3	8	131	860	**3,089**	9	859	0.1
TPB01	0.3-0.4	21	4	20	39	189	-	24	3,870	nd
TPB02	0-0.1	9	nd	100	18	34	69	9	55	nd
TPB03	0-0.1	18	nd	9	77	103	854	5	80	nd
TPB03	0.3-0.4	68	4	6	124	1,260	-	9	567	0.5
TPB04	0-0.1	43	2	38	132	740	386	23	943	0.2
TPB04	0.5-0.6	7	nd	66	30	18	-	40	35	nd
TPB05	0-0.1	102	8	30	1,040	**6,010**	**4,220**	16	1,660	0.3
TPB05	0.3-0.4	36	4	nd	442	1,370	-	7	190	nd
TPB06	0-0.1	370	14	30	3,840	**36,900**	**4,198**	31	6,410	4.7
TPB06	0.3-0.4	23	3	53	95	66	-	13	736	nd
TPB07	0-0.1	196	4	19	655	**6,240**	**4,272**	15	1,900	1
TPB07	0.3-0.4	39	14	5	181	885	-	9	1,710	0.1
TPB08	0-0.1	38	2	18	103	672	683	15	558	nd
TPB08	0.3-0.4	nd	1	22	20	56	-	18	591	nd
TPB09	0-0.1	85	8	21	434	1,170	**3,737**	18	1,460	0.2
TPB09	0.3-0.4	nd	2	23	20	26	-	16	959	nd
TPB10	0-0.1	30	2	30	199	1,070	610	12	599	0.1
TPB10	0.2-0.3	12	nd	88	21	21	-	12	33	nd
TPB11	0-0.1	5	3	38	56	106	978	15	2,440	nd
TPB11	0.3-0.4	6	1	41	21	19	-	14	1,580	nd

Table 2: Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
TPB12	0-0.1	28	2	27	166	954	1,200	13	957	0.1
TPB12	0.3-0.4	nd	nd	28	17	10	-	18	44	nd
TPB13	0-0.1	74	3	23	683	**5,580**	828	11	1,050	2.4
TPB13	0.3-0.4	nd	5	34	79	18	-	8	1,900	nd
TPB14	0-0.1	12	nd	10	49	98	208	4	134	nd
TPB14	0.2-0.3	nd	2	28	13	13	-	15	424	nd
TPB15	0-0.1	170	2	26	1,120	**30,000**	**5,097**	21	1,220	2.6
TPB15	0.2-0.3	10	nd	35	83	211	-	6	293	nd
TPB16	0-0.1	84	12	22	934	**5,540**	**4,666**	21	1,400	0.7
TPB16	0.3-0.4	43	10	12	1,400	**4,870**	-	28	5,690	0.5
TPB17	0-0.1	33	5	14	286	**2,490**	1,422	12	1,760	0.3
TPB17	0.5-0.6	7	5	48	20	158	-	18	2,370	nd
TPB18	0-0.1	62	6	17	467	**4,290**	**9,490**	13	1,460	0.6
TPB18	0.3-0.4	160	5	28	1,110	**16,400**	-	31	2,180	2.8
TPB19	0-0.1	135	14	28	3,100	**10,600**	**2,907**	32	2,350	1
TPB19	0.3-0.4	212	6	27	783	856	-	16	883	0.1
TPB20	0-0.1	21	1	9	494	679	**1,841**	7	285	0.1
TPB20	0.3-0.4	nd	3	22	18	17	-	10	1,580	nd
TPB21	0-0.1	91	16	30	831	**2,560**	1,397	106	4,790	0.2
TPB21	0.3-0.4	33	3	5	26	42	-	11	1,050	nd
TPB22	0-0.1	56	2	15	159	840	1,053	11	409	0.1
TPB22	0.3-0.4	nd	1	26	15	12	-	14	1,270	nd
TPB23	0-0.1	186	2	40	198	556	630	20	711	0.2
TPB23	0.7-0.8	nd	2	35	12	8	-	12	2,340	nd
TPB24	0-0.1	27	nd	19	70	231	141	11	178	0.1
TPB24	0.3-0.4	20	nd	9	26	44		2	142	nd
TPB25	0-0.1	128	14	36	558	**4,120**	878	38	3,540	0.8
TPB25	0.3-0.4	182	18	26	922	**9,300**	-	41	4,610	1.1
TPB25	0.5-0.6	-	-	-	-	17	-	-	-	-
TPB26	0-0.1	50	29	36	584	**3,780**	1,149	33	4,260	0.4
TPB26	0.3-0.4	90	10	19	159	772	-	13	3,160	0.2
TPB27	0-0.1	16	nd	8	93	26	170	7	11	0.1
TPB27	0.6-0.7	nd	nd	44	19	12	-	21	29	nd
TPB28	0-0.1	54	24	28	426	1,300	432	26	1,160	0.4
TPB28	0.3-0.4	84	2	22	74	138	-	16	654	nd
TPB29	0-0.1	30	1	12	45	96	241	4	227	nd
TPB29	0.3-0.4	38	nd	44	24	12	-	18	43	nd
TPB30	0-0.1	88	11	19	1,060	**1,750**	**2,670**	23	958	0.2
TPB30	0.3-0.4	112	nd	30	74	124	-	22	560	nd
TPB31	0-0.1	27	9	39	450	932	222	99	1,640	0.3
TPB31	0.3-0.4	46	6	21	284	405	-	70	1,230	0.1
TPB32	0-0.1	15	4	64	113	477	611	31	572	nd

Table 2: Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
TPB32	0.3-0.4	6	nd	66	26	27	-	26	114	nd
TPB33	0-0.1	28	2	44	50	78	648	19	997	nd
TPB33	0.3-0.4	nd	nd	45	19	12	-	18	1,020	nd
TPB34	0-0.1	46	16	50	271	601	379	40	873	0.2
TPB34	0.3-0.4	11	nd	30	104	380	-	15	570	nd
TPB35	0-0.1	265	13	31	522	**1,760**	**2,064**	25	1,550	0.4
TPB35	0.3-0.4	174	29	46	1,440	**4,560**	-	1000	2,850	1.5
TPB36	0-0.1	30	21	34	1,500	1,280	1,008	54	1,490	12.5
TPB36	0.3-0.4	72	14	24	287	540	-	41	2,030	0.4
TPB37	0-0.1	9	nd	68	45	85	40	16	132	nd
TPB37	0.3-0.4	12	nd	54	43	90	-	17	126	nd
TPB38	0-0.1	38	321	91	2,200	**3,150**	**1,745**	72	5,420	0.8
TPB38	0.5-0.6	6	2	67	136	14	-	21	182	nd
TPB39	0-0.1	18	nd	64	69	284	137	19	235	nd
TPB40	0-0.1	29	9	33	280	1,170	579	33	1,060	0.2
TPB40	0.3-0.4	8	1	92	28	22	-	24	735	nd
TPB41	0-0.1	146	3	39	563	**3,990**	**3,436**	26	915	0.8
TPB41	0.3-0.4	9	3	92	238	17	-	22	1,120	nd
TPB42	0-0.1	189	8	21	985	**4,680**	**3,006**	21	1,460	0.6
TPB42	0.3-0.4	8	nd	51	28	12	-	21	728	nd
TPB43	0-0.1	101	8	12	721	**1,980**	**4,920**	14	1,750	0.3
TPB43	0.3-0.4	5	3	60	24	9	-	25	1,820	nd
TPB44	0-0.1	135	2	62	424	644	791	24	1,600	nd
TPB44	0.6-0.7	11	nd	52	28	16	-	19	32	nd
TPB45	0-0.1	147	nd	27	375	**3,410**	741	10	349	0.6
TPB46	0-0.1	30	nd	80	98	774	355	20	756	0.2
TPB46	0.3-0.4	110	6	36	416	**2,870**	-	18	3,020	2.3
TPB46	0.5-0.6	-	-	-	-	124	-	-	-	-
TPB47	0-0.1	114	2	33	766	**5,020**	**3,231**	25	932	0.5
TPB47	0.3-0.4	122	8	14	898	1,080	-	10	1,580	0.1
TPB48	0-0.1	181	2	19	816	**39,200**	**7,734**	8	949	5.2
TPB48	0.1-0.11	839	10	23	3,630	**193,000**	-	16	7,560	28.8
TPB48	0.3-0.4	-	-	-	-	**2,480**	-	-	-	-
TPB48	0.5-0.6	-	-	-	-	35	-	-	-	-
TPB49	0-0.1	357	5	5	620	326	**3,244**	9	303	nd
TPB49	0.5-0.6	9	nd	50	30	58	-	21	316	nd
TPB50	0-0.1	31	1	19	210	348	185	13	564	nd
TPB50	0.3-0.4	20	nd	5	39	71	-	11	206	nd
BHB51	0-0.1	64	1	31	59	253	108	9	459	nd
BHB51	0.3-0.4	249	6	12	210	1,340	-	11	1,020	0.3
BHB52	0-0.1	253	3	16	189	1,470	303	13	836	0.3
BHB52	0.3-0.4	210	3	12	270	**1,660**	-	10	2,220	0.4
MW04	0-0.1	34	4	20	194	1,140	-	24	1,620	0.4
MW05	0-0.1	26	7	19	369	1,440	-	16	1,650	0.2
MW05	4.0-4.1	nd	nd	29	12	16	-	8	15	nd
MW06	0-0.1	25	nd	7	91	126	-	7	160	nd
MW06	5.0-5.1	nd	nd	39	13	12	-	17	16	nd
Soil Analytical - Area C (Former stockyards)										
TPC01	0-0.1	11	nd	58	20	41	11	12	47	nd
TPC01	0.3-0.4	10	nd	73	24	36	-	32	10	nd
TPC02	0-0.1	26	nd	64	41	156	172	12	404	nd
TPC02	0.3-0.4	22	nd	80	40	319	-	20	201	nd
TPC03	0-0.1	19	nd	124	24	50	22	16	17	nd
TPC04	0-0.1	41	nd	42	52	104	50	12	134	nd

Table 2: Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
TPC04	0.3-0.4	8	nd	102	22	44	-	14	10	nd
TPC05	0-0.1	56	nd	32	23	40	19	7	46	nd
TPC05	0.3-0.4	10	nd	72	15	22	-	11	11	nd
TPC06	0-0.1	32	nd	47	48	145	78	11	207	nd
TPC06	0.4-0.5	6	nd	37	16	11	-	10	115	nd
TPC07	0-0.1	19	nd	86	29	36	15	9	34	nd
TPC08	0-0.1	11	nd	82	18	39	22	10	13	nd
TPC08	0.3-0.4	8	nd	61	17	45	-	10	8	nd
TPC09	0-0.1	42	nd	24	212	908	805	12	295	0.2
TPC09	0.3-0.4	10	nd	53	20	26	-	10	151	nd
TPC10	0-0.1	nd	nd	32	14	26	15	6	35	nd
TPC11	0-0.1	12	nd	49	39	84	55	9	100	nd
TPC11	0.3-0.4	7	nd	68	12	20	-	9	13	nd
TPC12	0-0.1	18	nd	93	29	65	54	9	63	nd
TPC13	0-0.1	13	nd	40	31	48	26	8	73	nd
TPC13	0.6-0.7	6	nd	59	14	17	-	8	11	nd
TPC14	0-0.1	10	nd	44	18	47	16	12	44	nd
TPC15	0-0.1	7	nd	37	17	32	28	9	41	nd
TPC15	0.3-0.4	8	nd	33	18	12	-	8	11	nd
Soil Analytical - Area D (Access track)										
BHD01	0-0.1	5	nd	18	15	20	< LOD	7	40	nd
BHD01	0.3-0.4	5	nd	31	17	38	-	12	20	nd
BHD02	0-0.1	19	nd	44	26	35	19	10	52	nd
BHD02	0.3-0.4	9	nd	52	24	27	-	11	16	nd
BHD03	0-0.1	6	nd	21	18	30	15	8	161	nd
BHD03	0.3-0.4	13	nd	92	28	42	-	17	13	nd
BHD04	0-0.1	nd	nd	11	8	15	< LOD	4	25	nd
BHD04	0.3-0.4	7	nd	20	32	28	-	9	32	nd
Statistics										
Samples analysed		158	158	158	158	162	77	158	158	158
Detects		141	86	157	158	162	77	158	158	67
% detect		89%	54%	99%	100%	100%	100%	100%	100%	42%
Maximum		839	321	124	3,840	**193,000**	**9,490**	1,000	7,560	29
Mean		65	10	37	298	**2,842**	1,270	25	940	1
Median		30	4	31	76	142	432	15	559	0
Minimum		<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Exceedance of HILs		0	0	0	3	22	14	0	11	0
Total Exceedance of EILs		15	1	0	60	78	54	1	105	0
Criteria										
HILs - Commercial / Industrial D		3,000	900	3,600	240,000	**1,500**	**1,500**	6,000	400,000	730/180
EILs - Commercial and Industrial (Aged)		160	-	670	300	1,800	1,800	290	700	-

Table 3: Soil Analytical Summary - ASLP (Lead)

Location	Depth	Date sampled	Units	Lead
LOR Soil			mg/kg	*5*
LOR ASLP			mg/L	*0.1*
Analytical - Soil				
TPA06	0.0-0.1	21/06/2022	mg/kg	4,670
			mg/L	0.159
TPB06	0.0-0.1	21/06/2022	mg/kg	36,900
			mg/L	4
TPB18	0.3-0.4	21/06/2022	mg/kg	16,400
			mg/L	3.22
TPB41	0.0-0.1	22/06/2022	mg/kg	3,990
			mg/L	2.27
TPB48	0.1-0.11	23/06/2022	mg/kg	193,000
			mg/L	21.8

Table 4: Transect XRF Screening Data Summary (mg/kg)

Sample	Arsenic	Arsenic Error (+ / -)	Copper	Copper Error (+ / -)	Lead	Lead Error (+ / -)	Zinc	Zinc Error (+ / -)
XRF Data - Transects								
t1a	169	47	447	36	**3,453**	60	1,030	42
t1b	1,023	120	1,846	78	**16,125**	151	1,909	66
t1c	98	32	282	28	**1,813**	41	1,172	41
t1d	< LOD	27	97	22	511	23	546	29
t1e	< LOD	8	< LOD	24	17	7	62	11
t2a	450	99	4,469	114	**11,719**	126	2,680	77
t2b	81	39	2,079	64	**2,750**	50	1,626	49
t2c	< LOD	39	215	27	1,111	33	750	34
t2d	64	23	178	32	568	29	1,047	49
t2e	11	7	< LOD	25	31	8	97	14
t3a	469	96	11,668	213	**7,897**	121	15,266	210
t3b	92	37	1,236	55	**2,098**	47	3,869	79
t3c	55	26	239	30	972	34	654	35
t3d	< LOD	56	269	29	**2,327**	48	1,057	41
t3e	70	11	58	15	193	12	318	19
t4a	< LOD	19	231	31	160	16	261	24
t4b	61	23	279	31	722	28	1,327	47
t4c	< LOD	14	64	18	137	12	229	19
t4d	31	15	97	22	321	19	332	24
t4e	< LOD	9	36	13	66	8	144	12
t5a	100	24	383	29	1,113	30	1,554	44
t5b	75	37	545	36	**2,453**	47	2,397	58
t5c	511	84	961	52	**9,840**	106	1,661	55
t5d	< LOD	27	98	22	515	23	488	28
t5e	< LOD	9	< LOD	19	37	7	98	11
Criteria								
HILs - Commercial / Industria	3,000	-	240,000	-	**1,500**	-	400,000	-
EILs - Commercial and Industrial (Aged)	160	-	300	-	1,800	-	700	-

Table 5: Soil Analytical Summary - TRH and BTEXN (mg/kg)

Sample	Depth (m)	Benzene	Toluene	Ethyl benzene	meta- & para-Xylenes	ortho-Xylene	Naphthalene	F1 TRH C_6 - C_{10}	F2 TRH >C_{10} - C_{16}	F3 TRH >C_{16} - C_{34}	F4 TRH >C_{34} - C_{40}
LOR		*0.2*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*10*	*50*	*100*	*100*
Soil Analytical - Area A (Former fuel depot)											
TPA01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA04	0.7-0.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA05	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	130	280
TPA08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA08	0.7-0.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW01	5.5-5.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW01	6.0-6.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	4.0-4.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	5.0-5.1	nd	nd	nd	nd	nd	nd	12	300	320	nd
Soil Analytical - Area B (Former wheat yard sidings)											
TPB01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB03	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB07	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	270	130
TPB09	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB13	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	970	420
TPB15	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	380	140
TPB16	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	330	110
TPB19	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	820	220
TPB21	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB21	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	120	nd
TPB24	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB25	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	370	nd
TPB27	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB28	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB30	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB33	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB35	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	110	nd
TPB36	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB38	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	660	320
TPB38	0.5-0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB41	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	1,150	150
TPB43	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB45	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	250	100
TPB47	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB48	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	150	nd
TPB48	0.1-0.11	nd	nd	nd	nd	nd	nd	nd	nd	330	100
TPB50	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	360	nd
BHB52	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area C (Former stockyards)											
TPC01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC05	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC09	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC11	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC13	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC15	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area D (Access track)											
BHD01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD01	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD02	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD03	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD04	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Statistics											
Samples analysed		59	59	59	59	59	59	59	59	59	59
Detects		0	0	0	0	0	0	1	1	16	10
% detect		0%	0%	0%	0%	0%	0%	2%	2%	27%	17%
Maximum		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	12	300	1,150	420
Mean		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	12	300	420	197
Median		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	12	300	330	145
Minimum		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
Criteria - Commercial / Industrial (Sand)											
HSL D - 0 m to < 1 m		3	NL	NL	NL		NL	260	NL	NL	NL
HILs - Commercial / Industrial D		-	-	-	-	-	-	-	-	-	-
Ecological - Commercial / Industrial (Aged)		75	135	165	180		370	215	170	1,700	3,300
Management Limits - Commercial and Industrial		-	-	-	-		-	700	1,000	3,500	10,000
HSL D - Direct Contact		430	99,000	27,000	81,000		-	26,000	20,000	27,000	38,000
Intrusive Maintenance Worker - Direct Contact		1,100	120,000	85,000	130,000		29,000	82,000	62,000	85,000	120,000
Intrusive Maintenance Worker - Shallow Trench - 0 m t		350	NL	NL	NL		NL	NL	NL	NL	NL

Table 6: Soil Analytical Summary - PAHs & Phenols (mg/kg)

Sample	Depth (m)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Total PAHs	B(a)P TEQ	Phenol	Pentachlorophenol
LORs		*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*2*
Soil Analytical - Area A (Former fuel depot)																					
TPA01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPA02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA04	0.7-0.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPA05	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPA06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA08	0.7-0.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
MW01	5.5-5.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW01	6.0-6.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
MW03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	4.0-4.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	5.0-5.1	nd	nd	nd	nd	0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
Soil Analytical - Area B (Former wheat yard sidings)																					
TPB01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB03	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB07	0-0.1	nd	nd	nd	nd	0.8	nd	1.4	1.5	0.6	0.8	1	nd	0.6	nd	nd	nd	6.7	0.8	----	----
TPB09	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB13	0-0.1	nd	nd	nd	nd	1.4	nd	4.4	4.5	1.4	1.7	2.2	0.8	1.8	1.2	nd	1.4	20.8	2.4	nd	nd
TPB15	0-0.1	nd	nd	nd	nd	0.9	nd	0.6	0.5	nd	nd	nd	nd	nd	nd	nd	nd	2	nd	----	----
TPB16	0.3-0.4	nd	nd	nd	nd	0.6	nd	0.6	0.6	nd	nd	nd	nd	nd	nd	nd	nd	1.8	nd	----	----
TPB19	0-0.1	nd	nd	nd	nd	0.9	nd	0.8	0.7	nd	nd	0.5	nd	nd	nd	nd	nd	2.9	nd	nd	nd
TPB21	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB21	0.3-0.4	nd	nd	nd	nd	0.7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.7	nd	----	----
TPB24	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB25	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB27	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB28	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB30	0-0.1	nd	nd	nd	nd	3.7	nd	6.4	4.3	nd	1.2	0.9	nd	nd	nd	nd	nd	16.5	nd	----	----
TPB33	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB35	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB36	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB38	0-0.1	nd	nd	nd	nd	nd	nd	0.6	0.6	nd	nd	nd	nd	nd	nd	nd	nd	1.2	nd	nd	nd
TPB38	0.5-0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB41	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB43	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB45	0-0.1	nd	nd	nd	nd	0.6	nd	0.7	0.7	nd	nd	nd	nd	nd	nd	nd	nd	2	nd	nd	nd
TPB47	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPB48	0-0.1	nd	nd	nd	nd	0.6	nd	1.7	1.8	0.8	0.9	1.2	nd	0.9	0.6	nd	0.7	9.2	1.2	nd	nd
TPB48	0.1-0.11	nd	nd	nd	nd	nd	nd	0.8	0.8	nd	nd	0.8	nd	nd	nd	nd	nd	2.4	nd	----	----
TPB50	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
BHB52	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

Table 6: Soil Analytical Summary - PAHs & Phenols (mg/kg)

Sample	Depth (m)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Total PAHs	B(a)P TEQ	Phenol	Pentachlorophenol
LORs		*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*2*
Soil Analytical - Area C (Former stockyards)																					
TPC01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPC04	0-0.1	nd	nd	nd	nd	nd	nd	0.9	1.1	nd	nd	0.6	nd	nd	nd	nd	nd	2.6	nd	nd	nd
TPC05	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPC06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPC09	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC11	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
TPC13	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC15	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area D (Access track)																					
BHD01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD01	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
BHD02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD02	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
BHD03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD03	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
BHD04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD04	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	----	----
Statistics																					
Samples analysed		59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	31	31
Detects		0	0	0	0	10	0	11	11	3	4	7	1	3	2	0	2	12	3	0	0
% detect		0%	0%	0%	0%	17%	0%	19%	19%	5%	7%	12%	2%	10%	3%	0%	3%	20%	5%	0%	0%
Maximum		<0.5	<0.5	<0.5	<0.5	3.7	<0.5	6.4	4.5	1.4	1.7	2.2	0.8	1.8	1.2	<0.5	1.4	20.8	2.4	<0.5	<2
Mean		<0.5	<0.5	<0.5	<0.5	1.1	<0.5	1.7	1.6	0.9	1.2	1.0	0.8	1.1	0.9	<0.5	1.1	5.7	1.5	<0.5	<2
Median		<0.5	<0.5	<0.5	<0.5	0.8	<0.5	0.8	0.8	0.8	1.1	0.9	0.8	0.9	0.9	<0.5	1.1	2.5	1.2	<0.5	<2
Minimum		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2
Criteria																					
HILs - Commercial / Industrial D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,000	40	240,000	660
EILs - Commercial / Industrial (Aged)		370	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-

Table 7: Soil Analytical Summary - OCPs, OPPs & PCBs (mg/kg)

Sample	Depth (m)	Heptachlor	Total Chlordane (sum)	Endrin	Endosulfan (sum)	Methoxychlor	Sum of Aldrin + Dieldrin	Sum of DDD + DDE + DDT	Chloropyrifos	Total Polychlorinated Biphenyls
LORs		*0.2*	*0.1*	*0.05*	*0.05*	*0.2*	*0.05*	*0.05*	*0.05*	*0.1*
Soil Analytical - Area A (Former fuel depot)										
TPA02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA04	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPA08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW01	5.5-5.6	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	4.0-4.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area B (Former wheat yard sidings)										
TPB01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB09	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB13	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB19	0-0.1	nd	nd	nd	nd	nd	nd	0.07	nd	nd
TPB21	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB24	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB27	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB33	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB38	0-0.1	nd	nd	nd	nd	nd	0.35	nd	nd	3
TPB41	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB43	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB45	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPB48	0-0.1	nd	nd	nd	nd	nd	nd	0.72	nd	nd
BHB52	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area C (Former stockyards)										
TPC01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TPC04	0-0.1	nd	nd	nd	nd	nd	nd	0.37	nd	nd
TPC06	0-0.1	nd	nd	nd	nd	nd	nd	0.61	nd	nd
TPC09	0-0.1	nd	nd	nd	nd	nd	nd	1.79	nd	nd
TPC13	0-0.1	nd	nd	nd	nd	nd	nd	0.15	nd	nd
TPC15	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Area D (Access track)										
BHD01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
BHD03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Statistics										
Samples analysed		29	29	29	29	29	29	29	29	29
Detects		0	0	0	0	0	1	6	0	1
Maximum		<0.2	<0.1	<0.05	<0.05	<0.2	0.35	1.79	<0.05	3.00
Mean		<0.2	<0.1	<0.05	<0.05	<0.2	0.35	0.62	<0.05	3.00
Median		<0.2	<0.1	<0.05	<0.05	<0.2	0.35	0.49	<0.05	3.00
Minimum		<0.2	<0.1	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.1
Criteria										
HILs - Commercial / Industrial D		50	530	100	2,000	2,500	45	3,600	2,000	7
EILs - Commercial and Industrial (Aged)		-	-	-	-	-	-	640 (DDT only)		-

Table 8: Soil Analytical Summary - Asbestos

Sample	Location	Field observations	Sample Weight (dry)	Asbestos detected in laboratory sample?	Asbestos Type Laboratory result	Classification - AF or ACM Based on laboratory & field assessment
ACM01	In fill material at MW02, at a depth of approximately 0.7 m (Area A).	Three pieces of asbestos cement sheeting approximately 80x55x5mm.	51.8	Yes	Chrysotile	ACM
ACM02	Found on the surface near the location of MW04 (Area B).	One piece of asbestos cement sheeting approximately 70x50x5mm.	25.8	Yes	Chrysotile	ACM
ACM03	On the surface near the small building at the entrance gate from Sloane Street (Area B).	One piece of asbestos cement sheeting approximately 100x60x5mm.	28.9	Yes	Chrysotile	ACM
ACM04	On the surface of the fill area near TPB34 (Area B).	One piece of asbestos cement sheeting approximately 100x100x10mm.	212	Yes	Chrysotile + Amosite	ACM

Table 9: Soil Analytical Summary - Quality Control (mg/kg)

Analyte	LOR mg/kg	TPA01_0.0-0.1	QS01	**RPD**	TPA01_0.0-0.1	QS02	**RPD**	TPA07_0.0-0.1	QS03	**RPD**	TPA07_0.0-0.1	QS04	**RPD**	TPB09_0.0-0.1	QS05	**RPD**	TPB09_0.0-0.1	QS06	**RPD**
Type	-	*Primary*	*Intralab Duplicate*	*%*	*Primary*	*Interlab Duplicate*	*%*	*Primary*	*Intralab Duplicate*	*%*	*Primary*	*Interlab Duplicate*	*%*	*Primary*	*Intralab Duplicate*	*%*	*Primary*	*Interlab Duplicate*	*%*
Date	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-
Media	*Soil*	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-
Heavy Metals																			
Arsenic	*5*	92	110	18	92	110	18	80	50	46	80	51	44	85	28	**101**	85	36	**81**
Cadmium	*1*	nd	1	-	nd	1	-	1	nd	-	1	1	18	8	2	**120**	8	3	**91**
Chromium	*2*	39	21	**60**	39	31	23	39	20	**64**	39	20	**64**	21	27	25	21	41	**65**
Copper	*5*	220	269	20	220	230	4	118	82	36	118	80	38	434	184	**81**	434	210	**70**
Lead	*5*	311	330	6	311	300	4	312	224	33	312	190	49	1170	1440	21	1170	1200	3
Nickel	*2*	16	18	12	16	26	48	29	14	**70**	29	20	37	18	11	48	18	27	40
Zinc	*5*	694	578	18	694	410	**51**	411	387	6	411	260	45	1460	764	**63**	1460	710	**69**
Mercury	*0.1*	0.3	0.3	0	0.3	0.2	40	0.2	0.3	40	0.2	nd	-	0.2	nd	-	0.2	0.1	-
Organics																			
Benzene	*0.2*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Toluene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Ethyl benzene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
meta- & para-Xylene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
ortho-Xylene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Total Xylenes	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Sum of BTEX	*0.2*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Naphthalene	*1*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
TRH C6 - C10	*10*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
TRH >C10 - C16	*50*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
TRH >C16 - C34	*100*	nd	nd	-	nd	190	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
TRH >C34 - C40	*100*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Sum PAHs	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	nd	1.2	-	nd	nd	-
Heptachlor	*0.2*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Total Chlordane (sum)	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Endrin	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Endosulfan (sum)	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Methoxychlor	*0.2*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Sum of Aldrin + Dieldrin	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Sum of DDD + DDE + DDT	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Chloropyrifos	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
PCBs	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Phenols	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-	nd	nd	-	nd	nd	-
Data Quality Indicator		-	-	***<50%***	**-**	**-**	***<50%***	-	-	***<50%***	-	**-**	***<50%***	-	-	***<50%***	-	**-**	***<50%***

Table 10: Soil Analytical Summary - Quality Control (mg/kg)

Analyte	LOR mg/kg	TPB15_0.0-0.1	QS07	**RPD**	TPB15_0.0-0.1	QS08	**RPD**	TPB25_0.0-0.1	QS09	**RPD**	TPB25_0.0-0.1	QS10	**RPD**	TPB39_0.0-0.1	QS11	**RPD**	TPB39_0.0-0.1	QS12	**RPD**	TPC03_0.0-0.1	QS13	**RPD**	TPC03_0.0-0.1	QS14	**RPD**
Type	-	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%
Date	-	*21/06/22*	*21/06/22*	-	*21/06/22*	*21/06/22*	-	*22/06/22*	*22/06/22*	-	*22/06/22*	*22/06/22*	-	*24/11/21*	*24/11/21*	-	*24/11/21*	*24/11/21*	-	*22/06/22*	*22/06/22*	-	*22/06/22*	*22/06/22*	-
Media	*Soil*	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-
Heavy Metals																									
Arsenic	*5*	170	182	7	170	120	34	128	126	2	128	100	25	18	10	**57**	18	11	48	19	14	30	19	14	30
Cadmium	*1*	2	2	0	2	2	18	14	16	13	14	14	0	nd	nd	-	nd	0.5	-	nd	nd	-	nd	nd	-
Chromium	*2*	26	27	4	26	21	21	36	34	6	36	38	5	64	38	**51**	64	44	37	124	92	30	124	87	35
Copper	*5*	1120	1550	32	1120	1100	2	558	634	13	558	550	1	69	48	36	69	44	44	24	20	18	24	17	34
Lead	*5*	14400	18700	26	14400	30000	**70**	4120	4700	13	4120	3300	22	284	217	27	284	160	**56**	50	90	**57**	50	27	**60**
Nickel	*2*	21	19	10	21	30	35	38	39	3	38	66	**54**	19	17	11	19	46	**83**	16	14	13	16	47	**98**
Zinc	*5*	1220	1270	4	1220	1600	27	3540	3770	6	3540	2600	31	235	192	20	235	130	**58**	17	13	27	17	33	**64**
Mercury	*0.1*	2.6	2.4	8	2.6	1.7	42	0.8	0.9	12	0.8	0.8	0	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	**-**
Organics																									
Benzene	*0.2*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl benzene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
meta- & para-Xylene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ortho-Xylene	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	*0.5*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of BTEX	*0.2*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	*1*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRH C6 - C10	*10*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRH >C10 - C16	*50*	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRH >C16 - C34	*100*	380	500	27	380	550	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRH >C34 - C40	*100*	140	160	13	140	180	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum PAHs	*0.5*	2	2	0	2	nd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	*0.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Chlordane (sum)	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan (sum)	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	*0.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of Aldrin + Dieldrin	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of DDD + DDE + DDT	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloropyrifos	*0.05*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data Quality Indicator		-	-	*<50%*	-	-	***<50%***	-	-	*<50%*	-	-	***<50%***	-	-	***<50%***	-	-	***<50%***	-	-	***<50%***	-	-	***<50%***

Table 11: Soil Analytical Summary - Quality Control (mg/kg)

Analyte	LOR mg/kg	TPB45_0.0-0.1	QS17	**RPD**	TPB45_0.0-0.1	QS18	**RPD**	BHD04_0.0-0.1	QS19	**RPD**	BHD04_0.0-0.1	QS20	**RPD**	Trip Blank	Trip Spike	Trip Spike Control	Trip Spike	Trip Blank	Trip Spike	Trip Spike Control	Trip Spike	RB1
Type	-	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%	*Primary*	*Intralab Duplicate*	%	*Primary*	*Interlab Duplicate*	%	*Lab prep*	*Field*	*Lab*	*Recovery*	*Lab prep*	*Field*	*Lab*	*Recovery*	*Rinsate Blank*
Date	-	*23/06/22*	*23/06/22*	-	*23/06/22*	*23/06/22*	-	*23/06/22*	*23/06/22*	-	*23/06/22*	*23/06/22*	-	*16/06/22*	*16/06/22*	*23/06/22*	-	*27/06/22*	*27/06/22*	*27/06/22*	-	*23/06/22*
Media	*Soil*	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	-	*Soil*	*Soil*	*Soil*	-	*Soil*	*Soil*	*Soil*	-	-
Heavy Metals																						
Arsenic	*5*	147	130	12	147	89	49	nd	nd	-	nd	5	-	-	-	-	-	-	-	-	-	nd
Cadmium	*1*	nd	nd	-	nd	0.7	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
Chromium	*2*	27	19	35	27	20	30	11	14	24	11	17	43	-	-	-	-	-	-	-	-	nd
Copper	*5*	375	395	5	375	240	44	8	7	13	8	8	4	-	-	-	-	-	-	-	-	nd
Lead	*5*	3410	3620	6	3410	2600	27	15	19	24	15	17	13	-	-	-	-	-	-	-	-	nd
Nickel	*2*	10	9	11	10	47	**130**	4	4	0	4	47	**169**	-	-	-	-	-	-	-	-	nd
Zinc	*5*	349	401	14	349	250	33	25	21	17	25	42	**51**	-	-	-	-	-	-	-	-	nd
Mercury	*0.1*	0.6	0.6	-	0.6	0.4	40	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
Organics																						
Benzene	*0.2*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	nd	-	nd	nd	nd	-	nd
Toluene	*0.5*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	6.0	6.5	92	nd	6.4	7.4	86	nd
Ethyl benzene	*0.5*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	1.8	1.9	95	nd	1.8	2.3	78	nd
meta- & para-Xylene	*0.5*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	9.7	10.4	93	nd	9.4	11.8	80	nd
ortho-Xylene	*0.5*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	4.5	4.8	94	nd	4.5	5.4	83	nd
Sum of BTEX	*0.2*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	22	23.6	93	nd	22.1	26.9	82	nd
Naphthalene	*1*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	nd	-	nd	nd	nd	-	nd
TRH C6 - C10	*10*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	nd	-	-	-	nd	-	-	-	nd
TRH >C10 - C16	*50*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
TRH >C16 - C34	*100*	250	150	**50**	250	210	17	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
TRH >C34 - C40	*100*	100	nd	-	100	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
Sum PAHs	*0.5*	2	nd	-	2	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	nd
Heptachlor	*0.2*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Total Chlordane (sum)	*0.1*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Endrin	*0.05*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Endosulfan (sum)	*0.05*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Methoxychlor	*0.2*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Sum of Aldrin + Dieldrin	*0.05*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Sum of DDD + DDE + DDT	*0.05*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Chloropyrifos	*0.05*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
PCBs	*0.1*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Phenols	*0.1*	nd	nd	-	nd	nd	-	nd	nd	-	nd	nd	-	-	-	-	-	-	-	-	-	-
Data Quality Indicator		-	-	***<50%***	-	**-**	***<50%***	-	-	*<50%*	-	-	***<50%***	-	-	**-**	*70-130%*	-	**-**	**-**	*70-130%*	**-**

Soil Analytical Summary Table Notes

LOR denotes limit of reporting (standard LOR unless otherwise shown)

nd denotes not detected above the LOR

NL denotes non-limiting

- denotes not analysed/not available

Bold - Exceeds landuse criteria

RPD denotes relative percent difference

^ denotes raised LOR

TRH C_6-C_{10} F1 = TRH C_6-C_{10} minus BTEX compounds

HSL for VI = Health Screening Levels for Vapour Intrusion

Management limits = Petroleum hydrocarbon management limits (ASC NEPM (2013))

HSLs for direct contact = CRC CARE (2011)

ESL = Ecological Screening Levels

EIL = Ecological Investigation Levels (ASC NEPM (2013))

*analyte list shown on laboratory report

1. Methyl mercury / inorganic mercury

Table 12: Groundwater Monitoring Well Construction Details

Well ID	Date of Installation	Top of Well Casing Elevation (m AHD)	Bottom of Well Depth (m)	Top of Well Screen (m)	Bottom of Well Screen (m)	Location (MGA)		Initial Water Strike	Initial Groundwater level	Lithology of screened selection
						Easting	Northing			
MW01	29/06/22	635.560	8.000	4.000	8.000	748392.990	6149768.290	5.500	5.600	Siltstone
MW02	29/06/22	635.020	8.000	4.000	8.000	748426.340	6149825.850	5.000	5.500	Siltstone
MW03	28/06/22	633.635	6.000	2.000	6.000	748418.490	6149791.070	4.000	4.100	Siltstone
MW04	28/06/22	633.725	7.000	2.000	7.000	748414.950	6149730.790	4.000	3.900	Silty Clay
MW05	29/06/22	635.095	6.000	2.000	6.000	748230.860	6149346.740	4.000	4.100	Silty Clay
MW06	29/06/22	636.310	7.000	2.000	7.000	748157.860	6149193.960	5.000	5.000	Silty Clay

m AHD: metres Australian Height Datum
MGA: Map Grid of Australia

Table 13: Groundwater Gauging Data

Well ID	Gauging Date	TOC Elevation (mAHD)	Depth of Well (mbTOC)	Depth to NAPL (mbTOC)	Depth to Water (mbTOC)	NAPL Thickness (m)	Corrected Depth to Water (m)	Water Elevation (mAHD)
MW01	30/06/22	635.560	8.025	-	5.710	-	-	629.850
MW02	30/06/22	635.020	8.010	-	5.235	-	-	629.785
MW03	29/06/22	633.635	5.995	-	3.755	-	-	629.880
MW04	29/06/22	633.725	6.975	-	3.770	-	-	629.955
MW05	30/06/22	635.095	6.090	-	4.340	-	-	630.755
MW06	30/06/22	636.310	7.140	-	5.195	-	-	631.115

m AHD: metres Australian Height Datum
mbTOC: metres below top of casing
NAPL: non-aqueous phase liquid

Table 14: Groundwater Quality Parameters

Location ID	Date Sampled	DO (mg/L)	EC (µScm-¹)	Salinity (ppm)	Salinity (‰)	pH	Eh (mV)	Temperature (ºC)	Purge Volume (L)	Comments
Groundwater										
MW01	30/06/22	2.75	975	624	0.624	7.11	167.9	19.80	2.5	Clear, moderate hydrocarbon odour / sheen
MW02	30/06/22	3.32	1043	668	0.668	8.13	188.9	16.10	2.5	Clear, no odour or sheen.
MW03	29/06/22	3.65	1547	990	0.990	7.41	160.7	16.79	2.5	Slightly cloudy, slight sheen and hydrocarbon odour
MW04	29/06/22	3.46	1560	998	0.998	7.71	158.6	15.48	2.5	Slightly cloudy becoming clear, no odour or sheen
MW05	30/06/22	6.87	500	320	0.320	8.22	191.4	14.23	2.5	Slightly cloudy becoming clear, no odour or sheen
MW06	30/06/22	6.57	3398	2,175	2.175	7.62	207.5	14.60	2.5	Slightly cloudy becoming clear, no odour or sheen

Table 15: Groundwater Analytical Summary - TRH & BTEXN (µg/L)

Monitoring well / sample location	Laboratory sample identification	Date sampled	BTEXN					TRH				
			Benzene	Toluene	Ethyl benzene	Xylenes	Naphthalene	F1>C_6 - C_{10} TRH	F2 >C_{10} - C_{16} TRH	F3 >C_{16} - C_{34} TRH	F4 >C_{34} - C_{40} TRH	>C_{10} - C_{40} TRH
LOR			*1*	*2*	*2*	*2*	*2*	*20*	*100*	*100*	*100*	*100*
Analytical - Groundwater												
MW01	MW01	30/06/22	**3**	nd	16	nd	15	1,190	480	nd	nd	500
MW02	MW02	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	MW03	29/06/22	**138**	6	20	nd	82	710	800	300	nd	1,800
MW04	MW04	29/06/22	nd	3	nd	nd	nd	nd	nd	nd	nd	nd
MW05	MW05	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW06	MW06	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Criteria - Freshwater												
ANZG (2018) 95% Level of Species Protection			950	180	80	75	16	-	-	-	-	-
GILs Drinking Water			**1**	800	300	600	-	-	-	-	-	-
HSL D 2 m to < 4 m (Sand)			5,000	NL	NL	NL	NL	6,000	NL	-	-	-
HSL D 4 m to < 8 m (Sand)			5,000	NL	NL	NL	NL	6,000	NL	-	-	-
HSL D > 8 m (Sand)			5,000	NL	NL	NL	NL	7,000	NL	-	-	-
HSL D Intrusive Maintenance Worker 2 m to < 4m (Sand)			NL	NL	NL	NL	NL	NL	NL	-	-	-
HSL D Intrusive Maintenance Worker 4 m to < 8 m (Sand)			NL	NL	NL	NL	NL	NL	NL	-	-	-
HSL D Intrusive Maintenance Worker > 8 m (Sand)			NL	NL	NL	NL	NL	NL	NL	-	-	-

Table 16: Groundwater Analytical Summary - Heavy Metals (µg/L)

Monitoring well / sample location	Laboratory sample identification	Date / time sampled	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury
LOR			*1*	*0.1*	*1*	*1*	*1*	*1*	*5*	*0.1*
Analytical - Groundwater										
MW01	MW01	30/06/22	2	nd	nd	nd	5	7	12	nd
MW02	MW02	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd
MW03	MW03	29/06/22	nd	nd	nd	nd	nd	4	nd	nd
MW04	MW04	29/06/22	nd	nd	nd	nd	nd	8	nd	nd
MW05	MW05	30/06/22	1	nd	2	1	nd	nd	nd	nd
MW06	MW06	30/06/22	nd	nd	3	nd	nd	nd	18	nd
Criteria - Freshwater										
ANZG (2018) 95% Level of Species Protection			24/13**	0.2	1*	1.4	3.4	11	8	0.06***
GILs Drinking Water			10	2	50	2,000	10	20	-	1

Table 17: Groundwater Analytical Summary - PAHs (µg/L)

Monitoring well / sample location	Laboratory sample identification	Date / time sampled	PAHs																	
			Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Total PAHs	B(a)P TEQ
LOR			*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0.5*	*1*	*1*	*1*	*0.5*	*0.5*
Analytical - Groundwater																				
MW01	MW01	30/06/22	6.2	nd	nd	2.2	2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	10.4	nd
MW02	MW02	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW03	MW03	29/06/22	30.1	nd	nd	1.6	1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	32.7	nd
MW04	MW04	29/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW05	MW05	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW06	MW06	30/06/22	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Criteria - Freshwater																				
ANZG (2018) 95% Level of Species Protection - Freshwater			16	-	-	-	0.6***	0.01***	-	-	-	-	-	-	0.1***	-	-	-	-	-
GILs Drinking Water			-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-

Table 18: Groundwater Analytical Summary - Quality Control (µg/L)

Analyte	LOR ug/L	MW03	QW01	**RPD**	QW02	**RPD**	Trip Blank	Trip Spike	Trip Spike Control	Trip Spike	RB2
Type	-	*Primary*	*Intra-Laboratory Duplicate*	*%*	*Inter-Laboratory Duplicate of MW03*	*%*	*Lab prep*	*Lab prep*	*Lab*	*Recovery*	*Rinsate Blank*
Date	-	*29/06/22*	*29/06/22*	-	*29/06/22*	-	*27/06/22*	*27/06/22*	*27/06/22*	-	*30/06/22*
Metals											
Arsenic	*1*	nd	1	-	2	-	-	-	-	-	nd
Cadmium	*0.1*	nd	nd	-	nd	-	-	-	-	-	nd
Chromium	*1*	nd	nd	-	nd	-	-	-	-	-	nd
Copper	*1*	nd	nd	-	1	-	-	-	-	-	nd
Lead	*1*	nd	nd	-	nd	-	-	-	-	-	nd
Nickel	*1*	4	3	29	3	29	-	-	-	-	nd
Zinc	*5*	nd	nd	-	nd	-	-	-	-	-	nd
Mercury	*0.1*	nd	nd	-	nd	-	-	-	-	-	nd
BTEXN											
Benzene	*1*	138	137	1	120	14	nd	17	20	85	nd
Toluene	*2*	6	7	15	8	29	nd	16	20	80	nd
Ethylbenzene	*2*	20	20	0	20	0	nd	16	20	80	nd
meta- & para-Xylene	*2*	nd	nd	-	nd	-	nd	16	20	80	nd
ortho-Xylene	*2*	nd	nd	-	1	-	nd	17	20	85	nd
Sum of BTEX	*1*	164	164	0	149	10	nd	-	-	-	nd
Naphthalene	*5*	82	84	2	nd	-	nd	17	20	85	nd
C6 - C9 Fraction	*20*	910	910	0	nd	-	nd	-	-	-	nd
C6 - C10 Fraction minus BTEX (F1)	*20*	710	720	1	840	17	nd	-	-	-	nd
>C10 - C16 Fraction minus Naphthalene (F2)	*100*	800	770	4	950	17	-	-	-	-	nd
>C16 - C34 Fraction	*100*	120	nd	-	300	**86**	-	-	-	-	nd
>C34 - C40 Fraction	*100*	nd	nd	-	100	-	-	-	-	-	nd
>C10 - C40 Fraction (sum)	*100*	1000	850	16	1800	**57**	-	-	-	-	nd
Total PAHs	*0.5*	32.7	31.3	4	nd	-	-	-	-	-	nd
Data Quality Indicator	-	-	-	*<50%*	-	***<50%***	-	-	-	*70-130%*	-

Groundwater Analytical Summary Table Notes

LOR - limit of reporting (standard LOR unless otherwise shown)

nd - not detected above the LOR

Bold, underline or *italic* indicates exceedance of criteria

^ - LOR raised

- denotes not analysed/not available

NL - Not limiting

*- Chromium criteria as Cr(VI)

** - Low reliability trigger value, used as interim working level only.

*** - Bioaccumulative, therefore a higher protection level has been adopted. For example, a PC95 will be increased to PC99, a PC80 will be increased to PC90.

Health Screening Levels (HSLs) for vapour intrusion in a clay geology has been derived based on field observations.

HSL D - Commercial/industrial

GILs Drinking Water - National Health and Medical Research Council (NHMRC) (2011) Australian Drinking Water Guidelines (Updated August 2018) (NHMRC (2011) ADWG)

ANZG (2018) - Australian and New Zealand Guidelines for Fresh and Marine Water Quality (http://www.waterquality.gov.au/anz-guidelines as accessed 11 April 2022) (ANZG 2018)

Appendix A

Historical Investigation Data

Table 1: Historical Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
Soil Analytical - Preliminary Site Investigation (Cavvanba, 2021)										
BH01	0.0-0.05	6	nd	12	17	38	-	4	69	nd
BH02	0.0-0.05	215	2	29	198	1,390	-	13	712	0.2
BH03	0.0-0.05	133	4	47	1,120	**5,800**	-	15	1,440	1.4
BH04	0.0-0.05	8	nd	28	37	181	-	9	224	nd
BH05	0.2-0.3	164	8	16	1,730	**1,870**	-	12	1,740	0.1
BH06	0.0-0.05	34	4	33	288	**2,590**	-	16	1,680	0.2
BH07	0.0-0.05	28	nd	24	54	117	-	9	212	0.1
BH08	0.0-0.05	144	62	53	5,420	**13,100**	-	57	8,980	1.8
BH09	0.0-0.05	85	18	44	1,200	**3,670**	-	81	3,580	0.6
BH10	0.0-0.05	88	4	22	390	**2,260**	-	13	991	0.3
BH11	0.0-0.05	60	14	22	254	**1,980**	-	21	3,160	0.4
BH12	0.0-0.05	162	90	37	2,080	**6,950**	-	20	3,040	6.6
BH13	0.0-0.05	48	10	76	480	1,210	-	33	1,270	0.2
BH14	0.0-0.05	8	1	23	104	249	-	12	394	0.1
BH15	0.0-0.05	55	9	45	685	**2,880**	-	26	830	0.5
BH16	0.0-0.05	8	2	39	80	378	-	19	712	nd
BH17	0.0-0.05	181	4	24	470	**1,510**	-	24	1,190	0.2
BH18	0.0-0.05	13	nd	101	25	41	-	12	38	nd
BH19	0.0-0.05	16	nd	42	40	67	-	7	85	nd
BH20	0.0-0.05	24	1	22	127	388	-	12	325	0.3
Soil Analytical - Environmental Site Assessment (Cavvanba, 2021)										
TP01	0-0.1	45	nd	8	16	**1,620**	-	nd	44	0.2
TP01	0.3-0.4	11	nd	32	20	45	-	8	25	nd
TP01	0.5-0.6	78	nd	18	10	13	-	4	13	nd
TP02	0-0.1	69	nd	14	34	120	-	5	221	0.1
TP02	0.3-0.4	36	nd	24	9	22	-	4	28	nd
TP02	0.7-0.8	10	nd	44	29	14	-	24	42	nd
TP03	0-0.1	15	nd	18	33	1,340	-	5	98	0.1
TP03	0.3-0.4	13	nd	40	19	240	-	8	46	0.1
TP04	0-0.1	100	3	17	211	598	-	13	937	0.1
TP04	0.2-0.3	10	3	3	26	66	-	10	1,520	nd
TP04	0.4-0.5	17	nd	29	23	656	-	8	262	0.1
TP05	0-0.1	71	3	14	256	993	-	14	942	0.2
TP05	0.2-0.3	23	nd	5	38	72	-	13	284	0.2
TP05	0.6-0.7	16	nd	31	26	466	-	7	125	0.2
TP06	0-0.1	78	nd	9	353	144	-	20	251	nd
TP06	0.2-0.3	36	nd	12	72	632	-	6	266	0.4
TP06	0.6-0.7	nd	nd	9	11	19	-	4	31	0.1
TP07	0-0.1	144	4	11	522	**2,580**	-	11	1,330	0.5
TP07	0.2-0.3	117	3	7	218	974	-	10	1,380	0.2
TP07	0.5-0.6	nd	nd	9	6	6	-	2	259	nd
TP08	0-0.1	74	3	17	174	971	-	9	924	0.3
TP08	0.3-0.4	nd	nd	17	11	18	-	6	16	nd
TP08	0.6-0.7	nd	nd	18	8	19	-	5	138	nd
TP09	0.05-0.15	17	nd	6	43	211	-	4	301	nd
TP09	0.2-0.3	88	6	18	285	1,210	-	15	1,590	0.3
TP09	0.6-0.7	9	nd	20	16	37	-	3	413	nd
TP10	0.05-0.15	60	3	8	223	1,140	-	9	1,140	0.2
TP10	0.4-0.5	127	9	5	147	534	-	7	1,410	0.1
TP10	0.8-0.9	nd	nd	6	6	6	-	4	389	nd
TP11	0.05-0.15	84	4	14	475	**2,530**	-	11	952	0.4
TP11	0.2-0.3	99	3	3	249	105	-	10	1,920	nd
TP11	0.5-0.6	67	nd	8	18	22	-	10	916	nd
TP12	0.05-0.15	98	6	18	523	**2,300**	-	10	1,180	0.3
TP12	0.2-0.3	172	9	6	283	833	-	10	1,110	0.2
TP12	0.5-0.6	nd	1	5	7	7	-	3	877	nd
TP13	0-0.1	147	3	24	392	**2,240**	-	8	964	0.3
TP13	0.2-0.3	213	7	7	740	**4,100**	-	8	1,750	1.0
TP13	0.4-0.5	nd	nd	13	13	12	-	8	6	nd
TP14	0-0.1	184	8	20	748	**4,350**	-	10	1,120	0.7
TP14	0.2-0.3	189	10	6	213	807	-	8	1,090	0.2
TP14	0.5-0.6	nd	nd	12	10	10	-	5	7	nd
TP15	0.1-0.2	171	6	12	765	**7,910**	-	12	1,440	2.7
TP15	0.6-0.7	nd	nd	12	9	22	-	4	182	nd
TP16	0.2-0.3	52	5	19	533	**2,980**	-	8	880	0.5
TP16	0.3-0.4	62	nd	10	220	**1,720**	-	4	242	0.5

Table 1: Historical Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
TP16	0.5-0.6	nd	2	14	63	39	-	4	1,060	nd
TP17	0.1-0.2	47	4	11	1,370	**8,440**	-	7	1,140	0.4
TP17	0.2-0.3	301	5	7	571	**1,990**	-	4	435	0.3
TP17	0.5-0.6	nd	4	6	6	10	-	5	2,030	nd
TP18	0.2-0.3	78	8	15	797	**5,750**	-	10	1,970	0.6
TP18	0.3-0.4	971	11	4	177	183	-	4	94	0.2
TP18	0.6-0.7	nd	4	9	21	17	-	7	998	nd
TP19	0.2-0.3	96	13	18	1,130	**5,400**	-	36	1,900	1.3
TP19	0.3-0.4	113	nd	nd	163	418	-	9	100	nd
TP19	0.6-0.7	5	2	8	161	196	-	8	719	nd
TP20	0.1-0.2	366	51	38	1,970	**13,200**	-	27	10,900	1.1
TP20	0.2-0.3	246	22	15	708	**4,430**	-	15	1,800	0.7
TP20	0.5-0.6	nd	1	28	9	12	-	6	620	nd
TP21	0.2-0.3	558	nd	141	5,510	**44,000**	-	90	2,220	2.2
TP21	0.3-0.4	204	nd	20	1,560	**34,000**	-	14	1,840	6.9
TP21	0.5-0.6	14	2	24	177	466	-	9	854	0.1
TP22	0.2-0.3	90	21	28	840	**4,720**	-	27	4,630	1.2
TP22	0.3-0.4	367	1	36	400	313	-	21	639	0.1
TP22	0.6-0.7	7	1	41	21	40	-	10	752	nd
TP23	0.2-0.3	87	19	41	1,530	**5,620**	-	56	4,550	1.0
TP23	0.4-0.5	254	31	7	330	302	-	19	1,740	0.1
TP23	0.5-0.6	nd	nd	22	12	14	-	8	526	nd
TP24	0.2-0.3	139	16	48	960	**3,700**	-	135	4,380	0.7
TP24	0.3-0.4	206	20	5	111	431	-	11	2,390	nd
TP24	0.5-0.6	nd	nd	13	8	9	-	6	81	nd
TP25	0.1-0.2	60	5	17	1,150	**4,290**	-	19	1,450	0.8
TP25	0.7-0.8	15	nd	35	22	16	-	10	1,110	nd
TP26	0.1-0.2	62	10	30	696	**3,350**	-	34	2,790	0.4
TP26	0.3-0.4	120	5	16	147	837	-	18	2,040	0.2
TP26	0.5-0.6	nd	nd	16	16	9	-	7	12	0.1
TP27	0-0.1	50	21	58	1,570	**2,800**	-	61	5,200	0.5
TP27	0.2-0.3	61	10	15	808	**4,470**	-	33	2,400	0.9
TP27	0.5-0.6	nd	1	25	7	10	-	3	479	nd
TP28	0-0.1	52	10	69	709	**3,490**	-	64	2,170	0.5
TP28	0.2-0.3	289	13	5	197	424	-	11	809	nd
TP28	0.5-0.6	8	4	25	31	23	-	6	594	nd
TP29	0.05-0.15	116	6	22	688	**2,590**	-	19	1,990	0.4
TP29	0.2-0.3	101	2	14	920	**4,900**	-	11	791	0.7
TP29	0.5-0.6	nd	2	29	26	60	-	8	630	nd
TP30	0.05-0.15	45	5	59	413	1,200	-	74	1,040	0.2
TP30	0.2-0.3	16	8	3	145	925	-	11	896	0.1
TP30	0.9-1.0	30	nd	13	38	46	-	6	712	nd
TP31	0-0.1	155	9	25	538	**1,970**	-	33	2,130	0.5
TP31	0.2-0.3	176	nd	11	80	42	-	9	1,980	0.1
TP31	0.5-0.6	nd	nd	29	9	16	-	4	7	nd
TP32	0-0.1	55	7	56	467	1,200	-	59	1,600	0.2
TP32	0.2-0.3	125	3	3	61	60	-	12	406	nd
TP32	0.8-0.9	nd	nd	16	6	16	-	2	176	nd
TP33	0.05-0.15	60	4	31	292	1,340	-	28	995	0.4
TP33	0.2-0.3	256	11	6	102	289	-	12	1,010	0.4
TP33	0.5-0.6	26	nd	26	13	32	-	10	584	nd
TP34	0-0.1	74	6	35	498	**3,090**	-	25	1,680	0.1
TP34	0.1-0.2	65	6	3	608	**2,480**	-	8	1,370	0.1
TP34	0.4-0.5	10	2	46	25	15	-	20	1,780	nd
TP35	0-0.1	432	1	25	616	**25,500**	-	6	1,200	2.2
TP35	0.2-0.3	287	3	18	184	376	-	7	348	nd
TP35	0.4-0.5	37	2	75	34	23	-	13	1,290	nd
TP36	0-0.1	133	1	6	323	**2,710**	-	6	400	0.5
TP36	0.2-0.3	136	6	5	148	54	-	8	535	nd
TP36	0.4-0.5	13	3	63	47	14	-	13	1,620	nd
TP37	0-0.1	10	nd	20	101	279	-	13	186	nd
TP37	0.2-0.3	97	8	6	155	440	-	12	517	nd
TP37	0.5-0.6	32	3	52	50	44	-	9	430	nd
TP38	0-0.1	501	1	23	467	**2,620**	-	11	376	0.7
TP38	0.4-0.5	94	4	4	1,740	677	-	5	239	0.1
TP38	0.9-1.0	nd	2	41	64	14	-	4	190	nd
TP39	0-0.1	260	4	7	1,810	140	-	8	200	nd
TP39	0.3-0.4	26	nd	49	292	49	-	9	196	nd

Table 1: Historical Soil Analytical Summary - Heavy Metals (mg/kg)

Samples analysed	Depth (m)	Arsenic	Cadmium	Chromium	Copper	Lead	Lead (XRF)	Nickel	Zinc	Mercury
LOR		*5*	*1*	*2*	*5*	*5*	-	*2*	*5*	*0.1*
TP39	0.5-0.6	nd	nd	31	293	18	-	9	291	nd
BH40	0-0.1	192	2	30	85	304	-	11	318	0.2
BH40	0.2-0.3	383	2	25	302	**2,690**	-	12	578	0.5
BH41	0-0.1	138	13	14	188	967	-	15	1,860	0.2
BH41	0.3-0.4	38	2	21	32	64	-	12	1,190	nd
BH42	0-0.1	105	7	18	298	1,070	-	12	975	0.2
BH42	0.2-0.3	203	4	17	90	116	-	11	798	nd
BH42	0.4-0.5	147	1	19	37	57	-	14	764	nd
BH43	0-0.1	6	nd	14	33	39	-	6	104	nd
BH43	0.2-0.3	nd	nd	14	9	14	-	4	21	nd
BH44	0-0.1	16	nd	14	37	60	-	6	84	nd
BH44	0.2-0.3	27	nd	15	20	46	-	6	59	nd
BH45	0-0.1	21	1	19	54	135	-	14	263	nd
BH45	0.4-0.5	9	nd	16	27	27	-	12	48	nd
BH46	0-0.1	6	nd	19	26	24	-	10	41	nd
BH46	0.2-0.3	nd	nd	28	12	11	-	10	12	nd
BH47	0-0.1	149	3	23	288	1,130	-	11	432	0.5
BH47	0.5-0.6	nd	nd	20	48	31	-	8	32	nd
BH48	0-0.1	141	8	17	219	999	-	14	822	0.4
BH48	0.3-0.4	58	1	40	46	147	-	16	286	nd
BH49	0-0.1	39	nd	36	49	107	-	13	140	nd
BH49	0.2-0.3	27	nd	41	11	14	-	9	11	nd
Statistics										
Samples analysed		155	155	155	155	155	0	155	155	136
Detects		130	100	154	155	155	0	154	155	85
% detect		84%	65%	99%	100%	100%	#DIV/0!	99%	100%	63%
Maximum		971	90	141	5510	**44000**	**0**	135	10900	7
Mean		109	8	24	387	1975	#DIV/0!	15	1057	1
Median		73	4	18	147	376	#NUM!	10	752	0
Minimum		5	1	3	6	6	0	2	6	0
Total Exceedance of HILs		0	0	0	2	24	0	0	9	0
Total Exceedance of EILs		28	0	0	75	89	0	0	124	0
Criteria										
HILs - Commercial / Industrial D		3,000	900	3,600	240,000	**1,500**	**1,500**	6,000	400,000	730/180
EILs - Commercial and Industrial (Aged)		160	-	670	300	1,800	1,800	290	700	-

Table 2: Historical Soil Analytical Summary - TRH and BTEXN (mg/kg)

Sample	Depth (m)	Benzene	Toluene	Ethyl benzene	meta- & para-Xylenes	ortho-Xylene	Naphthalene	F1 TRH C_6 - C_{10}	F2 TRH >C_{10} - C_{16}	F3 TRH >C_{16} - C_{34}	F4 TRH >C_{34} - C_{40}
LOR		*0.2*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*10*	*50*	*100*	*100*
Soil Analytical - Preliminary Site Investigation (Cavvanba, 2021)											
BH01	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH02	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH03	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	480
BH04	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH05	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	490
BH06	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH07	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH08	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	900
BH09	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	240
BH10	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH11	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	160
BH12	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH13	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH14	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH15	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	190
BH16	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH17	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH18	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH19	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	360
BH20	0.0-0.05	nd	0.8	nd	2.4	0.9	nd	nd	nd	nd	1590
Soil Analytical - Environmental Site Assessment (Cavvanba, 2021)											
TP01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP04	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP05	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP07	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	160	nd
TP09	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP10	0.4-0.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP11	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP12	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP13	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	320	110
TP14	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	140	nd
TP15	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	1,170	480
TP16	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	130	nd
TP17	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	190	130
TP18	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	750	400
TP19	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	570	320
TP20	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	250	130

Table 2: Historical Soil Analytical Summary - TRH and BTEXN (mg/kg)

Sample	Depth (m)	Benzene	Toluene	Ethyl benzene	meta- & para-Xylenes	ortho-Xylene	Naphthalene	F1 TRH C_6 - C_{10}	F2 TRH >C_{10} - C_{16}	F3 TRH >C_{16} - C_{34}	F4 TRH >C_{34} - C_{40}
LOR		*0.2*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*10*	*50*	*100*	*100*
TP21	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	790	350
TP22	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	470	280
TP23	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	70	2,110	750
TP24	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	190	130
TP25	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	120	nd
TP26	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	180	240
TP27	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	260	170
TP28	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	240	150
TP29	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	220	120
TP30	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	260	170
TP31	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP32	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP33	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP34	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP35	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP36	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	110	nd
TP37	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	110	nd
TP38	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP39	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH40	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH41	0.3-0.4	nd	nd	3	4	nd	3	**683**	*2,960*	2,820	nd
BH42	0.4-0.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH43	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH44	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH45	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH46	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH48	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Statistics											
Samples analysed		67	67	67	67	67	67	67	67	67	67
Detects		0	1	1	2	1	1	1	2	22	23
% detect		0%	1%	1%	3%	1%	1%	1%	3%	33%	34%
Maximum		<0.2	1	3	4	1	3	**683**	*2,960*	2,820	1,590
Mean		<0.2	1	3	3	1	3	683	1515	525	363
Median		<0.2	1	3	3	1	3	683	1515	245	240
Minimum		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	<100	<100
Criteria - Commercial / Industrial (Sand)											
HSL D - 0 m to < 1 m		3	NL	NL	NL		NL	**260**	NL	NL	NL
HILs - Commercial / Industrial D		-	-	-	-	-	-	-	-	-	-
Ecological - Commercial / Industrial (Aged)		75	135	165	180		370	215	170	1,700	3,300
Management Limits - Commercial and Industrial		-	-	-	-		-	700	*1,000*	3,500	10,000
HSL D - Direct Contact		430	99,000	27,000	81,000		-	26,000	20,000	27,000	38,000
Intrusive Maintenance Worker - Direct Contact		1,100	120,000	85,000	130,000		29,000	82,000	62,000	85,000	120,000
Intrusive Maintenance Worker - Shallow Trench - 0 m to < 2 m		350	NL	NL	NL		NL	NL	NL	NL	NL

Table 3: Historical Soil Analytical Summary - PAHs & Phenols (mg/kg)

Sample	Depth (m)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Total PAHs	B(a)P TEQ	Phenol	Pentachlorophenol
LORs		*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*2*
Soil Analytical - Preliminary Site Investigation (Cavvanba, 2021)																					
BH01	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH02	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH03	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH04	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH05	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH06	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH07	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH08	0.0-0.05	nd	nd	nd	nd	0.9	nd	1.9	1.8	0.7	1.2	1.5	nd	0.8	nd	nd	0.6	9.4	1	-	-
BH09	0.0-0.05	nd	nd	nd	nd	nd	nd	0.7	0.7	nd	nd	nd	nd	nd	nd	nd	nd	1.4	nd	-	-
BH10	0.0-0.05	nd	nd	nd	nd	nd	nd	0.6	0.5	nd	nd	nd	nd	nd	nd	nd	nd	1.1	nd	nd	nd
BH11	0.0-0.05	nd	nd	nd	nd	nd	nd	0.7	0.8	nd	nd	nd	nd	nd	nd	nd	nd	2	nd	-	-
BH12	0.0-0.05	nd	nd	nd	nd	1	nd	1.8	1.6	0.7	0.7	0.9	nd	0.6	nd	nd	nd	7.3	0.8	nd	nd
BH13	0.0-0.05	nd	nd	nd	nd	nd	nd	0.6	0.8	nd	nd	0.6	nd	0.5	nd	nd	nd	2.5	0.6	nd	nd
BH14	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH15	0.0-0.05	nd	nd	nd	nd	nd	nd	1.7	2	0.9	1.1	1.5	nd	1.1	0.5	nd	0.6	10	1.4	-	-
BH16	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH17	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH18	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH19	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH20	0.0-0.05	0.7	nd	nd	nd	0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.3	nd	nd	nd
Soil Analytical - Environmental Site Assessment (Cavvanba, 2021)																					
TP01	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP03	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP04	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP05	0.2-0.3	nd	nd	nd	nd	0.7	nd	1.1	1	nd	nd	nd	nd	nd	nd	nd	nd	2.8	nd	-	-
TP06	0-0.1	nd	nd	nd	nd	nd	nd	0.6	0.7	nd	nd	nd	nd	nd	nd	nd	nd	1.3	nd	nd	nd
TP07	0.2-0.3	nd	nd	nd	nd	nd	nd	0.6	0.6	nd	nd	nd	nd	nd	nd	nd	nd	1.2	nd	-	-
TP08	0-0.1	nd	nd	nd	nd	0.6	nd	1.1	1.1	0.6	0.6	0.8	nd	0.6	nd	nd	nd	5.4	0.7	nd	nd
TP09	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP10	0.4-0.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP11	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP12	0.2-0.3	1	nd	nd	nd	0.7	nd	0.5	nd	nd	nd	0.6	nd	nd	nd	nd	nd	2.8	nd	nd	nd
TP13	0.2-0.3	nd	nd	nd	nd	0.7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.7	nd	-	-
TP14	0.2-0.3	nd	nd	nd	nd	1.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.8	nd	nd	nd
TP15	0.1-0.2	nd	nd	nd	nd	2.2	nd	1.2	1.1	nd	0.5	0.6	nd	nd	nd	nd	nd	5.6	nd	-	-
TP16	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP17	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP18	0.2-0.3	nd	nd	nd	nd	1	nd	1.2	1.1	nd	0.5	0.7	nd	nd	nd	nd	nd	4.5	nd	nd	nd
TP19	0.2-0.3	nd	nd	nd	nd	0.6	nd	0.6	0.5	nd	nd	nd	nd	nd	nd	nd	nd	1.7	nd	-	-
TP20	0.1-0.2	nd	nd	nd	nd	0.6	nd	1.5	1.5	0.7	0.8	1.1	nd	0.9	0.6	nd	0.7	8.4	1.2	nd	nd
TP21	0.2-0.3	3.8	1.3	nd	nd	2.1	0.9	4.1	4.2	2.6	2.8	3.4	1.3	2.8	1.1	nd	1	31.4	3.7	-	-
TP22	0.2-0.3	nd	nd	nd	nd	2.2	nd	3.7	3.3	1.4	1.6	1.7	0.6	1.2	nd	nd	nd	15.7	1.6	nd	nd
TP23	0.2-0.3	2.2	12.8	nd	nd	23.8	10.4	51.6	53.7	30.1	29.6	32.6	12.8	34.7	11.3	3.4	10.8	320	**47.2**	-	-
TP24	0.2-0.3	nd	nd	nd	nd	0.6	nd	1.1	1.4	0.7	0.8	1	nd	1	nd	nd	nd	6.6	1.2	nd	nd

Table 3: Historical Soil Analytical Summary - PAHs & Phenols (mg/kg)

Sample	Depth (m)	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1.2.3.cd)pyrene	Dibenz(a.h)anthracene	Benzo(g.h.i)perylene	Total PAHs	B(a)P TEQ	Phenol	Pentachlorophenol
LORs		*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*2*
TP25	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP26	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP27	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.5	nd	nd	nd	nd	nd	0.5	nd	-	-
TP28	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP29	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP30	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP31	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP32	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP33	0.05-0.15	nd	nd	nd	nd	nd	nd	0.6	0.6	nd	nd	nd	nd	nd	nd	nd	nd	1.2	nd	-	-
TP34	0-0.1	nd	nd	nd	nd	nd	nd	0.6	0.6	nd	nd	nd	nd	nd	nd	nd	nd	1.2	nd	nd	nd
TP35	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP36	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP37	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
TP38	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP39	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH40	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH41	0.3-0.4	4	nd	1	2.8	3.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	11.6	nd	nd	nd
BH42	0.4-0.5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH43	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH44	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH45	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	-	-
BH46	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH48	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Statistics																					
Samples analysed		67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	34	34
Detects		5	2	1	1	17	2	22	21	9	11	14	3	10	4	1	5	27	10	0	0
% detect		7%	3%	1%	1%	25%	3%	33%	31%	13%	16%	21%	4%	15%	6%	1%	7%	40%	15%	<0.5	<2
Maximum		4.0	12.8	1.0	2.8	23.8	10.4	51.6	53.7	30.1	29.6	32.6	12.8	34.7	11.3	3.4	10.8	320.0	**47.2**	<0.5	<2
Mean		2.3	7.1	1.0	2.8	2.6	5.7	3.6	3.8	4.3	3.7	3.4	4.9	4.4	3.4	3.4	2.7	17.0	5.9	<0.5	<2
Median		2.2	7.1	1.0	2.8	0.9	5.7	1.1	1.1	0.7	0.8	1.0	1.3	1.0	0.9	3.4	0.7	2.8	1.2	<0.5	<2
Minimum		<0.5	<0.5	<0.5	<0.5	#REF!	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2
Criteria																					
HILs - Commercial / Industrial D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,000	**40**	240,000	660
EILs - Commercial / Industrial (Aged)		370	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-

Table 4: Historical Soil Analytical Summary - OCPs, OPPs & PCBs (mg/kg)

Sample	Depth (m)	Heptachlor	Total Chlordane (sum)	Endrin	Endosulfan (sum)	Methoxychlor	Sum of Aldrin + Dieldrin	Sum of DDD + DDE + DDT	Chloropyrifos	Total Polychlorinated Biphenyls
LORs		*0.2*	*0.1*	*0.05*	*0.05*	*0.2*	*0.05*	*0.05*	*0.05*	*0.1*
Soil Analytical - Preliminary Site Investigation (Cavvanba, 2021)										
BH01	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH02	0.0-0.05	-	-	-	-	-	-	-	-	-
BH03	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH04	0.0-0.05	-	-	-	-	-	-	-	-	-
BH05	0.2-0.3	-	-	-	-	-	-	-	-	-
BH06	0.0-0.05	-	-	-	-	-	-	-	-	-
BH07	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH08	0.0-0.05	-	-	-	-	-	-	-	-	-
BH09	0.0-0.05	-	-	-	-	-	-	-	-	-
BH10	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH11	0.0-0.05	-	-	-	-	-	-	-	-	-
BH12	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	0.7
BH13	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH14	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH15	0.0-0.05	-	-	-	-	-	-	-	-	-
BH16	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH17	0.0-0.05	-	-	-	-	-	-	-	-	-
BH18	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH19	0.0-0.05	-	-	-	-	-	-	-	-	-
BH20	0.0-0.05	nd	nd	nd	nd	nd	nd	nd	nd	nd
Soil Analytical - Environmental Site Assessment (Cavvanba, 2021)										
TP02	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP04	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP06	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP08	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP10	0.4-0.5	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP12	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP14	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP16	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP18	0.2-0.3	nd	nd	nd	nd	nd	nd	0.09	nd	nd
TP20	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP22	0.2-0.3	nd	nd	nd	nd	nd	nd	0.14	nd	nd
TP24	0.2-0.3	nd	nd	nd	nd	nd	nd	0.14	nd	nd
TP26	0.1-0.2	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP28	0-0.1	nd	nd	nd	nd	nd	nd	0.08	nd	nd
TP30	0.05-0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP32	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP34	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP36	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
TP38	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH40	0.2-0.3	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH41	0.3-0.4	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH44	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH46	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH48	0-0.1	nd	nd	nd	nd	nd	nd	nd	nd	nd
Statistics										
Samples analysed		34	34	34	34	34	34	67	34	34
Detects		0	0	0	0	0	0	4	0	1
Maximum		-	-	-	-	-	-	0.14	-	0.70
Mean		-	-	-	-	-	-	-	-	-
Median		-	-	-	-	-	-	-	-	-
Minimum		<0.2	<0.1	<0.05	<0.05	<0.2	<0.2	<0.2	<0.05	<0.1
Criteria										
HILs - Commercial / Industrial D		50	530	100	2,000	2,500	45	3,600	2,000	7
EILs - Commercial and Industrial (Aged)		-	-	-	-	-	-	640 (DDT only)		-

Appendix B

Field Data and Calibration Records

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW01
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 30/06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME	PURGE METHOD
Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other	☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
Total Depth of Well (TD in m BTOC): 8.025	☐ Pump – Type: ☐ Submersible ☒ Peristaltic ☐ Other
Water Level Depth WL in m BTOC): 5.710	**PUMP INTAKE SETTING**
Number of well volumes to be purged (# VOLS) ☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other	Depth (m BTOC)
	Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations) TDS (ppm)	
5	0.5	7.26	0.976	17.86	4.20	-30.3	5.912	489	
10	1.0	7.22	0.968	17.29	3.72	-30.7	5.925	486	
15	1.5	7.12	0.970	17.86	3.15	-33.2	5.921	486	
20	2.0	7.12	0.969	17.29	2.95	-33.3	5.925	485	
25	2.5	7.11	0.975	19.18	2.75	-37.1	5.922	488	

Observations during purging (well condition, turbidity, colour, odour, sheen): PID in pipe = 469ppm

Clear, moderate hydrocarbon odour/sheen

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD ☒ Same as purge method

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other ☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	1	unpreserved	1	
3	ml plastic	1	HNO_3	1	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW02
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 30 /06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME	PURGE METHOD
Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other	☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
Total Depth of Well (TD in m BTOC): 8.010	☐ Pump – Type: ☐ Submersible ☒ Peristaltic ☐ Other
Water Level Depth WL in m BTOC): 5.235	**PUMP INTAKE SETTING**
Number of well volumes to be purged (# VOLS) ☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other	Depth (m BTOC)
	Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations)	
								TDS (ppm)	
5	0.5	8.12	1.047	15.46	2.92	-14.5	5.445	524	
10	1.0	8.15	1.050	15.89	3.11	-17.1	5.447	526	
15	1.5	8.11	1.047	16.82	3.10	-16.2	5.444	525	
20	2.0	8.12	1.046	16.23	3.25	-16.4	5.443	524	
25	2.5	8.13	1.043	16.10	3.32	-16.1	5.445	521	

Observations during purging (well condition, turbidity, colour, odour, sheen):
Clear, no odour or sheen.

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other ☒ Same as purge method ☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	/	unpreserved	/	
3	ml plastic	/	HNO_3	/	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No
		Rinsate	RB2		
		/	/		

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW03
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 29/06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME

Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other

Total Depth of Well (TD in m BTOC): 5.995

Water Level Depth WL in m BTOC): 3.755

Number of well volumes to be purged (# VOLS)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
☐ Pump – Type: ☐ Submersible ☒ Peristaltic
☐ Other

PUMP INTAKE SETTING

Depth (m BTOC)

Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations)	
								TDS (ppm)	
5	0.5	7.21	1.647	17.14	3.21	-45.1	3.920	825	
10	1.0	7.30	1.563	17.88	3.57	-43.9	3.991	781	
15	1.5	7.42	1.538	16.90	3.55	-44.2	4.020	774	
20	2.0	7.42	1.545	16.67	3.79	-44.4	4.017	774	
25	2.5	7.41	1.547	16.79	3.65	-44.3	4.010	773	

Observations during purging (well condition, turbidity, colour, odour, sheen):
Slightly cloudy, slight sheen and hydrocarbon odour

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

☒ Same as purge method

☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	1	unpreserved	1	
3	ml plastic	1	HNO_3	1	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No
MW03	QW01				
MW03	QW02				

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW04
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 29/06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME	PURGE METHOD
Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other	☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
Total Depth of Well (TD in m BTOC): 6.975	☐ Pump – Type: ☐ Submersible ☒ Peristaltic ☐ Other
Water Level Depth WL in m BTOC): 3.770	**PUMP INTAKE SETTING**
Number of well volumes to be purged (# VOLS) ☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other	Depth (m BTOC)
	Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations)	
								TDS (ppm)	
5	0.5	7.76	1.589	14.25	3.52	-46.0	3.825	794	
10	1.0	7.69	1.584	15.65	3.54	-46.3	3.825	794	
15	1.5	7.69	1.554	16.32	3.42	-46.1	3.830	778	
20	2.0	7.70	1.561	15.49	3.47	-46.3	3.830	778	
25	2.5	7.71	1.560	15.48	3.46	-46.7	3.825	778	

Observations during purging (well condition, turbidity, colour, odour, sheen):
Slightly cloudy becoming clear, no odour or sheen

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

☒ Same as purge method

☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	1	unpreserved	1	
3	ml plastic	1	HNO_3	1	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	
	/				

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW05
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 30/06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME

Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other

Total Depth of Well (TD in m BTOC): 6.090

Water Level Depth WL in m BTOC): 4.340

Number of well volumes to be purged (# VOLS)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

☐ Pump – Type: ☐ Submersible ☒ Peristaltic
☐ Other

PUMP INTAKE SETTING

Depth (m BTOC)

Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations) TDS (ppm)	
5	0.5	8.43	0.326	14.00	6.88	-7.0	4.450	326	
10	1.0	8.38	0.514	15.29	6.89	-10.3	4.475	257	
15	1.5	8.32	0.500	15.27	7.07	-12.2	4.505	250	
20	2.0	8.23	0.504	14.54	6.57	-13.8	4.512	252	
25	2.5	8.22	0.500	14.23	6.87	-13.6	4.508	250	

Observations during purging (well condition, turbidity, colour, odour, sheen):
Slightly cloudy becoming clear, no odour or sheen.

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

☒ Same as purge method

☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	1	unpreserved	1	
3	ml plastic	1	HNO_3	1	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No

CAVVANBA consulting

Ground Water Sampling Sheet

Job Name: Detailed Site Investigation	Well No: MW06
Job Number: 21075	Well Type: ☒ Monitor ☐ Extractor ☐ Other
Recorded By: Z.Laughlan	Well Material: ☒ PVC ☐ SS ☐ Other
Date: 20/06/2022	Sample by: Z.Laughlan

PURGING

PURGE VOLUME	PURGE METHOD
Well Diameter (D in mm): ☐ 50 ☐ 100 ☐ Other	☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
Total Depth of Well (TD in m BTOC): 7.140	☐ Pump – Type: ☐ Submersible ☑ Peristaltic ☐ Other
Water Level Depth WL in m BTOC): 5.195	**PUMP INTAKE SETTING**
Number of well volumes to be purged (# VOLS) ☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other	Depth (m BTOC)
	Screen Interval (m BTOC) – Top : Bottom:

PURGE TIME

PURGE TIME 25 mins PURGE RATE 4.0L ACTUAL PURGE VOLUME 2.5L

Start: Stop: Elapsed: Initial: Final:

FIELD PARAMETER MEASUREMENTS

Min since purge began	Volume Purged (L)	pH	Cond. (mS/cm)	Temp (°C)	DO (mg/L)	Redox (mV)	SWL (mBTOC)	Other (e.g. observations)	
								TDS (ppm)	
5	0.5	7.34	3868	15.35	6.57	3.8	5.460	1762	
10	1.0	7.56	3.544	14.66	6.67	3.6	5.472	1773	
15	1.5	7.61	3.354	15.76	6.60	3.1	5.465	1681	
20	2.0	7.62	3.365	15.80	6.72	2.8	5.462	1687	
25	2.5	7.62	3.398	14.60	6.57	2.5	5.460	1711	

Observations during purging (well condition, turbidity, colour, odour, sheen):
Slightly cloudy becoming clear, no odour or sheen

Discharge water disposal: ☐ Drums ☐ Sanitary sewer ☐ Storm sewer ☐ Surface ☒ Other

SAMPLING

SAMPLING METHOD

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

☒ Same as purge method

☐ Pump – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other

SAMPLE DISTRIBUTION Sample Name:

Bottles:	Vol/Cont.	Analysis	Preservatives	Lab	Comments
1	ml Amber	3	unpreserved	3	Additional sample collected for lab QA
3	ml plastic	1	HNO_3	1	field filtered? (Y) / N
2	ml VOA vials	2	HCl	2	

QUALITY CONTROL SAMPLES

Duplicate Samples		Blank Samples		Other Samples	
Original No	Duplicate No	Type	Sample No	Type	Sample No

Photoionisation Detector Calibration Record

Job Ref. 21075 Location Goulburn Personnel ZL

Serial Number	Date	Time	Span gas conc' (e.g 100 ppm isobutylene)	Span gas reading	Fresh air Cal reading	Initials
SN: 592-905868	21.6.22	7:35	100	99.8	0.0	ZL
" "	22.6.22	7:15	100	99.6	0.0	ZL
" "	23.6.22	7:15	100	99.6	0.0	ZL
" "	27.6.22	14:20	100	99.7	0.0	ZL
" "	28.6.22	7:10	100	99.6	0.0	ZL
" "	29.6.22	7:10	100	99.7	0.0	ZL
" "	30.6.22	7:20	100	99.6	0.0	ZL

Equipment Calibration Report

HAN Water Quality Meter 98194-4M– Serial No. 0404000101

pH	☑ pH 6.86	Actual: 6.87
Conductivity	☑ 5,000 uS/cm	Actual: 4,992
Dissolved oxygen	☑ 0.0 mg/L	Actual: 0.0
Redox Potential	☑ 240 mV	Actual: 239

Temperature, (i.e. Room temperature): 12.88

Calibrated by: ZL

Date tested: 29.6.22

Job Reference: 21075

Notes:

Equipment Calibration Report

HAN Water Quality Meter 98194-4M– Serial No. 0404000101

pH	☑ pH 6.86	Actual: 6.86
Conductivity	☑ 5,000 uS/cm	Actual: 4,997
Dissolved oxygen	☑ 0.0 mg/L	Actual: 0.0
Redox Potential	☑ 240 mV	Actual: 240

Temperature, (i.e. Room temperature): 13.95

Calibrated by: ZL

Date tested: 30.6.22

Job Reference: 21075

Notes:

PAS portable analytical solutions

Niton XRF check standards

Element	RM 180-646 TiII-4	CRM 180-649 NIST 2709a	Blank 180-647 SiO2 99.995%	QC Material 180-472 Nist 2710	QC Material 180-661 RCRA1
Ag			<10	35.5	500
As	111	10.5	<10	626.0	500
Au	<10		<10		
Ba	395	979	<10	707	1000
Cd		<10	<10	21.80	500
Co		<50	<10		
Cr	<65	130	<10		500
Cs	12		<10		
Cu	237	33.9	<10	2950	
Fe	39700	33600	<10	3	
Hg		0.9	<10	32.6	
Mn	490	529	<10	1	
Mo	16		<10		
Ni	<60	85	<10	14.3	
Pb	50	17.3	<10	5532	500
Pd			<10		
Rb	161	99	<10		
Sb	<30	<30	<10		
Sc	<90	11.1	<10		
Se			<10		500
Sn			<10		
Sr	109	239	<10		
Te			<10		
Th	17.4	10.9	<10		
Ti	4840	3360	<10		
U	<20	<10	<10		
V	67	110	<10	76.6	
W	204		<10		
Zn	70	103	<10	6952	
Zr	385	195	<10		

PAS

Soil QC Sheet

Certificate of Calibration

Revision Date: September 2014

Serial Number: 58027 | Model: XL3t 500 | Software: 8.4L.28 | Date of Q.C. 17-May-2022

Resolution: Shaping 1 177.41 | Escale: Shaping 1 7.31 | Source: Tube | Inspector: Shaun A

Shaping 4 177.41 | Shaping 4 7.31 | Calibration type: Empirical

60 second analysis time per filter, all switched on

Elements that are in BLUE BOLD should be detected Elements not in BLUE BOLD need not be detected but record if present

NIST HIGH 2710	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	**707**	**507**	**978**	**794.34**	45.86	OK	
Cs	107	0	400	**75.42**	10.18	OK	
Te	NR	-300	300	**121.47**	30.27	OK	
Sb	38.4	-100	110	**73.08**	12.35	OK	
Sn	NR	-100	100	**69.23**	14.12	OK	
Cd	21.8	-10	50	**30.11**	6.93	OK	
Ag	35.3	0	60	**42.84**	5.73	OK	
Pd	NR	-70	70	**1.51**	7.49	OK	< LOD
Mo	19	0	30	**17.3**	5.4	OK	
Zr	NR			**113.61**	7.75		
Sr	**330**	**280**	**380**	**327.68**	9.95	OK	
U	25	10	40	**27.35**	12.26	OK	
Rb	**120**	**80**	**160**	**121.38**	7.99	OK	
Th	13	-80	80	**54.82**	19.8	OK	
Pb	**5532**	**5400**	**5832**	**5671.65**	82.65	OK	
Se	NR	-30	30	**-8.07**	7.2	OK	< LOD
As	**626**	**510**	**750**	**734.7**	67.7	OK	
Hg	32.6	0	50	**34.8**	13.6	OK	
Au		-20	25	**-2.2**	12.6	OK	< LOD
Zn	**6952**	**6700**	**7250**	**7054.9**	114.7	OK	
W	**93**	**0**	**400**	**39.2**	83.1	OK	< LOD
Cu	**2960**	**2700**	**3250**	**3146.9**	90.9	OK	
Ni	14.3	0	105	**47.63**	39.08	OK	< LOD
Co	10	-270	270	**-34.45**	134.67	OK	< LOD
Fe	**33800**	**30420**	**37180**	**33057.34**	440.38	OK	
Mn	**10100**	**9500**	**12000**	**10027.2**	301.5	OK	
Cr	39	-100	120	**16.38**	22.52	OK	< LOD
V	76.6	-200	300	**87.42**	48.8	OK	
Ti	2830	2260	3500	**3004.05**	154.88	OK	
Sc	8.7	-160	160	**45.98**	30.57	OK	
Ca	**12500**	**8000**	**17000**	**11422.0**	326.41	OK	
K	**21100**	**16100**	**26100**	**22128.9**	596.40	OK	
S	2400	-140000	140000	**5287.13**	1115.23	OK	

SiO2 (Blank)	Expected**	Low	High	Measured	Err	Pass	<LOD?
Ba	**0**	-200	200	**-106.1**	29.27	OK	< LOD
Cs	**0**	-260	260	**-15.85**	7.04	OK	< LOD
Te	**0**	-220	220	**-34.08**	21.02	OK	< LOD
Sb	**0**	-120	80	**-11.74**	8.33	OK	< LOD
Sn	**0**	-120	70	**-19.58**	-19.58	OK	
Cd	**0**	-50	50	**-5.13**	4.53	OK	< LOD
Ag	**0**	-30	30	**-2.01**	3.34	OK	< LOD
Pd	**0**	-50	50	**-7.04**	5.21	OK	< LOD
Mo	**0**	-10	10	**-3.65**	3.3	OK	< LOD
Zr	**0**	-10	10	**1.28**	2.02	OK	< LOD
Sr	**0**	-10	10	**-1.58**	1.25	OK	< LOD
U	**0**	-10	10	**0.65**	3.58	OK	< LOD
Rb	**<210**	-10	210	**-0.12**	1.43	OK	< LOD
Th	**0**	-10	10	**-1.09**	2.37	OK	< LOD
Pb	**0**	-10	10	**-10.24**	4.15	OK	< LOD
Se	**0**	-20	20	**-7.6**	2.09	OK	< LOD
As	**0**	-10	10	**-2.71**	2.78	OK	< LOD
Hg	**0**	-10	10	**1.01**	4.02	OK	< LOD
Au	**0**	-10	10	**-2.37**	2.77	OK	< LOD
Zn	**0**	-10	10	**9**	4.96	OK	
W	**0**	-60	60	**-15.35**	22.36	OK	< LOD
Cu	**0**	-20	20	**-9.36**	11.11	OK	< LOD
Ni	**0**	-70	70	**18.14**	19.66	OK	< LOD
Co	**0**	-50	50	**20.36**	12.42	OK	
Fe	**0**	-50	50	**14.27**	20.29	OK	< LOD
Mn	**0**	-100	300	**79.73**	24.41	OK	
Cr	**0**	-120	120	**-32.92**	8.83	OK	< LOD
V	**0**	-160	160	**-5.45**	7.56	OK	< LOD
Ti	**0**	-700	700	**8.82**	18.43	OK	< LOD
Sc	**0**	-100	100	**-0.62**	2.83	OK	< LOD
Ca	**0**	-2000	2000	**37.28**	20.4	OK	
K	**0**	-3000	3000	**106.97**	58.55	OK	
S	**0**	-140000	140000	**12.17**	205.77	OK	< LOD

NIST LOW 2709	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	**968**	**638**	**1238**	**865.62**	40.51	OK	
Cs	5.3	-300	300	**35.69**	8.73	OK	
Te	NR	-300	300	**43.45**	26.03	OK	
Sb	7.9	-90	100	**18.59**	10.35	OK	
Sn	NR	-100	100	**27.53**	12.01	OK	
Cd	0.38	-60	60	**3.43**	5.64	OK	< LOD
Ag	0.41	-40	40	**0.78**	4.12	OK	< LOD
Pd	NR	-60	60	**0.72**	6.58	OK	< LOD
Mo	2	-10	10	**1.97**	4.35	OK	< LOD
Zr	**160**	**120**	**200**	**146.84**	6.36	OK	
Sr	**231**	**180**	**300**	**225.05**	7.09	OK	
U	3	-80	80	**9.24**	8.19	OK	< LOD
Rb	**96**	**76**	**116**	**85.29**	5.47	OK	
Th	11	-80	80	**10.60**	4.26	OK	
Pb	18.9	0	35	**-0.15**	6.19	OK	< LOD
Se	1.57	-30	30	**-7.78**	3.13	OK	< LOD
As	17.7	0	35	**14.14**	5.28	OK	
Hg	1.4	-10	10	**5.3**	5.9	OK	< LOD
Au		-15	15	**-0.8**	4.1	OK	< LOD
Zn	**106**	**50**	**160**	**128.12**	15.12	OK	
W	2	-80	80	**-8.47**	32.29	OK	< LOD
Cu	34.6	0	60	**14.76**	16.63	OK	< LOD
Ni	88	0	125	**101.54**	31.70	OK	
Co	13.4	-250	280	**58.62**	103.05	OK	< LOD
Fe	**35000**	**25000**	**35000**	**26381.07**	328.33	OK	
Mn	538	0	700	**484.1**	67.4	OK	
Cr	130	30	200	**129.3**	22.8	OK	
V	112	-300	400	**120.1**	47.7	OK	
Ti	**3420**	**2700**	**4400**	**3750.9**	153.1	OK	
Sc	NR	-250	250	**16.6**	34.7	OK	< LOD
Ca	**18900**	**13900**	**27000**	**20368.6**	379.8	OK	
K	**20300**	**15300**	**25300**	**20757.6**	527.0	OK	
S	890	-150000	150000	**1231.6**	747.2	OK	

RCRA	Expected**	Low	High	Measured	Err	Pass	<LOD?
Ba				**630.76**	43.58		
Cs				**62.18**	9.8		
Te				**89.64**	29.2		
Sb	**0**	**0**	**0**	**28.05**	12.4		
Sn	0	0	0	**65.25**	14.59		
Cd	**500**	**400**	**600**	**519.85**	13.17	OK	
Ag	**500**	**400**	**600**	**519.66**	12.34	OK	
Pd				**9.93**	8.59		
Mo				**1.91**	5.03		
Zr				**248.27**	8.48		
Sr	NA			**181.82**	7.13		
U				**-1.3**	8.66		
Rb	NA			**87.31**	6.13		
Th				**11.99**	7.22		
Pb	**500**	**400**	**600**	**505.9**	28.47	OK	
Se	**500**	**400**	**600**	**510.91**	20.25	OK	
As	**500**	**400**	**600**	**467.42**	27.1	OK	
Hg	NA			**4.01**	8.18		
Au				9.92	15.89		
Zn	NA			**65.82**	14.06		
W				**18.16**	39.19		
Cu	NA			**39.94**	21.01		
Ni	NA			**39.66**	36.35		
Co	NA			**216.61**	153.24		
Fe	NA			**45123.49**	484.61		
Mn	NA			**851**	98.92		
Cr (variable)	**500**			**382.85**	32.14		
V				**134.4**	54.35		
Ti				**4950.3**	180.17		
Sc				**30.98**	50.6		
Ca				**35648.11**	552.19		
K				**20684.3**	594.69		
S				**902.63**	884.96		

GBW 07411	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	**550**	**320**	**800**	**681.03**	44.13	OK	
Cs	9	-457	457	**52.93**	9.83	OK	
Te	NR	-300	300	**89.38**	29.33	OK	
Sb	9	-80	100	**29.29**	11.65	OK	
Sn	NR	-120	120	**106.08**	14.07	OK	
Cd	28	0	47	**30.99**	6.82	OK	
Ag	5	-35	47	**7.3**	4.74	OK	
Pd	NR	-60	60	**5.57**	7.46	OK	< LOD
Mo	2	-9	9	**1.65**	5.08	OK	< LOD
Zr	**192**	**25**	**359**	**198.29**	8.05	OK	
Sr	**130**	**95**	**159**	**133.28**	6.43	OK	
U	3	-19	19	**5.76**	9.82	OK	< LOD
Rb	**111**	**61**	**120**	**107.37**	7.04	OK	
Th	**13**	**-18**	**45**	**16.92**	13.62	OK	< LOD
Pb	**2700**	**2324**	**2900**	**2775.97**	57.12	OK	
Se	1	-10	15	**-13.29**	5.35	OK	< LOD
As	205	127	283	**207.93**	45.54	OK	
Hg	0	-10	50	**6.82**	10.13	OK	< LOD
Au		-10	15	**0.70**	8.99	OK	< LOD
Zn	**3800**	**2711**	**4880**	**3762.50**	82.22	OK	
W	7	-184	184	**25.34**	64.36	OK	< LOD
Cu	**65**	**42**	**80**	**43.65**	22.86	OK	
Ni	24	-35	117	**77.59**	38.98	OK	
Co	12	-232	232	**-108.79**	166.38	OK	<LOD
Fe		**0**	**60000**	**53067.75**	544.86	OK	
Mn	9700	4561	10643	**9922.6**	296.6	OK	
Cr	60	-317	380	**70.1**	28.3	OK	
V	89	-325	380	**164.8**	60.2	OK	
Ti	**4100**	**3283**	**4917**	**4417.4**	192.3	OK	
Sc	11	-300	300	**46.0**	54.2	OK	< LOD
Ca		**0**	**365000**	**33995.3**	586.2	OK	
K		**0**	**25000**	**19566.4**	630.6	OK	
S		-16000	16000	**3196.2**	1179.2	OK	

DL1a	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	ND			**299.68**	34.37		
Cs	ND			**22.67**	7.92		
Te	ND			**14.08**	23.56		
Sb	ND			**10.19**	**9.37**		
Sn	ND			**20.04**	10.84		
Cd	ND			**-6.25**	4.98		
Ag	ND			**2.59**	3.79		
Pd	ND			**1.13**	6.01		
Mo	ND			**5.08**	4.21		
Zr	ND			**97.92**	4.79		
Sr	ND			**14.99**	2.28		
U	**116**	**93**	**140**	**121.11**	11.27	OK	
Rb	ND			**95.46**	6.07		
Th	**76**	**60**	**92**	**69.99**	7.01	OK	
Pb	ND			**61.81**	9.39		
Se	ND			**-11.20**	3.02		
As	ND			**-2.58**	6.79		
Hg	ND			**4.3**	5.4		
Au	ND			**0.1**	4.1		
Zn	ND			**64.71**	10.84		
W	ND			**14.86**	29.18		
Cu	ND			**5.55**	14.19		
Ni	ND			**25.61**	23.86		
Co	ND			**31.96**	45.03		
Fe	**9000**			**5104.55**	138.87		
Mn	ND			**136.7**	35.9		
Cr	ND			**24.2**	12.3		
V	ND			**33.2**	21.1		
Ti	900			**964.4**	64.7		
Sc	ND			**2.9**	10.3		
Ca	3000			**2702.9**	130.7		
K	2000			**25337.9**	420.2		
S	4000			**1443.3**	471.5		

PAS

Certificate of Calibration

Serial Number: 58027 | Model: XL3t 500 | Software: 8.4L.28 | Date of Q.C.: 17-May-2022

Resolution: Shaping 1 177.41 | Escale: Shaping 1 7.31 | Source: Tube | Inspector: Shaun A

Shaping 4 177.41 | Shaping 4 7.31 | Calibration type: Empirical

60 second analysis time per filter, all switched on

Elements that are in BLUE BOLD should be detected Elements not in BLUE BOLD need not be detected but record if present

TILL4	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	**395**	**195**	**610**	**481.72**	39.57	OK	
Cs	12	-300	300	**40.15**	8.98	OK	
Te	NR	-300	300	**65.11**	26.85	OK	
Sb	1	-100	100	**22.17**	10.64	OK	
Sn	NR	-100	100	**59.36**	12.54	OK	
Cd	NR	-70	70	**-1.9**	5.68	OK	< LOD
Ag	NR	-50	50	**3.02**	4.26	OK	< LOD
Pd	NR	-60	60	**-2.41**	6.62	OK	< LOD
Mo	16	0	30	**12.09**	5.15	OK	
Zr	385	185	585	**410.69**	9.66	OK	
Sr	**109**	**50**	**150**	**111**	5.34	OK	
U	5	**-20**	**20**	**-1.93**	9.25	OK	< LOD
Rb	**161**	**100**	**210**	**148.50**	7.17	OK	
Th	17.4	-40	70	**44.76**	6.76	OK	
Pb	50	28	70	**48.75**	9.74	OK	
Se	NR	-15	15	**-11.09**	3.84	OK	< LOD
As	111	80	140	**108.96**	10.88	OK	
Hg	NR	-15	15	**10.3**	8.3	OK	< LOD
Au		-10	10	**0.8**	5.2	OK	< LOD
Zn	70	45	95	**65.28**	13.65	OK	
W	**204**	**130**	**270**	**160.68**	43.85	OK	
Cu	**237**	**200**	**280**	**217.11**	26.86	OK	
Ni	17	-50	90	**49.00**	31.61	OK	
Co	8	-300	300	**18.02**	119.06	OK	< LOD
Fe	**39700**	**29700**	**49700**	**31868.56**	382.07	OK	
Mn	490	300	600	**459.8**	70.3	OK	
Cr	53	-50	150	**27.5**	20.8	OK	< LOD
V	67	-150	250	**95.5**	49.0	OK	
Ti	**4840**	**3870**	**5808**	**4932.0**	164.8	OK	
Sc	10	-150	150	**3.2**	24.1	OK	< LOD
Ca	NR			**7868.8**	272.4		
K	NR			**28039.6**	632.4		
S	800	-130000	130000	**444.2**	704.7	OK	< LOD

NIST2780	Certified	Low	High	Measured	Err	Pass	<LOD?
Ba	**993**	**844**	**1142**	**1059**	46.18	OK	
Cs	13	-10	100	**82.57**	9.89	OK	
Te		0	150	**96**	29.48	OK	
Sb	160	100	250	**195.69**	13.06	OK	
Sn		-20	100	**75.98**	13.77	OK	
Cd	12.1	5	30	**22.28**	6.55	OK	
Ag	27	0	120	**38.84**	5.45	OK	
Pd		-15	15	**4.47**	7.36	OK	< LOD
Mo	11	0	20	**4.51**	4.99	OK	< LOD
Zr	176	131	220	**185.65**	8.07	OK	
Sr	**217**	**195**	**239**	**226.08**	7.97	OK	
U	4	-20	20	**9.47**	11.79	OK	< LOD
Rb	175	140	210	**190.55**	8.90	OK	
Th	12	0	55	**44.59**	18.08	OK	
Pb	**5770**	**4904**	**6635**	**5250.81**	75.76	OK	
Se	5	-10	10	**-5.13**	6.50	OK	< LOD
As	48.8	0	90	**43.40**	58.38	OK	< LOD
Hg		-15	15	**4.3**	9.5	OK	< LOD
Au		-20	20	**-14.1**	10.0	OK	< LOD
Zn	**2570**	**1800**	**3340**	**2094.38**	59.71	OK	
W		-100	100	**53.73**	54.21	OK	< LOD
Cu	**216.5**	**161**	**280**	**194.06**	28.39	OK	
Ni		-100	100	**21.44**	33.45	OK	< LOD
Co		-200	200	**3.79**	107.47	OK	< LOD
Fe	**27840**	**22272**	**33408**	**23025.6**	344.42	OK	
Mn	**462**	**415**	**508**	**490.0**	69.5	OK	
Cr		0	70	**39.1**	19.5	OK	
V	268	150	350	**254.2**	55.7	OK	
Ti	**6990**	**6291**	**7689**	**7186.4**	183.2	OK	
Sc	23	3	33	**8.7**	13.9	OK	< LOD
Ca	1950	1000	3000	**1714.0**	172.7	OK	
K	**33800**	**30420**	**37500**	**37179.3**	660.0	OK	
S	**12630**	**5000**	**15000**	**13283.4**	1326.9	OK	

This certificate is issued in accordance with Thermo Fisher Scientific factory specifications.
The measurements were found to be within specification limits at the time of calibration.
This certificate is valid for 2 years from the date of calibration.

Standards are traceable to National Institute of Standards & Technology (NIST) standards.
**** - Not Certified**

Signed:

Paul Martin
Director

SCALE - 1:2000
AZIMUTH - MGA
CONTOUR INTERVAL -
DATUM - AHD
DATE - 29/06/2022
REF - 24126-220629

CAVVANBA CONSULTING P/L
SURVEY SHOWING MONITORING WELLS
GOULBURN RAIL YARDS
SLOANE STREET - GOULBURN

SOUTHERN CROSS
CONSULTING SURVEYORS

3/31 Clinton Street
PO Box 142
GOULBURN NSW 2580

T: 02 4822 1366

E: admin@sccsurveyors.com.au

Appendix C

Borehole and Testpit Logs

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A01**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**2.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.01	A01/0.0-0.1 QS01, QS02	Railway sleepers, plastic, glass.
		0.2									
		0.3									
		0.4							0.0	A01/0.3-0.4	
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.80									
		1.9			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, medium plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A01/1.8-1.9	
		2.00									
		2.1					**Terminated at 2.00 m** Target depth.				
		2.2									

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Cavvanba Consulting Pty Ltd | 4/82 Centennial Circuit (PO Box 2191), Byron Bay, NSW 2481 | Tel.02 6685 7811 | www.cavvanba.com

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A02**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Ballast				
EX		0.1			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	A02/0.0-0.1	
		0.2									
		0.3									
		0.4							0.0	A02/0.3-0.4	
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.10									
		1.2			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, medium plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A02/1.1-1.2	
		1.3									
		1.40									
		1.5					**Terminated at 1.40 m** Target depth.				
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A03**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Ballast				
EX		0.1 0.2 0.3 0.4 0.5 **0.60**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	A03/0.0-0.1	Timber sleepers pieces, brick.
									0.0	A03/0.3-0.4	
		0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, medium plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A03/0.6-0.7	Hydrocarbon staining and slight odour at 0.9-1.0m.
									0.0	A03/1.3-1.4	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments:

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A04**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Clayey Gravel, dark grey, loose, sub-angular.	dry	0.0	A04/0.0-0.1	Asphalt pieces below surface.
		0.2									
		0.3							0.0	A04/0.3-0.4	
		0.4									
		0.5									
		0.60									
		0.70			F		**FILL** - Gravel, dark brown, loose, sub-angular.	slightly moist			Ash present.
		0.8			CL	Natural	**Sandy CLAY** - light brown, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A04/0.7-0.8	Light grey staining, slight hydrocarbon odour.
		0.9									
		1.0									
		1.1									
		1.2									
		1.30							1.4	A04/1.2-1.3	
		1.4					**Terminated at 1.30 m** on rock.				
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments:

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A05**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 0.5 0.6 0.7 **0.80**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular.	slightly moist	0.0 0.0	A05/0.0-0.1 A05/0.3-0.4	Metal pins.
		0.9 1.0 1.1 **1.20**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A05/0.8-0.9	
		1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.20 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A06**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Gravelly Silty Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	slightly moist	0.0	A06/0.0-0.1	
		0.20									
		0.3			F	Fill	**FILL** - Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	A06/0.3-0.4	Concrete footing, metal pins.
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.90									
		1.0			CL	Natural	**Sandy CLAY** - light brown, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	A06/0.9-1.0	
		1.1									
		1.2									
		1.3									
		1.4									
		1.50									
		1.6					**Terminated at 1.50 m** Target depth.				
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A07**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 0.5 0.6 **0.70**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	dry	0.0	A07/0.0-0.1 QS03, QS04	
									0.0	A07/0.3-0.4	
		0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	A07/0.7-0.8	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**A08**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	moist	0.0	A08/0.0-0.1	
		0.20									
		0.3			F	Fill	**FILL** - Silty Clay, light brown, medium stiff, medium plasticity, trace sub-angular gravel.	moist	0.0	A08/0.3-0.4	Brick present.
		0.4									
		0.5									
		0.6									
		0.70									
		0.8			CL	Natural	**Sandy CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	A08/0.7-0.8	
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B01**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, loose, sub-angular gravel.	slightly moist	0.0	B01/0.0-0.1	Ash present.
									0.0	B01/0.3-0.4	
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, medium plasticity, homogeneous.	slightly moist	0.0	B01/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B02**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**0.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Sandy Clay, light brown, soft, fine to medium grained sand, organic matter.	moist	0.0	B02/0.0-0.1	
		0.20			F	Fill	**FILL** - Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	moist			
		0.30			CL	Nat.	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B02/0.3-0.4	
		0.40					**Terminated at 0.40 m** on rock.				
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B03**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Clayey Silty Gravel, light brown, loose, sub-angular, moderately sorted.	dry	0.0	B03/0.0-0.1	Timber pieces.
									0.0	B03/0.3-0.4	
		0.6 0.7 0.8 0.9 1.0 1.1 **1.20**			CL	Natural	**Silty Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B03/0.5-0.6	
		1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.20 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B04**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 ***0.40***			F	Fill	**FILL** - Silty Clayey Gravel, light brown, loose, sub-angular, moderately sorted.	moist	0.0	B04/0.0-0.1	Metal pins.
		0.5 0.6 0.7 0.8 0.9 ***1.00***			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0 0.0	B04/0.3-0.4 B04/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B05**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	B05/0.0-0.1	
		0.4 **0.50**			F		**FILL** - Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	B05/0.3-0.4	Ash present.
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Silty Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B05/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B06**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
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		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 ***0.30***			F	Fill	**FILL** - Silty Gravelly Clay, dark grey, very soft, low plasticity, loose, sub-angular gravel.	dry	0.0	B06/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 ***1.20***			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, medium plasticity, fine to medium grained sand, homogeneous.	moist	0.0 0.0	B06/0.3-0.4 B06/0.5-0.6	
		1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.20 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Cavvanba Consulting Pty Ltd | 4/82 Centennial Circuit (PO Box 2191), Byron Bay, NSW 2481 | Tel.02 6685 7811 | www.cavvanba.com

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B07**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular gravel, moderately sorted.	slightly moist	0.0	B07/0.0-0.1	
									0.0	B07/0.3-0.4	Ash present 0.3-0.5m.
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Silty Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist			
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B08**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravel, dark grey, loose, sub-angular gravel, moderately sorted.	dry	0.0	B08/0.0-0.1	
		0.2									
		0.30									
		0.4			CL	Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	B08/0.3-0.4	
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B09**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 – 0.30			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, loose, sub-angular gravel.	slightly moist	0.0	B09/0.0-0.1 QS05, QS06	
EX		0.4 – 1.30			CL	Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	B09/0.3-0.4	
		1.4 – 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B10**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.20			F	Fill	**FILL** - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	dry	0.0	B10/0.0-0.1	
		0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.20			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	dry	0.0	B10/0.2-0.3	
		1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.20 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B11**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Sandy Silty Clay, light brown, very soft, low plasticity, fine to medium grained sand, with sub-angular gravel.	moist	0.0	B11/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B11/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B12**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 – 0.2 – *0.30*			F	Fill	**FILL** - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	dry	0.0	B12/0.0-0.1	
EX		0.4 – 0.5 – 0.6 – 0.7 – 0.8 – 0.9 – *1.00*			CL	Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	B12/0.3-0.4	
		1.1 – 1.2 – 1.3 – 1.4 – 1.5 – 1.6 – 1.7 – 1.8 – 1.9 – 2.0 – 2.1 – 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B13**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 – 0.30			F	Fill	**FILL** - Silty Gravelly Clay, dark grey, low plasticity, loose, sub-angular gravel.	dry	0.0	B13/0.0-0.1	
		0.4 – 1.00			CL	Natural	**Sandy CLAY** - light brown, mottled grey / red, soft, low plasticity.	slightly moist	0.0	B13/0.3-0.4	
		1.1 – 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B14**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	dry	0.0	B14/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Silty CLAY** - light brown, mottled grey, medium stiff, medium plasticity, homogeneous.	moist	0.0	B14/0.2-0.3	
		1.00					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au
Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B15**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravel, light grey, loose, sub-angular, moderately sorted.	dry	0.0	B15/0.0-0.1 QS07, QS08	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled grey, soft, low plasticity, fine to medium grained sand, homogeneous.	slightly moist	0.0	B15/0.2-0.3	
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B16**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	B16/0.0-0.1	Metal pins. Ash present at 0.2m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B16/0.3-0.4 B16/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B17**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	moist	0.0	B17/0.0-0.1	Timber pieces. Ash present from 0.2-0.3m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B17/0.3-0.4 B17/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B18**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	moist	0.0	B18/0.0-0.1	Timber pieces.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	B18/0.3-0.4	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B19**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Clayey Silty Gravel, dark brown, loose, sub-angular, moderately sorted.	dry	0.0	B19/0.0-0.1	Timber pieces. Ash present at 0.2m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	B19/3.0-0.4	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B20**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	dry	0.0	B20/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 **1.30**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B20/0.3-0.4	
		1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B21**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	moist	0.0	B21/0.0-0.1	Ash present 0.2-0.5m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B21/0.3-0.4 B21/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B22**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, ballast near surface.	dry	0.0	B22/0.0-0.1	
		0.2							0.0	B22/0.1-0.4	
		0.30									
		0.4			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist			
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0							0.0	B22/0.9-1.0	
		1.1									
		1.2									
		1.30									
		1.4					**Terminated at 1.30 m** Target depth.				
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B23**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.70 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 0.5 0.6 **0.70**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B23/0.0-0.1	Metal pieces.
									0.0	B23/0.3-0.4	Ash present 0.6-0.7m.
		0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 **1.70**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B23/0.7-0.8	
		1.8 1.9 2.0 2.1 2.2					**Terminated at 1.70 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B24**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.60 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B24/0.0-0.1	Metal pins, rubber.
		0.4 0.5 0.6 0.7 **0.80**			F		**FILL** - Silty Gravel, dark brown, loose, sub-angular gravel, poorly sorted, roadbase.	sat'd	0.0	B24/0.3-0.4	Ash present western side of test pit 0.3-0.4m.
		0.9 1.0 1.1 1.2 1.3 1.4 1.5 **1.60**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B24/0.8-0.9	
		1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.60 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B25**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
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CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B25/0.0-0.1 QS09, QS10	Metal pieces.
									0.0	B25/0.3-0.4	Ash present 0.3-0.5m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B25/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B26**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B26/0.0-0.1	Metal, rubber. Ash present 0.2-0.4m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B26/0.3-0.4 B26/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B27**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.60 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravel, dark grey, loose, sub-angular, moderately sorted.	slightly moist	0.0	B27/0.0-0.1	
		0.20									
		0.3			F	Fill	**FILL** - Silty Gravel, light brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	B27/0.3-0.4	
		0.4									
		0.5									
		0.60									
		0.7			CL	Natural	**Silty CLAY** - light brown, soft, medium plasticity, homogeneous.	moist	0.0	B27/0.6-0.7	
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.5									
		1.60									
		1.7					**Terminated at 1.60 m** Target depth.				
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B28**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.90 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B28/0.0-0.1	Metal, rubber, plastic.
		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			F	Fill	**FILL** - Silty Gravel, dark brown / grey, loose, sub-angular, poorly sorted, roadbase.	moist	0.0	B28/0.3-0.4	Railway sleeper at 0.6m.
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 **1.90**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B28/1.0-1.1	
		2.0 2.1 2.2					**Terminated at 1.90 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B29**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B29/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Silty CLAY** - light brown, soft, low plasticity, homogeneous.	moist	0.0	B29/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.20					**Terminated at 1.20 m** Target depth.				
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B30**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 **0.40**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	moist	0.0	B30/0.0-0.1	Metal pieces.
		0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 **1.40**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B30/0.3-0.4 B30/0.5-0.6	
		1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.40 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B31**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 **0.40**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B31/0.0-0.1	
									0.0	B31/0.3-0.4	Ash present 0.3-0.4m.
		0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 **1.40**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B31/0.4-0.5	
		1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.40 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B32**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.60 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Clay, dark brown, soft, low plasticity, trace sub-angular gravel.	moist	0.0	B32/0.0-0.1	
		0.2									
		0.3							0.0	B32/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.10									
		1.2			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B32/1.1-1.2	
		1.3									
		1.4									
		1.5									
		1.60									
		1.7					**Terminated at 1.60 m** Target depth.				
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B33**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B33/0.0-0.1	
		0.20									
		0.3			F	Fill	**FILL** - Silty Clay, dark brown, soft, low plasticity.	moist	0.0	B33/0.3-0.4	Trace ash.
		0.4									
		0.50									
		0.6			CL	Natural	**Silty CLAY** - light brown, soft, medium plasticity, homogeneous.	moist			
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.50									
		1.6					**Terminated at 1.50 m** Target depth.				
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B34**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B34/0.0-0.1	
		0.2									
		0.30									
		0.4			F	Fill	**FILL** - Silty Clay, dark brown, mottled red, soft, low plasticity.	moist	0.0	B34/0.3-0.4	
		0.5									
		0.6									
		0.70									
		0.8			CL	Natural	**Silty CLAY** - light brown, soft, medium plasticity, homogeneous.	moist			
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.50									
		1.6					**Terminated at 1.50 m** Target depth.				
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **21/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B35**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**21/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**21/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1–1.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B35/0.0-0.1	Brick, metal pins.
									0.0	B35/0.3-0.4	
		1.20									
		1.3–1.4			CL	Natural	**Silty CLAY** - light brown, soft, medium plasticity, homogeneous.	moist			
		1.50					**Terminated at 1.50 m** Target depth.				
		1.6–2.2									

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **21/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B36**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B36/0.0-0.1	Ash present at 0.2m.
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 **1.40**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B36/0.3-0.4	
		1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.40 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.
Water seepage into hole from adjacent roadbase.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B37**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 / 0.20			F	Fill	**FILL** - Silty Clay, dark brown, very soft, low plasticity, with sub-angular gravel, organic matter.	moist	0.0	B37/0.0-0.1	Metal pins, glass.
		0.3 / 0.4 / 0.50			CL	Natural	**Silty CLAY** - dark brown, soft, medium plasticity, homogeneous.	moist	0.0	B37/0.3-0.4	
		0.6 / 0.7 / 0.8 / 0.9 / 1.0 / 1.1 / 1.2 / 1.3 / 1.4 / 1.50			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, medium plasticity, homogeneous.	moist	0.0	B37/0.5-0.6	
		1.6 / 1.7 / 1.8 / 1.9 / 2.0 / 2.1 / 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Cavvanba Consulting Pty Ltd | 4/82 Centennial Circuit (PO Box 2191), Byron Bay, NSW 2481 | Tel.02 6685 7811 | www.cavvanba.com

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B38**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	slightly moist	0.0	B38/0.0-0.1	Metal, timber.
									0.0	B38/0.3-0.4	
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B38/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B39**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 *0.30*			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, roots.	moist	0.0	B39/0.0-0.1 QS11, QS12	
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 *1.30*			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B39/0.3-0.4	
		1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B40**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 *0.30*			F	Fill	**FILL** - Silty Gravel, light grey, loose, sub-angular, moderately sorted.	dry	0.0	B40/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 *1.30*			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B40/0.3-0.4	
		1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B41**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B41/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B41/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B42**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B42/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B42/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B43**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 *0.20* 0.3 0.4 0.5 0.6 0.7 0.8 0.9 *1.00*			F	Fill	**FILL** - Silty Clayey Gravel, dark grey, loose, sub-angular, moderately sorted.	moist	0.0	B43/0.0-0.1	Ash present.
					CL	Natural	**Silty CLAY** - light brown, mottled red, soft, medium plasticity, homogeneous.	moist	0.0	B43/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B44**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.40 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Ballast				
EX		0.1			F	Fill	**FILL** - Silty Clayey Gravel, dark brown, loose, sub-angular, moderately sorted.	slightly moist	0.0	B44/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy Silty CLAY** - dark brown, very soft, low plasticity, with sub-angular gravel.	moist	0.0	B44/0.3-0.4	
		0.4									
		0.5									
		0.60									
		0.7			CL		**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B44/0.6-0.7	
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.40									
		1.5					**Terminated at 1.40 m** Target depth.				
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B45**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 ***0.30***			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B45/0.0-0.1 QS17, QS18	Ash present.
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 ***1.30***			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B45/0.3-0.4	
		1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B46**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	very moist	0.0	B46/0.0-0.1	
		0.2									
		0.3							0.0	B46/0.3-0.4	Ballast present 0.3-0.4m.
		0.40									
		0.5			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, medium plasticity, homogeneous.	moist	0.0	B46/0.5-0.6	
		0.6									
		0.7									
		0.8									
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au
Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B47**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B47/0.0-0.1	Ash present 0.2-0.5m.
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B47/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B48**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0 0.0 0.0	B48/0.0-0.1 B48/0.1-0.11 B48/0.3-0.4	Thin layer of potential staining at 0.1-0.11m (10mm thick). Ash present 0.3-0.5m.
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B48/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B49**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 *0.40*			F	Fill	**FILL** - Gravelly Silty Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	B49/0.0-0.1	Ash present.
		0.5 0.6 0.7 0.8 0.9 *1.00*			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B49/0.3-0.4 B49/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **23/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**B50**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 0.3 **0.40**			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	dry	0.0	B50/0.0-0.1	Ash present 0.2-0.3m.
		0.5 0.6 0.7 0.8 0.9 1.0 1.1 **1.20**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	B50/0.3-0.4	
		1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.20 m** Target depth.		0.0	B50/0.5-0.6	

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Borehole Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**BHB51**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**N/A**		
Method:	**Hand Auger**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
HA		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	BHB51/0.0-0.1	Ash present 0.2-0.4m.
									0.0	BHB51/0.3-0.4	
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, low plasticity, homogeneous.	moist	0.0	BHB51/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

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Borehole Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**BHB52**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**N/A**		
Method:	**Hand Auger**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	BHB52/0.0-0.1	
									0.0	BHB52/0.3-0.4	
		0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, low plasticity, homogeneous.	moist	0.0	BHB52/0.5-0.6	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **23/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C01**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C01/0.0-0.1	
EX		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C01/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C02**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 – 0.2 – **0.30**			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	moist	0.0	C02/0.0-0.1	
EX		0.4 – 0.5 – 0.6 – 0.7 – 0.8 – 0.9 – **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C02/0.3-0.4	
		1.1 – 1.2 – 1.3 – 1.4 – 1.5 – 1.6 – 1.7 – 1.8 – 1.9 – 2.0 – 2.1 – 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C03**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel.	moist	0.0	C03/0.0-0.1 QS13, QS14	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C03/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **22/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C04**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C04/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 **1.30**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C04/0.3-0.4	
									0.0	C04/0.9-1.0	
		1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C05**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**22/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**22/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C05/0.0-0.1	
EX		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand.	moist	0.0	C05/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **22/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C06**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C06/0.0-0.1	
		0.20									
		0.3			F	Fill	**FILL** - Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, sub-angular gravel.	moist	0.0	C06/0.3-0.4	
		0.40									
		0.5			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand.	moist	0.0	C06/0.4-0.5	
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.20									
		1.3					**Terminated at 1.20 m** Target depth.				
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C07**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C07/0.0-0.1	
		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand.	moist	0.0	C07/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

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Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C08**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.2 0.3 0.4 **0.50**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel.	slightly moist	0.0	C08/0.0-0.1	Coal fragments
									0.0	C08/0.3-0.4	
		0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C08/0.5-0.6	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C09**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.30 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 – 0.30			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel, organic matter.	moist	0.0	C09/0.0-0.1	
EX		0.4 – 1.30			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C09/0.3-0.4	
		1.4 – 2.2					**Terminated at 1.30 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **23/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C10**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand.	moist	0.0	C10/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C10/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.50									
		1.6					**Terminated at 1.50 m** Target depth.				
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

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Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C11**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.20 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 / 0.20			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C11/0.0-0.1	
EX		0.3 – 1.1 / 1.20			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C11/0.3-0.4	
EX									0.0	C11/0.9-1.0	
		1.3 – 2.2					**Terminated at 1.20 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au
Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C12**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, trace sub-angular gravel, organic matter.	moist	0.0	C12/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C12/0.3-0.4	
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

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Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C13**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 0.3 0.4 0.5 **0.60**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C13/0.0-0.1 QS15, QS16	
EX		0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 **1.50**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C13/0.3-0.4	
		1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.50 m** Target depth.		0.0	C13/0.6-0.7	

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C14**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C14/0.0-0.1	
EX		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C14/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

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Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**C15**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

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Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Sandy Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	C15/0.0-0.1	
EX		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	C15/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **23/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**D01**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.50 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1			F	Fill	**FILL** - Sandy Silty Clay, dark brown, very soft, low plasticity, fine to medium grained sand, organic matter.	moist	0.0	D01/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	D01/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7							0.0	D01/0.7-0.8	
		0.8									
		0.9									
		1.0									
		1.1									
		1.2									
		1.3									
		1.4									
		1.50					**Terminated at 1.50 m** Target depth.				
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**D02**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
EX		0.1 0.20 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.00			F CL	Fill Natural	**FILL** - Silty Clay, light brown, very soft, low plasticity, organic matter. **Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	slightly moist moist	0.0 0.0	D02/0.0-0.1 D02/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Cavvanba Consulting Pty Ltd | 4/82 Centennial Circuit (PO Box 2191), Byron Bay, NSW 2481 | Tel.02 6685 7811 | www.cavvanba.com

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**D03**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1			F	Fill	**FILL** - Silty Clay, light brown, very soft, low plasticity, trace sub-angular gravel, organic matter.	dry	0.0	D03/0.0-0.1	
		0.20									
		0.3			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	D03/0.3-0.4	
		0.4									
		0.5									
		0.6									
		0.7									
		0.8									
		0.9									
		1.00									
		1.1					**Terminated at 1.00 m** Target depth.				
		1.2									
		1.3									
		1.4									
		1.5									
		1.6									
		1.7									
		1.8									
		1.9									
		2.0									
		2.1									
		2.2									

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **23/06/2022**
Checked By: Date:

Test Pit Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**D04**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**1.00 m**
Contractor:	**Divall's Earthmoving**		
Method:	**Excavation** Rig Type: **5t excavator**		
Date Started:	**23/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**23/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
EX		0.1 0.2 **0.30**			F	Fill	**FILL** - Silty Clay, light brown, very soft, low plasticity, trace sub-angular gravel.	dry	0.0	D04/0.0-0.1	
EX		0.4 0.5 0.6 0.7 0.8 0.9 **1.00**			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	D04/0.3-0.4	
		1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2					**Terminated at 1.00 m** Target depth.				

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.

REUMAD	Log Drawn By: Laurie White	Logged By: **Zac Laughlan**	Date: **23/06/2022**	
	Contact: laurie.white@reumad.com.au	Checked By:	Date:	

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW01**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**8.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger, Air Hammer** Rig Type: **Geoprobe 7822DT**		
Date Started:	**28/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**28/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Ballast				
HA		1.00			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0 0.0	MW01/0.0-0.1 MW01/0.3-0.4	Glass, cloth.
SFA		1.80			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist			
		2					**SILTSTONE** - light brown.	dry	0.0	MW01/2.0-2.1	
AH	▽	3									
		4							0.0	MW01/4.0-4.1	
		5							2.6	MW01/5.0-5.1	Slight hydrocarbon odour from 5.0m.
		6						wet	5.6 4.1	MW01/5.5-5.6 MW01/6.0-6.1	
		7									
		8.00					**Terminated at 8.00 m** Target depth.				
		9									

Well Details: Gat. 0.00; Grout 0.00–2.50; Bent. 2.50–3.50; Sand 3.50–4.00; Screen 4.00–8.00

Well Construction

Abandonment Method:

Additional Comments: Developed by bailer 29/06/2022.

Encountered Groundwater Level (m BGL) ▽ 5.500

Stabilised Groundwater Level (m BGL) ▼

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **28/06/2022**
Checked By: Date:

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW02**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**8.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger, Air Hammer** Rig Type: **Geoprobe 7822DT**		
Date Started:	**28/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**28/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments	Well Details	Well Construction
							Surface: Grass						
EX		1			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	moist	0.0	MW02/0.0-0.1			Gat.
									0.0	MW02/0.3-0.4			
									0.0	MW02/0.7-0.8 ACM1	Brick, potential ACM, glass at 0.7m.		
		1.50											Grout
SFA		2			CL	Natural	**Silty CLAY** - light brown, mottled red, soft, low plasticity, homogeneous.	moist	0.0	MW02/1.5-1.6		2.50	
		3							0.0	MW02/3.0-3.1			Bent.
		3.50										3.50	
		4					**SILTSTONE** - light brown.	dry				4.00	
	▽	5						wet	0.0	MW02/5.0-5.1			Sand
		6											Screen
AH		7							0.0	MW02/7.0-7.1			
		8.00											
							Terminated at 8.00 m Target depth.						
		9											

Abandonment Method:

Additional Comments: No odour or staining.
Developed by bailer 29/06/2022.

Encountered Groundwater Level (m BGL) ▽ 5.000

Stabilised Groundwater Level (m BGL) ▼

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **28/06/2022**
Checked By: Date:

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW03**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**6.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger** Rig Type: **Geoprobe 7822DT**		
Date Started:	**28/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**28/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
HA		0.50			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel, organic matter.	moist	0.0	MW03/0.0-0.1	
									0.0	MW03/0.3-0.4	
									0.0	MW03/0.5-0.6	
		1			CL		**Silty CLAY** - light brown, mottled red, soft, medium plasticity, homogeneous.	moist	0.0	MW03/1.0-1.1	
		1.80									
SFA		2				Natural	**SILTSTONE** - light brown.	dry	0.0	MW03/2.0-2.1	
		3							0.0	MW03/3.0-3.1	
	▽	4						wet	34.6	MW03/4.0-4.1	Hydrocarbon odour and staining from 4.0m.
		5							157.6	MW03/5.0-5.1	
		6.00							21.8	MW03/5.9-6.0	
							Terminated at 6.00 m Target depth.				
		7									
		8									
		9									

Well Details / Well Construction: Gat. 0.90 Bent. 1.90 2.00 Sand Screen

Abandonment Method:

Additional Comments: No anthropogenic material.
Developed by bailer 28/06/2022.

Encountered Groundwater Level (m BGL) ▽ 4.000

Stabilised Groundwater Level (m BGL) ▼

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **28/06/2022**
Checked By: Date:

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW04**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**7.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger** Rig Type: **Geoprobe 7822DT**		
Date Started:	**28/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**28/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
							Surface: Grass				
HA		0.40			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	MW04/0.0-0.1	
									0.0	MW04/0.3-0.4	Ash present 0.2-0.4m
		1			CL	Natural	**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	MW04/0.5-0.6	
		2.00							0.0	MW04/1.0-1.1	
SFA	▽	3			CL		**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist			
		4						wet	0.0	MW04/4.0-4.1	
		5									
		6									
		6.50					**SILTSTONE** - light brown, homogeneous.				
		7.00					**Terminated at 7.00 m** Target depth.		0.0	MW04/7.0-7.1	
		8									
		9									

Well Details / Well Construction: Gat. 0.50; Bent. 1.50; Sand 2.00; Screen

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material. Developed by bailer 28/06/2022.

Encountered Groundwater Level (m BGL) ▽ 4.000

Stabilised Groundwater Level (m BGL) ▼

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **28/06/2022**
Checked By: Date:

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW05**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**6.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger** Rig Type: **Geoprobe 7822DT**		
Date Started:	**29/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**29/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
HA		0.50			F	Fill	**FILL** - Silty Gravelly Clay, dark brown, very soft, low plasticity, sub-angular gravel.	moist	0.0	MW05/0.0-0.1	
									0.0	MW05/0.3-0.4	Ash present 0.2-0.5m.
							Sandy CLAY - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist	0.0	MW05/0.5-0.6	
		1			CL				0.0	MW05/1.0-1.1	
		2.00									
SFA						Natural	**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist	0.0	MW05/2.0-2.1	
		3							0.0	MW05/3.0-3.1	
		4			CL			wet	0.0	MW05/4.0-4.1	
		5									
		6.00							0.0	MW05/5.9-6.0	
							Terminated at 6.00 m Target depth.				
		7									
		8									
		9									

Well Details: Gat. 0.50, Bent. 1.50, Sand 2.00, Screen

Well Construction

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material.
Developed by bailer 29/06/2022.

Encountered Groundwater Level (m BGL) 4.000

Stabilised Groundwater Level (m BGL)

Log Drawn By:	Laurie White	Logged By:	**Zac Laughlan**	Date: **29/06/2022**
Contact:	laurie.white@reumad.com.au	Checked By:		Date:

Monitoring Well Log

Project Name:	**Detailed Site Investigation**	Hole ID.	**MW06**
Location / Site:	**Goulburn NSW**	Project Number:	**21075**
Client:	**Australian Rail Track Corporation**	Hole Depth:	**7.00 m**
Contractor:	**DrillWorx Services Pty Ltd**		
Method:	**Solid Flight Auger** Rig Type: **Geoprobe 7822DT**		
Date Started:	**29/06/2022**	Ground Level (mAHD):	----------
Date Completed:	**29/06/2022**	Easting:	----------
Sheet:	**1 of 1**	Northing:	----------
		Zone:	----------

CAVVANBA consulting

Method	Water Level	Depth (m)	RL (m)	Graphic Log	USCS Symbol	Material Type	Material Description	Moisture	Samples PID ppm	Samples ID No.	Observations / Comments
HA		0.20			F	Fill	**FILL** - Silty Clayey Gravel, dark brown / grey, loose, sub-angular, moderately sorted.	slightly moist	0.0	MW06/0.0-0.1 QS21, QS22	
		0.50			F				0.0	MW06/0.3-0.4	
					CL		**FILL** - Silty Clayey Gravel, light grey, loose, sub-angular, moderately.	slightly moist	0.0	MW06/0.5-0.6	
		1.00					**Sandy CLAY** - light brown, mottled red, soft, low plasticity, fine to medium grained sand, homogeneous.	moist			
SFA							**Silty CLAY** - light brown, mottled red, medium stiff, medium plasticity, homogeneous.	moist			
		2							0.0	MW06/2.0-2.1	
		3									
		4			CL	Natural			0.0	MW06/4.0-4.1	
	▽	5						wet	0.0	MW06/5.0-5.1	
		6									
		7.00							0.0	MW06/6.9-7.0	
							Terminated at 7.00 m Target depth.				

Well Details: Gat. 0.50 Bent. 1.50 Sand 2.00 Screen

Well Construction

Abandonment Method:

Additional Comments: No odour or staining. No anthropogenic material. Developed by bailer 29/06/2022.

Encountered Groundwater Level (m BGL) ▽ 5.000

Stabilised Groundwater Level (m BGL) ▼

REUMAD

Log Drawn By: Laurie White
Contact: laurie.white@reumad.com.au

Logged By: **Zac Laughlan** Date: **29/06/2022**
Checked By: Date:

Appendix D

Data Usability Assessment & Background To Data Usability

Data Usability Summary Assessment

A background to data usability is provided in this appendix. All site work was completed in accordance with standard Cavvanba sampling protocols, including a quality assurance/quality control (QA/QC) programme and standard operating procedures.

A data usability assessment was performed for the soil and groundwater data collected by Cavvanba, as summarised in the following tables:
- Table 1.1: Field QC samples summary,
- Table 1.2: Summary of field QA/QC, and
- Table 1.3: Summary of laboratory QA/QC.

This data usability assessment was conducted on laboratory batch number ES2222396, ES2222500, ES2225290, ES2223061, ES2225290 (primary – ALS), 901448-S, and 903722-W (inter-laboratory – Eurofins).

Table 1.1: Field QC samples summary

	Total samples	Field duplicates [1]	Inter-lab duplicates [1]	Trip spike	Trip blank	Rinsate
Soil						
BTEXN	59	5 (8.47%)	5 (8.47%)	1	1	1
TRH C_6 – C_{10}	59	5 (8.47%)	5 (8.47%)	1	1	1
TRH C_{10} – C_{40}	59	5 (8.47%)	5 (8.47%)	-	-	1
Metals[2]	162	9 (5.56%)	9 (5.56%)	-	-	1
PAHs	59	5 (8.47%)	5 (8.47%)	-	-	1
OCPs, OPPs & PCBs	29	3 (10.34%)	3 (10.34%)	-	-	-
Phenols	31	3 (9.68%)	3 (9.68%)	-	-	-
TCLP Lead	5	-	-	-	-	-
Groundwater						
BTEXN	6	1 (16.6%)	1 (16.6%)	1	1	1
TRH C_6 – C_{10}	6	1 (16.6%)	1 (16.6%)	1	1	1
TRH C_{10} – C_{40}	6	1 (16.6%)	1 (16.6%)	-	-	1
Metals[2]	6	1 (16.6%)	1 (16.6%)	-	-	1
PAHs	6	1 (16.6%)	1 (16.6%)	-	-	1

Notes:
1. Shows number of duplicate samples collected and the percentage of total samples analysed.
2. Arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury.
   – = not applicable, as trip spike/blank analysed for volatile compounds only.

Table 1.2: Summary of field QA/QC

Parameter	Complies	Comments [1]
Precision		
Standard operating procedures (SOPs) appropriate and complied with	Yes	Sampling was conducted in accordance with Cavvanba standard field operating procedures. The sampling methods complied with industry

Parameter	Complies	Comments [1]
		standards and guidelines.
Field duplicates	Partial	RPD[2] criteria < 30% – 50%, frequency ≥ 5%. RPD exceedances were reported for select metals and TRH >C_{16} - C_{34} between the primary and intra-laboratory duplicate for soil. The frequency of field duplicates were reported within the acceptable range.
Inter-laboratory duplicates	Partial	RPD[2] criteria < 30% – 50%, frequency ≥ 5%. RPD exceedances were reported for select metals between the primary and inter-laboratory duplicate select metals in soil and TRH fractions in groundwater. The frequency of inter-laboratory duplicates were reported within the acceptable range.
Accuracy		
Matrix spikes samples appropriate	Partial	≥ 1/media type.
Representativeness		
Sample collection - preservation	Yes	All samples were collected directly into laboratory supplied jars/bottles with no headspace. All samples were placed immediately into eskies containing ice.
Sample collection - sample splitting	Yes	Duplicate samples were split in the field by filling each container collectively (i.e. co-collected).
Field equipment calibrated	Yes	PID, groundwater multi-parameter probe and XRF calibration records are included as an appendix to the report.
Decontamination procedures	Yes	Soil samples were collected directly from the mechanical auger or excavator bucket, ensuring the sampling equipment had been decontaminated between each borehole and a new pair of disposable gloves worn between each sample collected. Groundwater samples were collected using single use disposable equipment. Decontamination of the interface probe was conducted between sampling each monitoring well. No other re-usable sampling equipment was used. The field sampler also wore new disposable nitrile gloves during sampling.
Rinsate samples	Yes	Required ≥ 1/field batch, < LORs. Rinsate samples were collected for all sample batches submitted to the laboratory. Analytical

Parameter	Complies	Comments [1]
		results were reported below the laboratory LOR.
Trip blanks	Yes	≥ 1/field batch (volatiles), < LORs. Trip blanks were collected for all sample batches submitted to the laboratory. Analytical results were reported below the laboratory LOR.
Trip spikes	Yes	≥ 1/field batch (volatiles), 70 - 130%, (recovery) or ≤ 30 - 50% (RPDs). Two trip spike samples were collected/analysed for soil and one trip spike for groundwater sample batches submitted to the laboratory. RPDs for all trip spikes were within acceptable limits.
Comparability		
Consistent sampling staff	Yes	All field work was completed Mr Zac Laughlan of Cavvanba Consulting.
Consistent weather/field conditions	Yes	No extreme weather events were reported during, before or following the investigation.
Completeness		
Sample logs and field data	Yes	Standard field sampling sheets were used during the investigation.
Chain of Custody	Yes	-

Notes:
1. For QC samples, specified frequency and acceptance criteria shown.
2. RPD = relative percentage difference.

Table 1.3: Summary of laboratory QA/QC

Parameter	Complies	Notes [1]
Precision		
Laboratory duplicates	Partial	Laboratory specified RPD range, frequency ≥ 10%. Laboratory duplicate recoveries were within the laboratory specified global acceptance criteria with the exception of select metals reported by the intra-laboratory. The frequency of laboratory duplicates was reported within the acceptable range with the exception of PAH/Phenols and semi volatile TRH fractions in water within laboratory batch ES2222500.

Parameter	Complies	Notes [1]
Accuracy		
Surrogate spikes	Partial	Organics by GC, RPD criteria of 70% - 130%. Surrogate spike recoveries were within the laboratory specified global acceptance criteria with the exception of select phenols reported by the intra-laboratory. The frequency of surrogate spikes was within the acceptable range.
Matrix spikes analysis appropriate	Partial	RPD criteria of ≥ 70% - 130%. Matrix spike recoveries were within the laboratory specified global acceptance criteria with the exception of select metals reported by the intra-laboratory. The frequency of matrix spike analysis was reported within the acceptable range.
Laboratory control samples (LCSs)	Yes	RPD criteria of 70% - 130%, frequency of ≥ 1/lab batch Laboratory control sample recoveries were within the laboratory specified global acceptance criteria. The frequency of laboratory control samples was within the acceptable range.
Certified reference material (CRM)	n/a	-
Representativeness		
Sample condition	Yes	-
Holding times	Partial	Analysis holding time exceedances were reported for select analytes in soils by the intra-laboratory.
Laboratory blanks	Yes	≥ 1/lab batch, < LORs.
Comparability		
NATA accredited laboratory	Yes	ALS Environmental Pty Ltd is a NATA accredited laboratory (accreditation number 825). The inter-laboratory is also NATA accredited, Eurofins Scientific Pty Ltd (accreditation number 1261).
NEPM methods or similar	Yes	ALS and Eurofins describe their in-house laboratory methods are referenced from NEPC, ASTM and modified USEPA/APHA documents.
Limits of reporting (LORs) consistent and appropriate	Yes	-

Parameter	Complies	Notes [1]
Completeness		
Sample receipt	Yes	-
Laboratory Reports	Yes	-

Notes:
1. For QC samples, acceptance criteria shown. Acceptance criteria can vary based on analyte, statistical data and laboratory specific methods. Laboratory specified relates to detected concentrations based on LORs, e.g. result < 10 x LOR = no limit, 10 – 20 x LOR = 0 - 50%, > 20 x LOR = 0 - 20%. See laboratory reports for specific details.

Summary and discussion

The following issues were identified with the data:

Precision

RPD exceedances were reported for soil between the primary sample and the intra- and inter-laboratory duplicates for a number of select metals and TRH (>C_{16} – C_{34}). These exceedances are likely due the inherent variability, and the resultant heterogeneity of the fill material sampled. This is further confirmed by the laboratory through the identification of matrix spike exceedances for lead and zinc. It is also noted that the concentrations reported are only marginally above the limit of reporting, therefore only minor variations in concentrations result in exaggerated RPDs.

There were no RPD exceedances reported for groundwater between the primary sample and the intra- laboratory sample. However, a single RPD exceedance was reported between the primary sample and the inter-laboratory duplicate for select TRH fractions in groundwater.

For all samples, the higher concentration has been reported and used for decision making purposes. The reported RPD exceedances are not considered to detract from the precision of the dataset or affect the conclusions drawn within the report.

Laboratory duplicate RPD exceedances were reported for select metals within laboratory batches ES2222396 and ES2222500. In both cases, it was reported by the primary laboratory that the RPD exceeded LOR based limits. These exceedances reported by the primary laboratory are not considered to detract from the overall precision of the dataset nor affect decision making.

Laboratory duplicate recovery frequencies were reported to be within the acceptable ranges with the exception of PAH/Phenols and semi-volatile TRH factions in water within laboratory batch ES2222500. The reported laboratory duplicate frequency outliers are not considered to detract from the precision of the dataset.

Accuracy

The accuracy of the data is confirmed by the laboratory control sample recoveries within the acceptance criteria. Matrix spike outliers were unable to be determined for lead and zinc within samples TPB05_0.3-0.4 and TPB25_0.3-0.4, where the matrix spike recovery could not be determined as the background level was greater than or equal to four times the spike level. However, an acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference, which is considered by the laboratory to be a more appropriate indicator. These outliers reported by the laboratory are not considered to affect the overall accuracy of the data and/or the conclusions of the report.

The frequency of matrix spike analysis was reported within the acceptable range by both the primary and secondary laboratories.

Representativeness

Holding time exceedances were reported for moisture content within select soil samples submitted for analysis. However, these are not considered to affect the representativeness of the dataset. A holding time exceedance was also reported for BTEXN within the laboratory soil trip spike control sample, however all trip spike recoveries were within the specified RPDs, as such, the holding time exceedance is not considered to affect the representativeness of the data collected.

Trip blanks and rinsate blanks were below the laboratory LORs.

Comparability

The data is considered to be acceptable, with experienced sampling staff used, NATA accredited laboratories used and all LORs below the relevant criteria.

Completeness

Laboratory and field documentation is considered to be complete.

XRF screening quality control

The XRF screening QA/QC process was undertaken in accordance with USEPA method 6200. The following processes were undertaken during the XRF assessment to ensure the quality of the data collected. The results of quality control sampling were targeted at the primary contaminant of concern, being lead. The quality control protocol as outlined below, has been adopted from US EPA method 6200.

- *Energy calibration check – To determine whether the instrument is operating with resolution and stability tolerances, an energy calibration check should be run. The energy calibration check determines whether the characteristic x-ray lines are shifting, which would indicate drift within the instrument.*

  Daily system checks and internal energy calibrations were undertaken at the beginning of each day prior to using the XRF, as recommended by the supplier of the instrument.

- *Blank samples – Two types of blank samples should be analysed, instrument blanks and method blanks.*

  An instrument blank is used to verify that no contamination exists in the spectrometer or on the probe window. The instrument blank should be analysed on each working day before and after analyses are conducted and once per every twenty samples. No element concentrations above the established lower limit of detection should be found in the instrument blank.

  A method blank is used to monitor for laboratory induced contaminants or interferences. The method blank can be 'clean' silica sand or lithium carbonate that undergoes the same preparation procedures as the samples. A method blank must be analysed at least daily. If the method blank does not contain the target analyte at a level that interferes with the project-specific data quality objectives then the method blank would be considered acceptable.

  A blank reference sample (silicon dioxide, SiO_2) was analysed at the start and end of the day and at a frequency of every 1 in 10 samples. All blank analysis results were found to be less than the limit of detection (LOD) of the analyser. The analyser window was also cleaned and examined before each location to prevent any cross contamination and to ensure the window was not damaged prior to sample collection.

- *Calibration verification checks – A calibration verification check sample is used to check the accuracy of the instrument and to assess the stability and consistency of the analysis for the analytes of interest. A check sample should be analysed at the beginning of each working day, during active sample analyses, and at the end of each working day. The measured value for each target analyte should be within +/- 20% of the true value for the calibration verification check to be acceptable.*

  Precision measurements – The precision method is monitored by analysing a sample with low, moderate or high concentrations of target analytes. The frequency of precision measurements will depend on the data objectives for the data. A minimum of one precision sample should be run per day, and each precision sample should be analysed seven times in replicate. Determining method precision for analytes near the site action levels can be extremely important, should the results be used in an enforcement action, therefore selection of at least one sample with target analyte concentrations at or near the site action levels is recommended. The relative standard deviation (RSD) of the sample mean is used to assess method precision. For XRF data to be considered adequately precise, the RSD should not be greater than 20 %.

One certified reference material (CRM) was analysed to verify that the instrument calibration was acceptable. This CRM was chosen based on the data quality objectives of the investigation. This sample was assessed at the beginning of the day and at a frequency of 1 in 10 samples.

The analyser precision was calculated using data from the reference sample and the precision RSD equation provided in the USEPA method 6200. The RSD for the reference result was calculated 3%. Based on the calculated RSD percentage the data is considered adequately precise, as defined by the USEPA method 6200 and presented in Table 1.4, below.

The certificate of analysis for the chosen CRM has been provided as an appendix to the report. A dwell time of 60 seconds was utilised to provide the required precision necessary for the preliminary XRF screening assessment.

Whilst calibration verification checks and precision measurements were undertaken by Cavvanba in accordance with USEPA method 6200 and instrument specifications, the XRF was used for the purposes of field screening only.

Table 1.4: Measured lead concentrations against expected CRM results

CRM sample	CRM[1]	Measured concentration (mg/kg)	Expected concentration (mg/kg)	Relative Percent Difference (RPD)[2]
NIST-1	180-472 NIST 2710	5677	5532	3
		5779	5532	4
		5711	5532	3
		5763	5532	4
		5748	5532	4
		5800	5532	5
		5709	5532	3
NIST-2		5679	5532	3
NIST-3		5751	5532	4
		5012	5532	10
		5688	5532	2.8
		5583	5532	1
		5181	5532	7
		5554	5532	0.4
		5734	5532	4
NIST-4		5663	5532	2
NIST-5		5707	5532	3
NIST-6		5383	5532	2.7
		5589	5532	1
		5589	5532	1
		5079	5532	9
		5751	5532	4
		5641	5532	2
		5719	5532	3

CRM sample	CRM[1]	Measured concentration (mg/kg)	Expected concentration (mg/kg)	Relative Percent Difference (RPD)[2]
NIST-7		5814	5532	5
NIST-8		5711	5532	3
NIST-9		5703	5532	3
NIST-10		5598	5532	1
NIST-11		5653	5532	2
		5648	5532	2
		5560	5532	1
		5579	5532	1
		5712	5532	3
		5636	5532	2
		5753	5532	4
NIST-12		5833	5532	5
NIST-13		5731	5532	4
NIST-14		5668	5532	2
Calculated RSD		***3.2 %***		

Notes:
1. Reference material provided by XRF supplier.
2. RPD = relative percentage difference.

- *The lower limits of detection should be established from actual measured performance based on spike recoveries in the matrix of concern or from acceptable methos performance on a certified reference material of the appropriate matrix and within the appropriate calibration range for the application.*

  This has been addressed within 'factors affecting XRF analyses', as discussed below.

- *Confirmatory samples – The comparability of the XRF analysis is determined by submitting XRF analysed samples at a laboratory. The method of confirmatory analysis must meet the project and XRF measurement data quality objectives. The confirmatory samples must be splits of the well homogenised sample material. A minimum of 1 in 20 samples should be submitted for confirmatory analysis, and the samples should be selected from the lower, middle and upper range of concentrations measured by the XRF, including at or near the site action levels. The results of the confirmatory analysis should be evaluated with a least squares linear regression analysis. The correlation coefficient (r) for the results should be 0.7 or greater for the XRF data to be considered screening level data. If the r is 0.9 or greater and inferential statistics indicate the XRF data and the confirmatory data are statistically equivalent at a 99 percent confidence level, the data could potentially meet definitive level data criteria.*

  A data comparison was not undertaken between XRF screening data and laboratory results for the project. This was due to the variance in sampling methodologies between the XRF screening level assessment and standard laboratory analysis. XRF samples were not removed from the ground, dried, sieved and homogenised prior to being assessed. Therefore, the results reported by the XRF analyser were deemed to not be directly comparable to the reported laboratory analytical data and were not utilised in the final decision-making process, but rather used as a field screening tool to guide the assessment process.

- In addition to the above quality control protocol, field duplicate screening samples were also collected in-situ at a frequency of at least 1 in 20 samples. This was undertaken to provide additional precision data and assess sample heterogeneity in the field. The results are provided in Table 1.5, below.

Table 1.5: Results of lead concentrations from additional duplicate readings

Sample identification	Field duplicate results (mg/kg)
t1e	17
t1e-1	21
b04	366
b04-1	386
b14	208
b14-1	193
b24	141
b24-1	192
b34	379
b34-1	563
b44	791
b44-1	740
t4e	66
t4e-1	85
c10	15
c10-1	<LOD
b51	108
b51-1	102
t5e	37
t5e-1	38

Factors affecting XRF analysis

Interferences in XRF analysis can be caused by a number of factors that can introduce uncertainties in sample results. These interferences can affect the accuracy and precision of the analyser. Therefore, it is important to consider these factors and how they may affect the reported results.

- *Sample heterogeneity* – Soil heterogeneity has the most significant influence on the accuracy of XRF results. The variance in accuracy from soil heterogeneity is largely due to the total area and depth of material assessed by the XRF analyser window. The effects of sample heterogeneity can be minimalised through sample preparation (sieving and homogenising) prior to assessing the soil. The approach to the XRF investigation was in-situ, therefore this was not possible, however duplicate samples were collected during the assessment to assist in the identification of the effects of sample heterogeneity.

- *Spectral interferences* – Spectral interferences can occur when the analytical spectral line from one element overlaps with another. There is the potential for arsenic and

lead peaks to overlap which can potentially over-report the concentration of the contaminant of concern. The analyser utilised for the current screening assessment (Niton™ XL3t 500) uses a 50kV X-ray source which can assist in providing adequate resolution to correctly assess spectral lines on a number of elements.

- *Soil moisture* – The soil moisture content will affect the XRF reading and can cause results of the analysis to be under reported. This is due to the water in material being assessed absorbing the X-rays from the analyser. Effects of moisture can be minimalised by drying the sample prior to analysis and also applying moisture correction to the results, however as sampling was conducted in-situ this was not possible. XRF sample locations were collected, where possible, from visually dry locations across the site to minimise the effects of soil moisture.

- *Influence of XRF contact angle* – Incorrect and inconsistent placement of the XRF analyser on the ground surface can cause attenuation of the X-rays and lower the accuracy of the results. To eliminate this error during the current screening assessment, it was ensured that the XRF analyser was placed parallel with the ground surface and was always in contact throughout the 60 second dwell time.

Background to Data Usability

1.0 Introduction

Information generated from environmental investigations requires some statement in regard to the usability of the data[1], and therefore quality assurance (QA) and quality control (QC) are an integral part of the analysis and interpretation of environmental data. QA/QC used in contaminated sites investigations is briefly reviewed in this section.

Quality assurance involves all of the actions, procedures, checks and decisions undertaken to ensure the representativeness and integrity of samples, and accuracy and reliability of analytical results (NEPC as amended 2013). Quality control is the component of QA which monitors and measures the effectiveness of other procedures by the comparison of these measures to previously decided objectives.

There are various components of QA/QC which address the operation of the laboratories and the routine procedures conducted to achieve a minimum level of quality. Examples of QA components include sample control, data transfer, instrument calibration, staff training, etc. Examples of QC components include the measurement of samples to access the quality of reagents and standards, cleanliness of apparatus, accuracy and precision of methods and instruments, etc. Generally, the management of laboratory QA issues is addressed through accreditation by the National Association of Testing Authorities (NATA), or similar, and monitoring of these issues is not addressed on a project by project basis.

On a project specific basis, those involved in collecting, assessing or reviewing the relevant data should ensure the minimum level of QA is conducted. Appropriate numbers and types of QC samples should be collected and analysed, both field QC samples and laboratory QC samples. While minimum levels of QA/QC are specified in some guidelines, e.g. NSW EPA 1994, AS 4482.1-1997, NEPC as amended 2013, the minimum level required may vary between projects, based on site and project specific aspects. This means that the minimum specified requirements may not be sufficient for a particular project. As described in the NEPM (NEPC 1999):

> *As a general rule, the level of required QC is that which adequately measures the effects of all possible influences upon sample integrity, accuracy and precision, and is capable of predicting their variation with a high degree of confidence.*

2.0 PARCC parameters

Following receipt of laboratory analytical results, data validation is conducted to determine if the specified acceptance criteria have been met. This is conducted to ensure that all data, and subsequent decisions based on that data, are technically sound. Data quality is typically discussed in terms of precision, accuracy, representativeness, comparability and completeness. These are referred to as the PARCC parameters[2]. Field QA/QC and laboratory QC is described below within the PARCC framework.

[1] To avoid confusion with the data quality objectives (DQOs) process, the term data usability is used rather than data quality.

[2] The PARCC parameters are sometimes referred to as data quality indicators (DQIs).

2.1 Precision

2.1.1 Duplicates

Precision is a measure of the reproducibility of results under a given set of conditions and is assessed on the basis of agreement between a set of duplicate results obtained from duplicate analyses. The precision of a duplicate determination is measured by comparing the difference between the two samples to the average of the two samples, expressed as a relative percentage difference (RPD).

The determination is:

$$RPD = (P-D)/(P+D/2) \times 100$$

P = primary sample

D = duplicate sample

Three types of duplicates are commonly used:
- field duplicates are used to measure the precision of the sampling and analytical process;
- inter-laboratory duplicates are used to check on the analytical performance of the primary laboratory; and
- laboratory duplicates are used to measure the precision of the analytical process.

2.1.2 Field Duplicates

Field duplicates (or blind replicates) are collected from the same location and submitted to the laboratory for analyses, as a primary sample. The sample nomenclature is such that the laboratory is not aware which sample is a duplicate. The RPD is calculated to determine the degree of repeatability (precision) of results obtained from the duplicate analysis. Where results are below the practical quantification limit (PQLs) or limits of reporting (LORs), i.e. non-detects, RPDs cannot be calculated. Where one result is detected, the results are considered to conform when the detected result is less than five times the PQL/LOR.

The PQL/LOR is the lowest concentration of an analyte that can be determined with acceptable precision (repeatability) and accuracy under the test conditions. The PQL/LOR is usually calculated as five times the lower limit of detection (or method detection limit). However, adjustments in PQLs/LORs may be required due to interference from high contaminant concentrations.

As environmental samples can exhibit a high degree of heterogeneity, field duplicates often exceed the acceptance criterion, particularly if the samples are co-collected, for example, because of the potential for losing volatiles during sample splitting. It is generally accepted that before results which fail the acceptance criterion are described as due to low concentrations or sample heterogeneity, the sample should be re-analysed. This may not be necessary when the analytical results are significantly less than the landuse criteria.

2.1.3 Inter-laboratory duplicates

Inter-laboratory duplicates (or split samples) are field duplicates which are sent to a second laboratory and analysed for the same analytes and, as far as possible, by the same methods. These provide a check on the analytical performance of the primary laboratory.

2.1.4 Laboratory Duplicates

Laboratory duplicates (or check samples) are field samples which are split by the laboratory and thereafter treated as separate samples. The RPD is calculated to determine the degree of repeatability (precision) of results obtained from the duplicate analysis.

USEPA (1994) specifies that for inorganics, if the results for laboratory duplicates fall outside of the recommended control limits for a particular analyte, all results for that analyte, in all associated samples of the same matrix, should be qualified as an estimated quantity. For organics, USEPA (1999) does not specify recommended actions for laboratory duplicates.

2.2 Accuracy

Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. Inasmuch as the true sample concentrations are not known, the determination of accuracy is achieved through the analysis of known reference materials or assessed by the analysis of matrix spikes. Spiking of reference material into the actual sample matrix is the preferred technique because it provides a measure of the matrix effects on the analytical recovery.

Accuracy is measured in terms of percentage recovery as defined by:

$$\%R = ((SSR - SR) / SA) \times 100$$

%R = percentage recovery spike
SSR = spiked sample result
SR = sample result
SA = spike added

2.2.1 Matrix spikes/matrix spike duplicates

These are samples prepared in the laboratory by dividing a sample into two aliquots and then spiking each with identical concentrations of specific analytes. The matrix spike (MS) and matrix spike duplicate (MSD) are then analysed separately and the results compared to determine the accuracy and precision of the analytes.

2.2.2 Surrogate spikes

Surrogate spikes provide an indication of analytical accuracy. They are used only for analyses which use gas chromatography and are compounds which are similar to the organic analytes of interest in chemical composition, extraction and chromatography, but which are not normally found in field samples. Surrogates are generally spiked into all sample aliquots prior to preparation and analysis. If the surrogate spike recovery does not meet the prescribed acceptance criteria, the samples should be re-analysed.

2.2.3 Laboratory control samples

Laboratory control samples (quality control check samples) are laboratory prepared samples of an appropriate clean matrix (i.e. sand or distilled water) which are spiked with known concentrations of specific analytes. The laboratory control sample (LCS) is then analysed and the results are used to assess sample preparation and analytical accuracy, free of matrix effects. Certified reference material (CRM) is another form of LCS, and involves the analysis of a known standard as part of the laboratory batch, e.g. British Columbia sediment samples for analysis of metals.

2.3 Representativeness

Representativeness refers to the degree to which the samples reflect the site specific conditions. It is primarily dependent on the design and implementation of the sampling program, with representativeness of the data being partially ensured by the avoidance of cross-contamination, adherence to sample handling and analytical methods, use of field duplicates, ensuring that samples do not exceed holding times prior to analysis, use of chain-of-custody forms and other appropriate documentation.

There are a number of QC samples which can be collected to assist in the qualification of representativeness, including:

2.3.1 Rinsate blanks

Used to determine if sampling equipment has been adequately decontaminated to ensure that cross-contamination between samples has not occurred. The frequency for rinsate blanks is one per piece of equipment per day (AS 4482.1-1997), however it should be noted that cross-contamination will bias samples upwards, and the frequency should therefore be at the investigators discretion.

2.3.2 Trip blanks

Used only when volatile organics are sampled to determine if transport in motor vehicles or similar has resulted in contamination of the samples. For trip blanks, a sufficient number should be analysed to allow the representativeness of the sampling to be determined. However, it should be noted that cross-contamination will bias samples upwards, and the frequency should therefore be at the investigators discretion.

2.3.3 Trip spikes

Used only when volatile organics are sampled to attempt to quantify loss of volatiles during the analytical process. For trip spikes, a sufficient number of samples should be analysed to allow qualification of the likely loss of volatiles during the field sampling.

2.3.4 Laboratory blanks

Laboratory blanks (or method blanks, or analysis blanks) are used to verify that contaminants are not introduced into the samples during sample preparation and analysis. The NEPM (NEPC 1999) specifies that laboratory blanks should be conducted at a frequency of "at least one per process batch". The acceptance criterion for laboratory blanks is non-detect at the PQL/LOR.

2.4 Comparability

Comparability is a qualitative parameter designed to express the confidence with which one data set may be compared with another, including established criteria. Comparability is maintained by using consistent methods and ensuring that PQLs/LORs are below the relevant criteria.

2.5 Completeness

Quality control sample completeness is defined as the number of QC samples which should have been analysed, compared to the actual number analysed. If the appropriate number of QC samples are not analysed with each matrix or sample batch, then the data reviewer should use professional judgement to determine if the associated sample data should be qualified.

Completeness also refers to the complete and correct inclusion of field/sample documentation and laboratory documentation.

2.5.1 QC sample frequency and criteria

Based on EPA made or approved guidelines, the following QC samples are required for all contaminated site investigations, unless otherwise specified as part of the data quality objectives (DQOs) process review. All data to be used for validation should conform as a minimum to the requirements specified, regardless of minimum sample size.

Quality control sample	Frequency	Results [1]
Precision		
Field duplicates.	≥ 5%	≤ 30 - 50% [2]
Inter-laboratory duplicates.	≥ 5%	≤ 30 - 50% [2]
Laboratory duplicates.	≥ 10%	Lab specified [3]
Accuracy		
Surrogate spikes.	Organics by GC	70 – 130% [4]
Matrix spikes (MSs).	≥ 1/media type	70 - 130% [5]
Laboratory control samples (LCSs).	≥ 1/lab batch	70 - 130% [6]
Certified reference material (CRM).	LCS for metals	Lab specified [7]
Representativeness		
Rinsate samples.	≥ 1/field batch	< LOR
Trip blanks.	≥ 1/field batch (volatiles)	< LOR
Trip spikes.	≥ 1/field batch (volatiles)	70 - 130%, ≤ 30 - 50% [8]
Laboratory blanks.	≥ 1/lab batch	< LOR

Notes:
1. Where results are laboratory specified, the laboratory analytical reports should be consulted for specific information.
2. Relative percentage differences (RPDs) for field duplicates from AS 4482.1 (1997).
3. RPDs for laboratory duplicates specified by the laboratory. Based on the magnitude of the results compared to the level of reporting (LOR), e.g. ALS: result < 10 x LOR = no limit, 10 – 20 x LOR = 0-50%, > 20 x LOR = 0-20%. LabMark: < 5 x LOR = 0-100%, 5 – 10 x LOR = 0-75%, > 10 x LOR = 0-50% or 0-30% for metals.
4. Surrogate recoveries specified by laboratory based on global acceptance criteria or dynamic recovery limits based on statistical evaluation of actual laboratory data.
5. MS recoveries specified by laboratory based on global acceptance criteria.
6. LCS recoveries specified by laboratory based on global acceptance criteria or dynamic recovery limits based on statistical evaluation of actual laboratory data.
7. CRM recoveries specified by laboratory based on global acceptance criteria.
8. Trip spike results are specified as either recoveries or RPDs.

3.0 References

Australian New Zealand Environment and Conservation Council (1996) *Guidelines for the laboratory analysis of contaminated soils*. ANZECC, Canberra, ACT.

Australian Standard AS 4482.1 (2005) *Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and Semi-volatile compounds.* Standards Australia, Homebush, NSW.

National Environment Protection Council (NEPC) (1999) *National Environmental Protection (Assessment of Site Contamination) Measure 1999* (as amended April 2013). National Environment Protection Council, Canberra.

NSW Environment Protection Authority (1994) *Contaminated Sites: Guidelines for Assessing Service Station Sites.* NSW EPA, Chatswood, NSW.

NSW Environment Protection Authority (1997) *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites.* NSW EPA, Chatswood, NSW.

United States Environmental Protection Agency, Contract Laboratory Program (1994) *National Functional Guidelines for Inorganic Data Review.* USEPA, Washington, DC.

United States Environment Protection Agency, Contract Laboratory Program (1999) *National Functional Guidelines for Organic Data Review.* USEPA, Washington, DC.

Appendix E

Photographic Log

Photograph 1
View north from south-western corner of Area A towards Braidwood Road and the existing stockpiled material.

Photograph 2
View south-west within Area A towards existing stockpiled material and Sloane Street.

Photograph 3
View north-west towards the existing stockpiled material within the northern portion of Area A.

Photograph 4
View south-west towards a small stockpile of material located within the western portion of Area A.

Photograph 5
View north-west during the excavation of TPA04, adjacent to the concrete entrance ramp in the western portion of Area A.

Photograph 6
Hydrocarbon staining in soils within TPA04.

Photograph 7
An example of the soil profile identified within Area A at test pit location, TPA08.

Photograph 8
ACM identified in soil at depth of 0.7 m at MW02 m.

Photograph 9
View south towards railway sidings located within the northern portion of Area B.

Photograph 10
View south from test pit location TPB14, located within the northern portion of Area B.

Photograph 11
View south-east from the central portion of Area B towards the Goulburn Roundhouse.

Photograph 12
View north-east from the southern portion of Area B towards the Goulburn Roundhouse.

Photograph 13
An example of the soil profile within the eastern portion of Area B at test pit location, TPB05.

Photograph 14
View west towards test pit location TPB12 and Sloane Street

Photograph 15
An example profile of the soil profile at monitoring well location MW05, within the central portion of Area B (increasing in depth from left to right).

Photograph 16
An example of potential staining within the soil profile at test pit location TPB48, in the southern portion of Area B.

Photograph 17
View south towards filled area and the location of identified surface ACM (ACM04) within Area B.

Photograph 18
An example of the ACM collected from the central – western portion of Area B (ACM03).

Photograph 19
View south towards a stockpile of soil and anthropogenic materials located in the central portion of Area B, adjacent to the former JS Hollingsworth site (Area E).

Photograph 20
View southeast within Area C towards the railway corridor.

Photograph 21
View northwest within Area C towards Sloane Street.

Photograph 22
View south towards the operational Caltec Fuel Depot. Natural material identified within Area C, within test pit TPC14.

Photograph 23
View west within Area D towards Sloane Street.

Photograph 24
View east within Area D towards the railway corridor and the Hume Highway underpass.

Appendix F

Laboratory Analytical Certificates

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2223061**	Page	: 1 of 20
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
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Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 30-Jun-2022 17:07
Order number	: 21075	Date Analysis Commenced	: 04-Jul-2022
C-O-C number	: ----	Issue Date	: 12-Jul-2022 15:21
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 64		
No. of samples analysed	: 29		

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*
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, 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.

- 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.
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- 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.
- 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.
- EP080: Positive results for sample ES2223061_23 was confirmed by re-analysis.
- EP071: Results of sample MW03_5.0-5.1 have been confirmed by re-extraction and re-analysis.
- EP080: Result for MW04 has been confirmed.
- **EA200 Legend**
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- 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: Analysis of asbestos from swabs and tapes is not covered under the current scope of NATA accreditation.
- 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.
- EP080: Sample TRIP SPIKE contains volatile compounds spiked into the sample containers prior to dispatch from the laboratory. BTEXN compounds spiked at 20 ug/L.
- EA200: N/A - Not Applicable

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW01_2.0-2.1	MW01_5.5-5.6	MW01_6.0-6.1	MW02_3.0-3.1	MW03_0-0.1
			Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-004	ES2223061-007	ES2223061-008	ES2223061-013	ES2223061-016
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	7.1	3.1	3.6	16.1	7.9
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	10	<5	<5	23	62
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	2
Chromium	7440-47-3	2	mg/kg	52	20	12	28	19
Copper	7440-50-8	5	mg/kg	45	37	22	21	212
Lead	7439-92-1	5	mg/kg	37	8	9	103	273
Nickel	7440-02-0	2	mg/kg	42	44	28	32	14
Zinc	7440-66-6	5	mg/kg	70	34	18	37	423
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	----	<0.1
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
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	----	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW01_2.0-2.1	MW01_5.5-5.6	MW01_6.0-6.1	MW02_3.0-3.1	MW03_0-0.1
			Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-004	ES2223061-007	ES2223061-008	ES2223061-013	ES2223061-016
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	----	<0.5	----	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	----	<0.5	----	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	<1	----	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	MW01_2.0-2.1	MW01_5.5-5.6	MW01_6.0-6.1	MW02_3.0-3.1	MW03_0-0.1
				Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-004	ES2223061-007	ES2223061-008	ES2223061-013	ES2223061-016
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	<0.5	----	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	<2	----	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	<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
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	<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
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	**0.6**	**0.6**	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	**1.2**	**1.2**	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	<10	<10	----	<10
C10 - C14 Fraction	----	50	mg/kg		----	<50	<50	----	<50
C15 - C28 Fraction	----	100	mg/kg		----	<100	<100	----	<100
C29 - C36 Fraction	----	100	mg/kg		----	<100	<100	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	<50	<50	----	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	<10	<10	----	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	MW01_2.0-2.1	MW01_5.5-5.6	MW01_6.0-6.1	MW02_3.0-3.1	MW03_0-0.1
				Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-004	ES2223061-007	ES2223061-008	ES2223061-013	ES2223061-016
					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	----	<10
>C10 - C16 Fraction	----	50	mg/kg		----	<50	<50	----	<50
>C16 - C34 Fraction	----	100	mg/kg		----	<100	<100	----	<100
>C34 - C40 Fraction	----	100	mg/kg		----	<100	<100	----	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	<50	<50	----	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	<50	<50	----	<50
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	<0.5	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	<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
ortho-Xylene	95-47-6	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
^ Total Xylenes	----	0.5	mg/kg		----	<0.5	<0.5	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg		----	<0.2	<0.2	----	<0.2
Naphthalene	91-20-3	1	mg/kg		----	<1	<1	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**80.2**	----	----	**103**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		----	**66.3**	----	----	**87.0**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		----	**80.0**	----	----	**108**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	**82.7**	**85.3**	----	**78.8**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	**93.2**	**95.7**	----	**88.1**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	**62.0**	**60.5**	----	**60.5**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	**102**	**105**	----	**102**
Anthracene-d10	1719-06-8	0.5	%		----	**92.8**	**91.5**	----	**87.9**
4-Terphenyl-d14	1718-51-0	0.5	%		----	**97.0**	**98.5**	----	**94.6**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	**87.9**	**85.3**	----	**79.4**
Toluene-D8	2037-26-5	0.2	%		----	**82.4**	**78.0**	----	**82.5**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	MW01_2.0-2.1	MW01_5.5-5.6	MW01_6.0-6.1	MW02_3.0-3.1	MW03_0-0.1
				Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-004	ES2223061-007	ES2223061-008	ES2223061-013	ES2223061-016
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**95.2**	**95.5**	**----**	**88.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW03_4.0-4.1	MW03_5.0-5.1	MW4_0-0.1	MW5_0-0.1	MW5_4.0-4.1
			Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-022	ES2223061-023	ES2223061-025	ES2223061-031	ES2223061-037
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	13.2	5.6	24.6	14.0	16.1
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	6	34	26	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	4	7	<1
Chromium	7440-47-3	2	mg/kg	59	45	20	19	29
Copper	7440-50-8	5	mg/kg	19	46	194	369	12
Lead	7439-92-1	5	mg/kg	15	15	1140	1440	16
Nickel	7440-02-0	2	mg/kg	27	52	24	16	8
Zinc	7440-66-6	5	mg/kg	19	39	1620	1650	15
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.2	0.4	0.2	<0.1
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	----	----	----	----
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	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW03_4.0-4.1	MW03_5.0-5.1	MW4_0-0.1	MW5_0-0.1	MW5_4.0-4.1
			Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-022	ES2223061-023	ES2223061-025	ES2223061-031	ES2223061-037
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	MW03_4.0-4.1	MW03_5.0-5.1	MW4_0-0.1	MW5_0-0.1	MW5_4.0-4.1
				Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-022	ES2223061-023	ES2223061-025	ES2223061-031	ES2223061-037
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	----	----	----
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	**0.6**	----	----	----
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	**0.6**	----	----	----
^ 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	**160**	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	**450**	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**610**	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	**12**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW03_4.0-4.1	MW03_5.0-5.1	MW4_0-0.1	MW5_0-0.1	MW5_4.0-4.1
			Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-022	ES2223061-023	ES2223061-025	ES2223061-031	ES2223061-037
				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	**12**	----	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	**300**	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	**320**	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	**620**	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	**300**	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	----	----	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	----	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**106**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**96.5**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**108**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**81.9**	**86.3**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**94.2**	**99.8**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**66.0**	**70.1**	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**102**	**107**	----	----	----
Anthracene-d10	1719-06-8	0.5	%	**92.6**	**97.4**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**97.1**	**99.9**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**80.9**	**95.1**	----	----	----
Toluene-D8	2037-26-5	0.2	%	**82.8**	**82.3**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	MW03_4.0-4.1	MW03_5.0-5.1	MW4_0-0.1	MW5_0-0.1	MW5_4.0-4.1
				Sampling date / time	28-Jun-2022 00:00	28-Jun-2022 00:00	28-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-022	ES2223061-023	ES2223061-025	ES2223061-031	ES2223061-037
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**91.7**	**90.7**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	MW6_0-0.1	MW6_5.0-5.1	TRIP BLANK	TRIP SPIKE	TSC
			Sampling date / time	29-Jun-2022 00:00	29-Jun-2022 00:00	27-Jun-2022 00:00	27-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-039	ES2223061-044	ES2223061-057	ES2223061-059	ES2223061-064
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**4.2**	**13.4**	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**25**	<5	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	**7**	**39**	----	----	----
Copper	7440-50-8	5	mg/kg	**91**	**13**	----	----	----
Lead	7439-92-1	5	mg/kg	**126**	**12**	----	----	----
Nickel	7440-02-0	2	mg/kg	**7**	**17**	----	----	----
Zinc	7440-66-6	5	mg/kg	**160**	**16**	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
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	**6.4**	**7.4**
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	**1.8**	**2.3**
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	**9.4**	**11.8**
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	**4.5**	**5.4**
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	**13.9**	**17.2**
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	**22.1**	**26.9**
Naphthalene	91-20-3	1	mg/kg	----	----	<1	<1	<1
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**79.0**	**77.5**	**72.8**
Toluene-D8	2037-26-5	0.2	%	----	----	**91.2**	**88.8**	**84.2**
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	**99.4**	**97.2**	**86.9**

Analytical Results

Sub-Matrix: SOLID (Matrix: SOLID)			Sample ID	ACM01	ACM02	ACM03	ACM04	----
			Sampling date / time	27-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00	30-Jun-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2223061-060	ES2223061-061	ES2223061-062	ES2223061-063	--------
				Result	Result	Result	Result	----
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples								
Asbestos Detected	1332-21-4	0.1	g/kg	**Yes**	**Yes**	**Yes**	**Yes**	**----**
Asbestos Type	1332-21-4	-	--	**Ch**	**Ch**	**Ch**	**Ch + Am**	**----**
Asbestos (Trace)	1332-21-4	5	Fibres	**N/A**	**N/A**	**N/A**	**N/A**	**----**
Sample weight (dry)	----	0.01	g	**51.8**	**25.8**	**28.9**	**212**	**----**
Synthetic Mineral Fibre	----	0.1	g/kg	**No**	**No**	**No**	**No**	**----**
Organic Fibre	----	0.1	g/kg	**No**	**No**	**No**	**No**	**----**
APPROVED IDENTIFIER:	----	-	--	**A. SMYLIE**	**A. SMYLIE**	**A. SMYLIE**	**A. SMYLIE**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MW01	MW02	MW03	MW04	MW05
			Sampling date / time	30-Jun-2022 00:00	30-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2223061-046	ES2223061-047	ES2223061-048	ES2223061-049	ES2223061-050
				Result	Result	Result	Result	Result
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	**0.002**	<0.001	<0.001	<0.001	**0.001**
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	**0.002**
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	**0.001**
Lead	7439-92-1	0.001	mg/L	**0.005**	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L	**0.007**	<0.001	**0.004**	**0.008**	<0.001
Zinc	7440-66-6	0.005	mg/L	**0.012**	<0.005	<0.005	<0.005	<0.005
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	1.0	µg/L	**6.2**	<1.0	**30.1**	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L	**2.2**	<1.0	**1.6**	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L	**2.0**	<1.0	**1.0**	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L	**10.4**	<0.5	**32.7**	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	**1290**	<20	**910**	<20	<20
C10 - C14 Fraction	----	50	µg/L	**500**	<50	**790**	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	**350**	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ **C10 - C36 Fraction (sum)**	----	50	µg/L	**500**	<50	**1140**	<50	<50

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW01	MW02	MW03	MW04	MW05
				Sampling date / time	30-Jun-2022 00:00	30-Jun-2022 00:00	29-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-046	ES2223061-047	ES2223061-048	ES2223061-049	ES2223061-050
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		**1210**	<20	**870**	<20	<20
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		**1190**	<20	**710**	<20	<20
>C10 - C16 Fraction	----	100	µg/L		**500**	<100	**880**	<100	<100
>C16 - C34 Fraction	----	100	µg/L		<100	<100	**120**	<100	<100
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		**500**	<100	**1000**	<100	<100
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		**480**	<100	**800**	<100	<100
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		**3**	<1	**138**	<1	<1
Toluene	108-88-3	2	µg/L		<2	<2	**6**	**3**	<2
Ethylbenzene	100-41-4	2	µg/L		**16**	<2	**20**	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	<2
^ **Total Xylenes**	----	2	µg/L		<2	<2	<2	<2	<2
^ **Sum of BTEX**	----	1	µg/L		**19**	<1	**164**	**3**	<1
Naphthalene	91-20-3	5	µg/L		**15**	<5	**82**	<5	<5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**18.4**	**21.3**	**21.1**	**21.5**	**20.1**
2-Chlorophenol-D4	93951-73-6	1.0	%		**45.3**	**49.8**	**51.7**	**52.9**	**48.4**
2.4.6-Tribromophenol	118-79-6	1.0	%		**54.3**	**47.1**	**66.1**	**50.8**	**35.4**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**60.8**	**53.6**	**53.7**	**57.5**	**52.3**
Anthracene-d10	1719-06-8	1.0	%		**66.8**	**81.1**	**78.0**	**64.2**	**73.4**
4-Terphenyl-d14	1718-51-0	1.0	%		**59.2**	**70.0**	**67.1**	**68.4**	**62.3**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**116**	**113**	**131**	**112**	**112**
Toluene-D8	2037-26-5	2	%		**112**	**109**	**122**	**104**	**105**
4-Bromofluorobenzene	460-00-4	2	%		**115**	**109**	**125**	**106**	**106**

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	MW06	QW01	RB2	TRIP BLANK	TRIP SPIKE
				Sampling date / time	30-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00	27-Jun-2022 00:00	27-Jun-2022 00:00
					ES2223061-051	ES2223061-052	ES2223061-055	ES2223061-056	ES2223061-058
					Result	Result	Result	Result	Result
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	**0.001**	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	----	----	----
Chromium	7440-47-3	0.001	mg/L		**0.003**	<0.001	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	<0.001	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	**0.003**	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.018**	<0.005	----	----	----
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	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	----	----	----
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	**29.7**	<1.0	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	**1.6**	<1.0	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<1.0	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW06	QW01	RB2	TRIP BLANK	TRIP SPIKE
				Sampling date / time	30-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00	27-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-051	ES2223061-052	ES2223061-055	ES2223061-056	ES2223061-058
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<1.0	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L		<0.5	**31.3**	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L		<0.5	<0.5	<0.5	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	**910**	<20	<20	----
C10 - C14 Fraction	----	50	µg/L		<50	**770**	<50	----	----
C15 - C28 Fraction	----	100	µg/L		<100	**340**	<100	----	----
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	**1110**	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	**880**	<20	<20	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	**720**	<20	<20	----
>C10 - C16 Fraction	----	100	µg/L		<100	**850**	<100	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	**850**	<100	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	**770**	<100	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	**137**	<1	<1	**17**
Toluene	108-88-3	2	µg/L		<2	**7**	<2	<2	**16**
Ethylbenzene	100-41-4	2	µg/L		<2	**20**	<2	<2	**16**
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	**16**
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	**17**
^ Total Xylenes	----	2	µg/L		<2	<2	<2	<2	**33**
^ Sum of BTEX	----	1	µg/L		<1	**164**	<1	<1	**82**
Naphthalene	91-20-3	5	µg/L		<5	**84**	<5	<5	**17**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**20.2**	**18.5**	**19.6**	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**49.1**	**47.6**	**48.5**	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**47.5**	**63.5**	**35.7**	----	----
EP075(SIM)T: PAH Surrogates									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW06	QW01	RB2	TRIP BLANK	TRIP SPIKE
				Sampling date / time	30-Jun-2022 00:00	29-Jun-2022 00:00	30-Jun-2022 00:00	27-Jun-2022 00:00	27-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2223061-051	ES2223061-052	ES2223061-055	ES2223061-056	ES2223061-058
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
2-Fluorobiphenyl	321-60-8	1.0	%		**54.1**	**52.0**	**58.7**	**----**	**----**
Anthracene-d10	1719-06-8	1.0	%		**77.8**	**74.9**	**84.5**	**----**	**----**
4-Terphenyl-d14	1718-51-0	1.0	%		**65.9**	**63.1**	**76.9**	**----**	**----**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**116**	**127**	**116**	**107**	**113**
Toluene-D8	2037-26-5	2	%		**109**	**122**	**107**	**86.5**	**104**
4-Bromofluorobenzene	460-00-4	2	%		**109**	**125**	**104**	**92.3**	**105**

Analytical Results

Descriptive Results

Sub-Matrix: **SOLID**

Method: Compound	Sample ID - Sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples		
EA200: Description	ACM01 - 27-Jun-2022 00:00	Three pieces of asbestos cement sheeting approximately 80x55x5mm.
EA200: Description	ACM02 - 29-Jun-2022 00:00	One piece of asbestos cement sheeting approximately 70x50x5mm.
EA200: Description	ACM03 - 30-Jun-2022 00:00	One piece of asbestos cement sheeting approximately 100x60x5mm.
EA200: Description	ACM04 - 30-Jun-2022 00:00	One piece of asbestos cement sheeting approximately 100x100x10mm.

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
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	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

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	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

Inter-Laboratory Testing

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

(SOLID) EA200: AS 4964 - 2004 Identification of Asbestos in bulk samples

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2223061**	Page	: 1 of 21
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 30-Jun-2022
Order number	: 21075	Date Analysis Commenced	: 04-Jul-2022
C-O-C number	: ----	Issue Date	: 12-Jul-2022
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 64		
No. of samples analysed	: 29		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Alana Smylie	Team Leader - Asbestos	Newcastle - Asbestos, Mayfield West, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, 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.

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4443160)									
ES2222045-002	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	13	13	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	19	20	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	10	9	16.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	50	48	2.9	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	16	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	76	80	4.3	0% - 50%
ES2222996-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	21	17	18.2	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	5	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	50	52	2.5	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	15	14	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	20	17	16.1	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4443162)									
ES2223061-016	MW03_0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	2	2	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	19	26	31.3	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	14	15	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	62	69	9.6	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	212	233	9.6	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	273	287	5.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	423	456	7.5	0% - 20%
ES2223095-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	18	17	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: 4443162) - continued									
ES2223095-003	Anonymous	EG005T: Nickel	7440-02-0	2	mg/kg	20	20	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	8	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	26	24	5.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	18	19	8.7	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	58	56	3.2	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4443172)									
ES2222045-006	Anonymous	EA055: Moisture Content	----	0.1	%	10.7	9.0	17.6	0% - 50%
ES2222996-006	Anonymous	EA055: Moisture Content	----	0.1	%	26.9	26.5	1.3	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4443173)									
ES2223061-023	MW03_5.0-5.1	EA055: Moisture Content	----	0.1	%	5.6	5.1	10.0	No Limit
ES2223693-001	Anonymous	EA055: Moisture Content	----	0.1	%	13.4	12.8	4.4	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4443161)									
ES2222045-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222996-003	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: 4443163)									
ES2223061-016	MW03_0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.3	0.3	0.0	No Limit
ES2223095-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4441379)									
ES2222750-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4441378)									
ES2223243-001	Anonymous	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: 4441378) - continued									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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: 4441378)									
ES2223243-001	Anonymous	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

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: 4441378) - continued									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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
EP075(SIM)A: Phenolic Compounds (QC Lot: 4441377)									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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

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: 4441377) - continued									
ES2222750-001	Anonymous	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: 4441377)									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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

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: 4441377) - continued									
ES2222750-001	Anonymous	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4440890)									
ES2223061-007	MW01_5.5-5.6	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2223242-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4441376)									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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: 4444735)									
ES2222996-009	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2223811-009	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4440890)									
ES2223061-007	MW01_5.5-5.6	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2223242-001	Anonymous	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: 4441376)									
ES2223243-001	Anonymous	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
ES2222750-001	Anonymous	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: 4444735)									
ES2222996-009	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2223811-009	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 4440890)									
ES2223061-007	MW01_5.5-5.6	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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 4440890) - continued									
ES2223061-007	MW01_5.5-5.6	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
ES2223242-001	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
EP080: BTEXN (QC Lot: 4444735)									
ES2222996-009	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
ES2223811-009	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

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4441526)									
ES2222918-005	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.017	0.017	0.0	0% - 50%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.063	0.058	8.4	0% - 50%
ES2222917-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.018	0.016	11.2	0% - 50%

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 (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4441526) - continued									
ES2222917-001	Anonymous	EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.024	0.024	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4441529)									
ES2223078-005	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	43.1	44.2	2.5	0% - 20%
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.004	0.004	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
ES2223061-050	MW05	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 4438934)									
ES2222976-004	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	0.084	0.082	2.8	0% - 20%
		EG020A-T: Lead	7439-92-1	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	0.001	0.002	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	2.08	2.05	1.3	0% - 20%
ES2222976-001	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	0.066	0.067	2.1	0% - 20%
		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	<0.001	<0.001	0.0	No Limit
		EG020A-T: Zinc	7440-66-6	0.005	mg/L	0.021	0.020	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 4441527)									
ES2222495-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2223061-050	MW05	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4436331)									
ES2222983-003	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2222999-007	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit

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 (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4436674)									
ES2223061-051	MW06	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	<1.0	0.0	No Limit
ES2223089-001	Anonymous	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	<1.0	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4436675)									
ES2223061-051	MW06	EP071: C15 - C28 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	µg/L	<50	<50	0.0	No Limit
		EP071: C29 - C36 Fraction	----	50	µg/L	<50	<50	0.0	No Limit
ES2223089-001	Anonymous	EP071: C15 - C28 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	µg/L	<50	<50	0.0	No Limit

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 (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4436675) - continued									
ES2223089-001	Anonymous	EP071: C29 - C36 Fraction	----	50	µg/L	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4442886)									
ES2222495-003	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2223061-055	RB2	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4436675)									
ES2223061-051	MW06	EP071: >C10 - C16 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: >C16 - C34 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
ES2223089-001	Anonymous	EP071: >C10 - C16 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: >C16 - C34 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	µg/L	<100	<100	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4442886)									
ES2222495-003	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2223061-055	RB2	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 4442886)									
ES2222495-003	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
ES2223061-055	RB2	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 Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4443160)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	93.7	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	101	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	102	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	95.3	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	94.9	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	93.4	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	89.3	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4443162)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	108	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	124	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	127	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	110	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	111	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	114	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	103	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4443161)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	82.8	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4443163)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	100	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4441379)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	104	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 4441378)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	97.8	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.6	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	97.3	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	100	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.9	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.2	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.8	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	106	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	103	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	95.5	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	101	66.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 4441378) - continued								
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.3	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	108	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	107	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.8	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	90.0	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	106	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	94.8	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4441378)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	101	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	100	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	97.8	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	94.8	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	99.1	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.6	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	100	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	100	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.9	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	102	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	95.8	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	107	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	95.1	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	103	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 4441377)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	104	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	104	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	99.0	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	104	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	69.0	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	107	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	102	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	97.6	70.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 4441377) - continued								
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	96.2	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	93.4	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	44.7	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4441377)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	107	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	115	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	102	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	112	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	106	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	96.2	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	113	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	109	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	107	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	107	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	106	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	102	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	96.4	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	92.0	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	97.1	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4440890)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	88.8	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4441376)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	100	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	93.5	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	94.0	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4444735)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	98.3	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4452610)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	80.6	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4440890)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	88.3	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4441376)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	91.6	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	103	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: 4444735)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4444735) - continued								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	96.6	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4452610)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	82.5	68.4	128
EP080: BTEXN (QCLot: 4440890)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	96.3	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.5	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	97.7	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	97.3	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	97.9	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	94.8	63.0	119
EP080: BTEXN (QCLot: 4444735)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	97.7	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.2	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	96.5	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	100	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	101	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	93.0	63.0	119
EP080: BTEXN (QCLot: 4452610)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	82.4	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	82.6	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	82.0	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	81.0	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	79.8	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	80.7	63.0	119

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4441526)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	95.5	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	93.8	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	94.5	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	93.7	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.7	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	94.9	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	99.9	81.0	117

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4441529)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	95.3	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	91.7	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	93.7	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	93.6	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	94.5	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	91.7	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	92.9	81.0	117
EG020T: Total Metals by ICP-MS (QCLot: 4438934)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	87.4	82.0	114
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	86.6	84.0	112
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	89.6	86.0	116
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	86.5	83.0	118
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	89.2	85.0	115
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	88.4	84.0	116
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	85.5	79.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 4441527)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	90.9	83.0	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4436331)								
EG035T: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	91.5	77.0	111
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4436674)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	67.2	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	70.0	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	71.1	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	71.8	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	80.1	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	71.4	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	84.1	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	84.3	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	79.4	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	81.7	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	81.7	61.7	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	79.3	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	80.3	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	75.2	59.9	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	74.4	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	75.7	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4436675)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4436675) - continued								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	82.1	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	87.3	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	85.8	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4442886)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	75.9	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4436675)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	66.7	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	102	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	80.5	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4442886)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	75.6	75.0	127
EP080: BTEXN (QCLot: 4442886)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	90.3	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	93.4	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	95.1	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	92.6	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	97.9	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	100	70.0	120

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	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4443160)							
ES2222045-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	95.3	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.4	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	94.7	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	96.9	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.4	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.8	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	105	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4443162)							
ES2223061-016	MW03_0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	89.6	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	94.8	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4443162) - continued							
ES2223061-016	MW03_0-0.1	EG005T: Chromium	7440-47-3	50 mg/kg	96.8	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	99.2	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	97.2	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	96.9	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	87.0	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4443161)							
ES2222045-002	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	105	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4443163)							
ES2223061-016	MW03_0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	101	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4441379)							
ES2222750-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	110	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 4441378)							
ES2222750-001	Anonymous	EP068: gamma-BHC	58-89-9	0.5 mg/kg	90.9	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	88.5	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	83.8	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	99.5	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	81.8	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	82.4	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4441378)							
ES2222750-001	Anonymous	EP068: Diazinon	333-41-5	0.5 mg/kg	81.0	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	89.7	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	93.5	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	98.6	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	85.2	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 4441377)							
ES2222750-001	Anonymous	EP075(SIM): Phenol	108-95-2	10 mg/kg	104	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	105	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.5	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	100	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	55.5	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4441377)							
ES2222750-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	98.1	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	112	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4440890)							
ES2223061-007	MW01_5.5-5.6	EP080: C6 - C9 Fraction	----	32.5 mg/kg	81.0	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4441376)							

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: 4441376) - continued							
ES2222750-001	Anonymous	EP071: C10 - C14 Fraction	----	480 mg/kg	78.4	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	107	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	109	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4444735)							
ES2222996-009	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	105	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4440890)							
ES2223061-007	MW01_5.5-5.6	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	80.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4441376)							
ES2222750-001	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	76.1	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	109	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	121	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4444735)							
ES2222996-009	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	101	70.0	130
EP080: BTEXN (QCLot: 4440890)							
ES2223061-007	MW01_5.5-5.6	EP080: Benzene	71-43-2	2.5 mg/kg	76.3	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	80.0	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	83.1	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	81.6	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	85.0	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	94.2	70.0	130
EP080: BTEXN (QCLot: 4444735)							
ES2222996-009	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	97.0	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	92.0	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	92.2	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	91.5	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.9	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	80.1	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4441526)							
ES2222494-002	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	91.1	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	92.8	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	91.7	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4441526) - continued							
ES2222494-002	Anonymous	EG020A-F: Copper	7440-50-8	1 mg/L	92.0	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	92.5	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	90.6	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	90.4	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4441529)							
ES2223061-049	MW04	EG020A-F: Arsenic	7440-38-2	1 mg/L	95.7	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	92.6	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	91.1	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	93.1	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	91.3	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	90.8	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	92.0	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 4438934)							
ES2222494-002	Anonymous	EG020A-T: Arsenic	7440-38-2	1 mg/L	83.7	70.0	130
		EG020A-T: Cadmium	7440-43-9	0.25 mg/L	84.5	70.0	130
		EG020A-T: Chromium	7440-47-3	1 mg/L	88.2	70.0	130
		EG020A-T: Copper	7440-50-8	1 mg/L	85.2	70.0	130
		EG020A-T: Lead	7439-92-1	1 mg/L	115	70.0	130
		EG020A-T: Nickel	7440-02-0	1 mg/L	83.5	70.0	130
		EG020A-T: Zinc	7440-66-6	1 mg/L	81.5	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 4441527)							
ES2222495-001	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	86.0	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4436331)							
ES2222983-004	Anonymous	EG035T: Mercury	7439-97-6	0.01 mg/L	92.1	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4436674)							
ES2223061-051	MW06	EP075(SIM): Acenaphthene	83-32-9	20 µg/L	91.1	70.0	130
		EP075(SIM): Pyrene	129-00-0	20 µg/L	78.5	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4436675)							
ES2223061-051	MW06	EP071: C10 - C14 Fraction	----	200 µg/L	115	70.0	130
		EP071: C15 - C28 Fraction	----	250 µg/L	120	71.0	130
		EP071: C29 - C36 Fraction	----	200 µg/L	125	67.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4442886)							
ES2222495-003	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	87.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4436675)							
ES2223061-051	MW06	EP071: >C10 - C16 Fraction	----	250 µg/L	116	70.0	130
		EP071: >C16 - C34 Fraction	----	350 µg/L	130	75.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4436675) - continued							
ES2223061-051	MW06	EP071: >C34 - C40 Fraction	----	150 µg/L	111	67.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4442886)							
ES2222495-003	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	83.8	70.0	130
EP080: BTEXN (QCLot: 4442886)							
ES2222495-003	Anonymous	EP080: Benzene	71-43-2	25 µg/L	93.7	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	91.8	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	94.2	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	92.7	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	97.7	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	95.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2223061**	Page	: 1 of 10
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 30-Jun-2022
Site	: ----	Issue Date	: 12-Jul-2022
Sampler	: ZAC LAUGHLAN	No. of samples received	: 64
Order number	: 21075	No. of samples analysed	: 29

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

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

Outliers : Frequency of Quality Control Samples

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

Outliers : Analysis Holding Time Compliance

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
EP080: BTEXN						
Soil Glass Jar - Unpreserved						
TSC	12-Jul-2022	11-Jul-2022	1	12-Jul-2022	11-Jul-2022	1

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
MW03_0-0.1	**27-Jun-2022**	**----**	----	----	**06-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EA055)							
MW01_2.0-2.1, MW01_5.5-5.6, MW01_6.0-6.1, MW02_3.0-3.1, MW03_4.0-4.1, MW03_5.0-5.1, MW4_0-0.1	**28-Jun-2022**	**----**	----	----	**06-Jul-2022**	12-Jul-2022	✓
Soil Glass Jar - Unpreserved (EA055)							
MW5_0-0.1, MW5_4.0-4.1, MW6_0-0.1, MW6_5.0-5.1	**29-Jun-2022**	**----**	----	----	**06-Jul-2022**	13-Jul-2022	✓
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	24-Dec-2022	✓	**07-Jul-2022**	24-Dec-2022	✓
Soil Glass Jar - Unpreserved (EG005T)							
MW01_2.0-2.1, MW01_5.5-5.6, MW01_6.0-6.1, MW02_3.0-3.1, MW03_4.0-4.1, MW03_5.0-5.1, MW4_0-0.1	**28-Jun-2022**	**06-Jul-2022**	25-Dec-2022	✓	**07-Jul-2022**	25-Dec-2022	✓
Soil Glass Jar - Unpreserved (EG005T)							
MW5_0-0.1, MW5_4.0-4.1, MW6_0-0.1, MW6_5.0-5.1	**29-Jun-2022**	**06-Jul-2022**	26-Dec-2022	✓	**07-Jul-2022**	26-Dec-2022	✓

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							
Soil Glass Jar - Unpreserved (EG035T)							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	25-Jul-2022	✓	**07-Jul-2022**	25-Jul-2022	✓
Soil Glass Jar - Unpreserved (EG035T)							
MW01_2.0-2.1, MW01_5.5-5.6, MW01_6.0-6.1, MW02_3.0-3.1, MW03_4.0-4.1, MW03_5.0-5.1, MW4_0-0.1	**28-Jun-2022**	**06-Jul-2022**	26-Jul-2022	✓	**07-Jul-2022**	26-Jul-2022	✓
Soil Glass Jar - Unpreserved (EG035T)							
MW5_0-0.1, MW5_4.0-4.1, MW6_0-0.1, MW6_5.0-5.1	**29-Jun-2022**	**06-Jul-2022**	27-Jul-2022	✓	**07-Jul-2022**	27-Jul-2022	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066)							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP066)							
MW01_5.5-5.6, MW03_4.0-4.1	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
MW01_5.5-5.6, MW03_4.0-4.1	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
MW01_5.5-5.6, MW03_4.0-4.1	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
MW01_5.5-5.6, MW03_4.0-4.1	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
MW03_0-0.1	**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
MW01_5.5-5.6, MW01_6.0-6.1, MW03_4.0-4.1, MW03_5.0-5.1	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓

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								
Soil Glass Jar - Unpreserved (EP071)								
MW03_0-0.1		**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
MW03_0-0.1		**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TRIP BLANK		**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP071)								
MW01_5.5-5.6,	MW01_6.0-6.1,	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
MW03_4.0-4.1,	MW03_5.0-5.1							
Soil Glass Jar - Unpreserved (EP080)								
MW01_5.5-5.6,	MW01_6.0-6.1,	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**08-Jul-2022**	12-Jul-2022	✓
MW03_4.0-4.1,	MW03_5.0-5.1							
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP071)								
MW03_0-0.1		**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
MW03_0-0.1		**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TRIP BLANK		**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP071)								
MW01_5.5-5.6,	MW01_6.0-6.1,	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**07-Jul-2022**	15-Aug-2022	✓
MW03_4.0-4.1,	MW03_5.0-5.1							
Soil Glass Jar - Unpreserved (EP080)								
MW01_5.5-5.6,	MW01_6.0-6.1,	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**08-Jul-2022**	12-Jul-2022	✓
MW03_4.0-4.1,	MW03_5.0-5.1							
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
MW03_0-0.1		**27-Jun-2022**	**06-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TRIP BLANK,	TRIP SPIKE	**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**08-Jul-2022**	11-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TSC		**27-Jun-2022**	**12-Jul-2022**	11-Jul-2022	✘	**12-Jul-2022**	11-Jul-2022	✘
Soil Glass Jar - Unpreserved (EP080)								
MW01_5.5-5.6,	MW01_6.0-6.1,	**28-Jun-2022**	**06-Jul-2022**	12-Jul-2022	✓	**08-Jul-2022**	12-Jul-2022	✓
MW03_4.0-4.1,	MW03_5.0-5.1							

Matrix: **SOLID**

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

Matrix: **SOLID**

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 bulk samples							
Snap Lock Bag - ACM/Asbestos Grab Bag (EA200) ACM01	**27-Jun-2022**	**----**	----	----	**04-Jul-2022**	24-Dec-2022	✓
Snap Lock Bag - ACM/Asbestos Grab Bag (EA200) ACM02	**29-Jun-2022**	**----**	----	----	**04-Jul-2022**	26-Dec-2022	✓
Snap Lock Bag - ACM/Asbestos Grab Bag (EA200) ACM03, ACM04	**30-Jun-2022**	**----**	----	----	**04-Jul-2022**	27-Dec-2022	✓

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
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) MW03, MW04, QW01	**29-Jun-2022**	**----**	----	----	**06-Jul-2022**	26-Dec-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) MW01, MW02, MW05, MW06	**30-Jun-2022**	**----**	----	----	**06-Jul-2022**	27-Dec-2022	✓
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) RB2	**30-Jun-2022**	**05-Jul-2022**	27-Dec-2022	✓	**05-Jul-2022**	27-Dec-2022	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) MW03, MW04, QW01	**29-Jun-2022**	**----**	----	----	**07-Jul-2022**	27-Jul-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) MW01, MW02, MW05, MW06	**30-Jun-2022**	**----**	----	----	**07-Jul-2022**	28-Jul-2022	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035T) RB2	**30-Jun-2022**	**----**	----	----	**05-Jul-2022**	28-Jul-2022	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) MW03, MW04, QW01	**29-Jun-2022**	**04-Jul-2022**	06-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓
Amber Glass Bottle - Unpreserved (EP075(SIM)) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**04-Jul-2022**	07-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓

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
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) MW03, MW04, QW01	**29-Jun-2022**	**04-Jul-2022**	06-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓
Amber Glass Bottle - Unpreserved (EP071) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**04-Jul-2022**	07-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) TRIP BLANK	**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	11-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW03, MW04, QW01	**29-Jun-2022**	**07-Jul-2022**	13-Jul-2022	✓	**07-Jul-2022**	13-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**07-Jul-2022**	14-Jul-2022	✓	**07-Jul-2022**	14-Jul-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) MW03, MW04, QW01	**29-Jun-2022**	**04-Jul-2022**	06-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓
Amber Glass Bottle - Unpreserved (EP071) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**04-Jul-2022**	07-Jul-2022	✓	**07-Jul-2022**	13-Aug-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) TRIP BLANK	**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	11-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW03, MW04, QW01	**29-Jun-2022**	**07-Jul-2022**	13-Jul-2022	✓	**07-Jul-2022**	13-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**07-Jul-2022**	14-Jul-2022	✓	**07-Jul-2022**	14-Jul-2022	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) TRIP BLANK, TRIP SPIKE	**27-Jun-2022**	**07-Jul-2022**	11-Jul-2022	✓	**07-Jul-2022**	11-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW03, MW04, QW01	**29-Jun-2022**	**07-Jul-2022**	13-Jul-2022	✓	**07-Jul-2022**	13-Jul-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW01, MW02, MW05, MW06, RB2	**30-Jun-2022**	**07-Jul-2022**	14-Jul-2022	✓	**07-Jul-2022**	14-Jul-2022	✓

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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	7	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	39	**10.26**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**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	3	39	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**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	3	39	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**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	2	39	**5.13**	**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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	4	36	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	20	**10.00**	**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)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	36	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**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)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	36	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**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)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	36	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**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

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
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).
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 (SnCl2) (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 SnCl2 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)
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).
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).
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.
Asbestos Identification in Bulk Solids	EA200	SOLID	In house: Referenced to AS 4964 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. 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 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.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 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).
Total Mercury by FIMS	EG035T	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(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 SnCl2 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
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.
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.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2223061**

Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: drew@cavvanba.com	E-mail	: helen.simpson@alsglobal.com
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Facsimile	: +61 02 6685 5083	Facsimile	: +61-2-8784 8500
Project	: 21075	Page	: 1 of 5
Order number	: 21075	Quote number	: ES2021CAVCON0010 (SY/412/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: ZAC LAUGHLAN		

Dates

Date Samples Received	: 30-Jun-2022 17:07	Issue Date	: 02-Jul-2022
Client Requested Due Date	: 08-Jul-2022	Scheduled Reporting Date	: **08-Jul-2022**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: ----	Temperature	: 4.6'c - Ice present
Receipt Detail	:	No. of samples received / analysed	: 59 / 28
		No. of samples NOT collected	4

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
- **Sample QW02 forwarded to EUROFINS.**
- **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 MW4_7.0-7.1 was not received due to the following reason: Sample was not received
- Sample MW4_4.0-4.1 was not received due to the following reason: Sample was not received
- Sample MW5_2.0-2.1 was not received due to the following reason: Sample was not received
- Sample MW6_0.5-0.6 was not received due to the following reason: Sample was not received
- **Asbestos analysis will be conducted by ALS Newcastle.**
- 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.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2223061-001	27-Jun-2022 00:00	MW01_0-0.1	✓				
ES2223061-002	27-Jun-2022 00:00	MW01_0.3-0.4	✓				
ES2223061-003	27-Jun-2022 00:00	MW01_1.0-1.1	✓				
ES2223061-004	28-Jun-2022 00:00	MW01_2.0-2.1		✓	✓		
ES2223061-005	28-Jun-2022 00:00	MW01_4.0-4.1	✓				
ES2223061-006	28-Jun-2022 00:00	MW01_5.0-5.1	✓				
ES2223061-007	28-Jun-2022 00:00	MW01_5.5-5.6		✓		✓	
ES2223061-008	28-Jun-2022 00:00	MW01_6.0-6.1		✓			✓
ES2223061-009	27-Jun-2022 00:00	MW02_0-0.1	✓				
ES2223061-010	27-Jun-2022 00:00	MW02_0.3-0.4	✓				
ES2223061-011	27-Jun-2022 00:00	MW02_0.7-0.8	✓				
ES2223061-012	28-Jun-2022 00:00	MW02_1.5-1.6	✓				
ES2223061-013	28-Jun-2022 00:00	MW02_3.0-3.1		✓	✓		
ES2223061-014	28-Jun-2022 00:00	MW02_5.0-5.1	✓				
ES2223061-015	29-Jun-2022 00:00	MW02_7.0-7.1	✓				
ES2223061-016	27-Jun-2022 00:00	MW03_0-0.1		✓		✓	
ES2223061-017	27-Jun-2022 00:00	MW03_0.3-0.4	✓				
ES2223061-018	27-Jun-2022 00:00	MW03_0.5-0.6	✓				
ES2223061-019	28-Jun-2022 00:00	MW03_1.0-1.1	✓				
ES2223061-020	28-Jun-2022 00:00	MW03_2.0-2.1	✓				
ES2223061-021	28-Jun-2022 00:00	MW03_3.0-3.1	✓				
ES2223061-022	28-Jun-2022 00:00	MW03_4.0-4.1		✓		✓	
ES2223061-023	28-Jun-2022 00:00	MW03_5.0-5.1		✓			✓
ES2223061-024	28-Jun-2022 00:00	MW03_5.9-6.0	✓				
ES2223061-025	28-Jun-2022 00:00	MW4_0-0.1		✓	✓		
ES2223061-026	28-Jun-2022 00:00	MW4_0.3-0.4	✓				
ES2223061-027	28-Jun-2022 00:00	MW4_0.5-0.6	✓				
ES2223061-028	28-Jun-2022 00:00	MW4_1.0-1.1	✓				
ES2223061-031	29-Jun-2022 00:00	MW5_0-0.1		✓	✓		
ES2223061-032	29-Jun-2022 00:00	MW5_0.3-0.4	✓				
ES2223061-033	29-Jun-2022 00:00	MW5_0.5-0.6	✓				
ES2223061-034	29-Jun-2022 00:00	MW5_1.0-1.1	✓				
ES2223061-036	29-Jun-2022 00:00	MW5_3.0-3.1	✓				
ES2223061-037	29-Jun-2022 00:00	MW5_4.0-4.1		✓	✓		
ES2223061-038	29-Jun-2022 00:00	MW5_5.9-6.0	✓				

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2223061-039	29-Jun-2022 00:00	MW6_0-0.1		✓	✓		
ES2223061-040	29-Jun-2022 00:00	MW6_0.3-0.4	✓				
ES2223061-042	29-Jun-2022 00:00	MW6_2.0-2.1	✓				
ES2223061-043	29-Jun-2022 00:00	MW6_4.0-4.1	✓				
ES2223061-044	29-Jun-2022 00:00	MW6_5.0-5.1		✓	✓		
ES2223061-045	29-Jun-2022 00:00	MW6_6.9-7.0	✓				
ES2223061-053	29-Jun-2022 00:00	QS21	✓				
ES2223061-054	29-Jun-2022 00:00	QS22	✓				

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	SOIL - EP080 BTEXN	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs
ES2223061-057	27-Jun-2022 00:00	TRIP BLANK		✓
ES2223061-059	27-Jun-2022 00:00	TRIP SPIKE	✓	

Matrix: **SOLID**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	SOLID - EA200B Asbestos Identification in Bulk Solids (Excluding
ES2223061-060	27-Jun-2022 00:00	ACM01	✓
ES2223061-061	29-Jun-2022 00:00	ACM02	✓
ES2223061-062	30-Jun-2022 00:00	ACM03	✓
ES2223061-063	30-Jun-2022 00:00	ACM04	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - W-26 TRH/BTEXN/PAH/8 Metals	WATER - W-26T TRH/BTEXN/PAH/Total 8 Metals
ES2223061-046	30-Jun-2022 00:00	MW01	✓	
ES2223061-047	30-Jun-2022 00:00	MW02	✓	
ES2223061-048	29-Jun-2022 00:00	MW03	✓	
ES2223061-049	29-Jun-2022 00:00	MW04	✓	
ES2223061-050	30-Jun-2022 00:00	MW05	✓	
ES2223061-051	30-Jun-2022 00:00	MW06	✓	
ES2223061-052	29-Jun-2022 00:00	QW01	✓	
ES2223061-055	30-Jun-2022 00:00	RB2		✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP080 BTEXN	WATER - W-18 TRH(C6 - C9)/BTEXN
ES2223061-056	27-Jun-2022 00:00	TRIP BLANK		✓
ES2223061-058	27-Jun-2022 00:00	TRIP SPIKE	✓	

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	inbox@cavvanba.com

DREW WOOD

- *AU Certificate of Analysis - NATA (COA)	Email	drew@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	drew@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	drew@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	drew@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	drew@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	drew@cavvanba.com

ROB MCLELLAND

- A4 - AU Tax Invoice (INV)	Email	rob@cavvanba.com

ZAC LAUGHLAN

- *AU Certificate of Analysis - NATA (COA)	Email	zac@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	zac@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	zac@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	zac@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	zac@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	zac@cavvanba.com

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes / No / N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21		Free ice / frozen ice bricks present upon receipt? Yes / No / N/A
ORDER NUMBER: 21075		COC SEQUENCE NUMBER (Circle) COC: 0 1 2 3 4 5 6 7 8 9 10 11 OF: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: 4.6 °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755		Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):		
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com			
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 30/6/22	DATE/TIME: 30/6/22 17:10	DATE/TIME: 1/7 1700	DATE/TIME: 1/7/22 0730

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	W-26: TRH/BTEXN/PAHs/met als (8)	TRH + BTEXN						Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	MW01_0-0.1	27.6.22	Soil													
2	MW01_0.3-0.4	27.6.22	Soil													
3	MW01_1.0-1.1	27.6.22	Soil													
4	MW01_2.0-2.1	28.6.22	Soil					X								
5	MW01_4.0-4.1	28.6.22	Soil													
6	MW01_5.0-5.1	28.6.22	Soil													
7	MW01_5.5-5.6	28.6.22	Soil			X										
8	MW01_6.0-6.1	28.6.22	Soil				X									
9	MW02_0-0.1	27.6.22	Soil													
10	MW02_0.3-0.4	27.6.22	Soil													
11	MW02_0.7-0.8	27.6.22	Soil													
12	MW02_1.5-1.6	28.6.22	Soil													
13	MW02_3.0-3.1	28.6.22	Soil					X								
14	MW02_5.0-5.1	28.6.22	Soil													
15	MW02_7.0-7.1	28.6.22	Soil													
16	MW03_0-0.1	27.6.22	Soil			X										
17	MW03_0.3-0.4	27.6.22	Soil													
18	MW03_0.5-0.6	27.6.22	Soil													
19	MW03_1.0-1.1	28.6.22	Soil													
20	MW03_2.0-2.1	28.6.22	Soil													
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.

Environmental Division
Sydney
Work Order Reference
ES2223061

Telephone : + 61-2-8784 8555

Telephone : + 61-2-8784 8555

LAB OF ORIGIN:
NEWCASTLE

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 (2) 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: 4.6 °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 (4) 5 6 7 8 9 10 11	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	RELINQUISHED BY:	RECEIVED BY:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		DATE/TIME: 30.6.22	DATE/TIME: 30/6/22 17:10
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		RELINQUISHED BY:	RECEIVED BY: PP
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD		DATE/TIME: 1700 1/7	DATE/TIME: 1/6/22 7:30

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	W-26: TRH/BTEXN/PAHs/metals (8)	TRH + BTEXN								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc
21	MW03_3.0-3.1	28.6.22	Soil															
22	MW03_4.0-4.1	28.6.22	Soil			X												
23	MW03_5.0-5.1	28.6.22	Soil				X											
24	MW03_5.9-6.0	28.6.22	Soil															
25	MW04_0-0.1	28.6.22	Soil					X										
26	MW04_0.3-0.4	28.6.22	Soil															
27	MW04_0.5-0.6	28.6.22	Soil															
28	MW04_1.0-1.1	28.6.22	Soil															
29	MW04_4.0-4.1	28.6.22	Soil															
30	MW04_7.0-7.1	28.6.22	Soil					X										
31	MW05_0-0.1	29.6.22	Soil															
32	MW05_0.3-0.4	29.6.22	Soil					X										
33	MW05_0.5-0.6	29.6.22	Soil															
34	MW05_1.0-1.1	29.6.22	Soil															
35	MW05_2.0-2.1	29.6.22	Soil															
36	MW05_3.0-3.1	29.6.22	Soil															
37	MW05_4.0-4.1	29.6.22	Soil															
38	MW05_5.9-6.0	29.6.22	Soil					X										
39	MW06_0-0.1	29.6.22	Soil															
40	MW06_0.3-0.4	29.6.22	Soil					X										

EXTRA FOR NEW LAB

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	
ORDER NUMBER: 21075		
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 654	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

COC SEQUENCE NUMBER (Circle)

COC: 1 2 **3** 4 5 6 7 8 9 10 11

OF: 1 2 3 **4** 5 6 7 8 9 10 11

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 30.6.22	DATE/TIME: 30/6/22 17:20	DATE/TIME: 1/7 1700	DATE/TIME: 1/7/22 7:30

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCBs/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (5)	W-26: TRH/BTEXN/PAHs/metals (8)	TRH + BTEXN							Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
41	MW06_0.5-0.6	29.6.22	Soil														
42	MW06_2.0-2.1	29.6.22	Soil														
43	MW06_4.0-4.1	29.6.22	Soil														
44	MW06_5.0-5.1	29.6.22	Soil					X									
45	MW06_6.9-7.0	29.6.22	Soil														
46	MW01	30.6.22	Water						X								
47	MW02	30.6.22	Water						X								
48	MW03	29.6.22	Water						X								
49	MW04	29.6.22	Water						X								
50	MW05	30.6.22	Water						X								
51	MW06	30.6.22	Water						X								
52	QW01	29.6.22	Water						X								
~~53~~	QW02	29.6.22	Water			W-26: TRH/BTEXN/PAHs/metals (8) Please forward analysis to Eurofins											
53	QS21	29.6.22	Soil														
54	QS22	29.6.22	Soil														
55	RB2	30.6.22	Water						X								
56	Trip Blank		Water							X							
57	Trip Blank		Soil							X							
58	Trip Spike		Water							X							
59	Trip Spike		Soil							X							

LAB OF ORIGIN: NEWCASTLE

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	
ORDER NUMBER: 21075		
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7 8 9 10 11

OF: 1 2 3 4 5 6 7 8 9 10 11

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comment:	4 C		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 30·6·22	DATE/TIME: 30/6/22 17:10	DATE/TIME: 1/7 1700	DATE/TIME: 1/6/22

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/NPAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEX/NPAHs/8 Metals	S-02: Metals (8)	W-26: TRH/BTEX/NPAHs/metals (8)	TRH + BTEXN	Asbestos fragment Identification					Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
60	ACM01	27.6.22	Fragment								X					
61	ACM02	29.6.22	Fragment								X					
62	ACM03	30.6.22	Fragment								X					
63	ACM04	30.6.22	Fragment								X					
				TOTAL												

LAB OF ORIGIN: NEWCASTLE

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.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2222396**	Page	: 1 of 61
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022 15:33
Order number	: 21075	Date Analysis Commenced	: 29-Jun-2022
C-O-C number	: ----	Issue Date	: 04-Jul-2022 21:00
Sampler	: Zac Laughlan		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 97		
No. of samples analysed	: 67		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	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.

- 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.
- 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 Lead on sample ES2222396 # 061. Confirmed by re-digestion and reanalysis.
- EG005T: Poor precision was obtained for Nickel on sample ES2222396 # 087. Confirmed by re-digestion and reanalysis.
- EP068: Positive result has been confirmed by re-extraction and re-analysis.
- EG005T: Poor precision was obtained for Chromium on sample ES2222396 # 051. Confirmed by re-digestion and reanalysis.
- EP075(SIM): Surrogate recovery bias low due to sample matrix interferences.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA01_0.0-0.1	TPA01_0.3-0.4	TPA02_0.0-0.1	TPA03_0.0-0.1	TPA04_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-001	ES2222396-002	ES2222396-004	ES2222396-007	ES2222396-011
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	14.2	11.9	11.6	10.2	4.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	92	128	129	60	19
Cadmium	7440-43-9	1	mg/kg	<1	2	2	2	<1
Chromium	7440-47-3	2	mg/kg	39	21	28	19	22
Copper	7440-50-8	5	mg/kg	220	163	110	232	43
Lead	7439-92-1	5	mg/kg	311	396	270	273	95
Nickel	7440-02-0	2	mg/kg	16	18	12	15	14
Zinc	7440-66-6	5	mg/kg	694	724	687	490	185
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.3	0.3	0.5	0.3	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.1	----	<0.1
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
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	----	<0.05	----	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA01_0.0-0.1	TPA01_0.3-0.4	TPA02_0.0-0.1	TPA03_0.0-0.1	TPA04_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-001	ES2222396-002	ES2222396-004	ES2222396-007	ES2222396-011
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	----	----	<0.5	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	----	----	<0.5	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	----	----	<0.5	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	----	<1	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	----	----	<0.5	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	----	----	<0.5	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	----	<0.5	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	----	<0.5	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPA01_0.0-0.1	TPA01_0.3-0.4	TPA02_0.0-0.1	TPA03_0.0-0.1	TPA04_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-001	ES2222396-002	ES2222396-004	ES2222396-007	ES2222396-011
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Chrysene	218-01-9	0.5	mg/kg		<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
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<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
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	<0.5	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	**0.6**	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	**1.2**	----	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	<10	----	<10
C10 - C14 Fraction	----	50	mg/kg		<50	----	<50	----	<50
C15 - C28 Fraction	----	100	mg/kg		<100	----	<100	----	<100
C29 - C36 Fraction	----	100	mg/kg		<100	----	<100	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	<50	----	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	<10	----	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA01_0.0-0.1	TPA01_0.3-0.4	TPA02_0.0-0.1	TPA03_0.0-0.1	TPA04_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-001	ES2222396-002	ES2222396-004	ES2222396-007	ES2222396-011
				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	----	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	----	<50	----	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	----	<100	----	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	----	<100	----	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg	<50	----	<50	----	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg	<50	----	<50	----	<50
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	----	<0.5	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<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
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	<0.5	----	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg	<0.2	----	<0.2	----	<0.2
^ **Total Xylenes**	----	0.5	mg/kg	<0.5	----	<0.5	----	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	----	<1	----	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	**85.8**	----	**102**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	**76.1**	----	**94.6**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	**79.1**	----	**80.7**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**76.2**	----	**65.9**	----	**89.6**
2-Chlorophenol-D4	93951-73-6	0.5	%	**89.1**	----	**77.4**	----	**92.0**
2.4.6-Tribromophenol	118-79-6	0.5	%	**65.0**	----	**53.5**	----	**71.9**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**104**	----	**104**	----	**109**
Anthracene-d10	1719-06-8	0.5	%	**110**	----	**111**	----	**112**
4-Terphenyl-d14	1718-51-0	0.5	%	**99.1**	----	**100**	----	**99.6**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**94.2**	----	**111**	----	**114**
Toluene-D8	2037-26-5	0.2	%	**82.0**	----	**109**	----	**106**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA01_0.0-0.1	TPA01_0.3-0.4	TPA02_0.0-0.1	TPA03_0.0-0.1	TPA04_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-001	ES2222396-002	ES2222396-004	ES2222396-007	ES2222396-011
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**90.8**	**----**	**105**	**----**	**105**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA04_0.7-0.8	TPA05_0.0-0.1	TPA06_0.0-0.1	TPA06_0.3-0.4	TPA07_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-013	ES2222396-015	ES2222396-018	ES2222396-019	ES2222396-021
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	14.5	8.8	27.2	12.5	6.9
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	9	83	77	154	80
Cadmium	7440-43-9	1	mg/kg	<1	2	<1	2	1
Chromium	7440-47-3	2	mg/kg	64	21	23	28	39
Copper	7440-50-8	5	mg/kg	22	166	182	154	118
Lead	7439-92-1	5	mg/kg	32	482	4670	364	312
Nickel	7440-02-0	2	mg/kg	16	22	15	15	29
Zinc	7440-66-6	5	mg/kg	21	911	218	574	411
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	1.5	0.1	0.3	0.2
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	----	----
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	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA04_0.7-0.8	TPA05_0.0-0.1	TPA06_0.0-0.1	TPA06_0.3-0.4	TPA07_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-013	ES2222396-015	ES2222396-018	ES2222396-019	ES2222396-021
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA04_0.7-0.8	TPA05_0.0-0.1	TPA06_0.0-0.1	TPA06_0.3-0.4	TPA07_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-013	ES2222396-015	ES2222396-018	ES2222396-019	ES2222396-021
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<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	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<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	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	**0.6**	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	**1.2**	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	**240**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	**240**	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA04_0.7-0.8	TPA05_0.0-0.1	TPA06_0.0-0.1	TPA06_0.3-0.4	TPA07_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-013	ES2222396-015	ES2222396-018	ES2222396-019	ES2222396-021
				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	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	130	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	280	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	410	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
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	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	93.2	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	83.0	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	84.7	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	85.8	66.0	81.4	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	98.0	73.0	98.2	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	92.4	52.9	85.5	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	121	100	108	----	----
Anthracene-d10	1719-06-8	0.5	%	112	109	116	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	100	97.6	104	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	109	105	102	----	----
Toluene-D8	2037-26-5	0.2	%	100.0	101	97.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPA04_0.7-0.8	TPA05_0.0-0.1	TPA06_0.0-0.1	TPA06_0.3-0.4	TPA07_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-013	ES2222396-015	ES2222396-018	ES2222396-019	ES2222396-021
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**101**	**98.5**	**96.3**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA08_0.0-0.1	TPA08_0.7-0.8	TPB01_0.0-0.1	TPB01_0.3-0.4	TPB02_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-024	ES2222396-026	ES2222396-027	ES2222396-028	ES2222396-030
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	10.1	14.6	18.2	9.5	14.9
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	39	6	49	21	9
Cadmium	7440-43-9	1	mg/kg	2	<1	3	4	<1
Chromium	7440-47-3	2	mg/kg	15	42	8	20	100
Copper	7440-50-8	5	mg/kg	164	20	131	39	18
Lead	7439-92-1	5	mg/kg	242	21	860	189	34
Nickel	7440-02-0	2	mg/kg	11	18	9	24	9
Zinc	7440-66-6	5	mg/kg	437	20	859	3870	55
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.2	<0.1	0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	<0.1	----	----
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	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	<0.05	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA08_0.0-0.1	TPA08_0.7-0.8	TPB01_0.0-0.1	TPB01_0.3-0.4	TPB02_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-024	ES2222396-026	ES2222396-027	ES2222396-028	ES2222396-030
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	----
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPA08_0.0-0.1	TPA08_0.7-0.8	TPB01_0.0-0.1	TPB01_0.3-0.4	TPB02_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-024	ES2222396-026	ES2222396-027	ES2222396-028	ES2222396-030
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		<2	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		<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	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<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	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA08_0.0-0.1	TPA08_0.7-0.8	TPB01_0.0-0.1	TPB01_0.3-0.4	TPB02_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-024	ES2222396-026	ES2222396-027	ES2222396-028	ES2222396-030
				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	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	<50	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
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	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**93.1**	----	**102**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**82.2**	----	**95.4**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**93.4**	----	**69.9**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**77.2**	**87.4**	**58.9**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**88.1**	**99.6**	**76.2**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**69.5**	**96.1**	**53.2**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**108**	**120**	**105**	----	----
Anthracene-d10	1719-06-8	0.5	%	**114**	**116**	**108**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**102**	**103**	**99.1**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**111**	**100**	**105**	----	----
Toluene-D8	2037-26-5	0.2	%	**106**	**101**	**101**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPA08_0.0-0.1	TPA08_0.7-0.8	TPB01_0.0-0.1	TPB01_0.3-0.4	TPB02_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-024	ES2222396-026	ES2222396-027	ES2222396-028	ES2222396-030
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**101**	**101**	**94.8**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB03_0.0-0.1	TPB03_0.3-0.4	TPB04_0.0-0.1	TPB04_0.5-0.6	TPB05_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-032	ES2222396-033	ES2222396-035	ES2222396-037	ES2222396-038
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	4.6	15.1	10.7	14.4	19.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	18	68	43	7	102
Cadmium	7440-43-9	1	mg/kg	<1	4	2	<1	8
Chromium	7440-47-3	2	mg/kg	9	6	38	66	30
Copper	7440-50-8	5	mg/kg	77	124	132	30	1040
Lead	7439-92-1	5	mg/kg	103	1260	740	18	6010
Nickel	7440-02-0	2	mg/kg	5	9	23	40	16
Zinc	7440-66-6	5	mg/kg	80	567	943	35	1660
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.5	0.2	<0.1	0.3
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	----	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg	----	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	0.6	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	1.2	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	<10	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB03_0.0-0.1	TPB03_0.3-0.4	TPB04_0.0-0.1	TPB04_0.5-0.6	TPB05_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-032	ES2222396-033	ES2222396-035	ES2222396-037	ES2222396-038
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C10 - C14 Fraction	----	50	mg/kg	----	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg	----	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg	----	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	<50	----	----	----
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	----	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	<50	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	<50	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	----	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	----	----	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**39.3**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**55.7**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**31.5**	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**100**	----	----	----
Anthracene-d10	1719-06-8	0.5	%	----	**106**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**95.9**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**104**	----	----	----
Toluene-D8	2037-26-5	0.2	%	----	**102**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB03_0.0-0.1	TPB03_0.3-0.4	TPB04_0.0-0.1	TPB04_0.5-0.6	TPB05_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-032	ES2222396-033	ES2222396-035	ES2222396-037	ES2222396-038
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**----**	**97.7**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB05_0.3-0.4	TPB06_0.0-0.1	TPB06_0.3-0.4	TPB07_0.0-0.1	TPB07_0.3-0.4
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-039	ES2222396-041	ES2222396-042	ES2222396-044	ES2222396-045
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	28.2	8.0	17.7	20.3	26.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	36	370	23	196	39
Cadmium	7440-43-9	1	mg/kg	4	14	3	4	14
Chromium	7440-47-3	2	mg/kg	<2	30	53	19	5
Copper	7440-50-8	5	mg/kg	442	3840	95	655	181
Lead	7439-92-1	5	mg/kg	1370	36900	66	6240	885
Nickel	7440-02-0	2	mg/kg	7	31	13	15	9
Zinc	7440-66-6	5	mg/kg	190	6410	736	1900	1710
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	4.7	<0.1	1.0	0.1
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	----	<0.5	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	----	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	----	<0.5	----
Fluorene	86-73-7	0.5	mg/kg	----	----	----	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	----	0.8	----
Anthracene	120-12-7	0.5	mg/kg	----	----	----	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	----	1.4	----
Pyrene	129-00-0	0.5	mg/kg	----	----	----	1.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	----	0.6	----
Chrysene	218-01-9	0.5	mg/kg	----	----	----	0.8	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	----	1.0	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	----	<0.5	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	----	0.6	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	----	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	----	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	----	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	----	6.7	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	----	0.8	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	----	1.1	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	----	1.4	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	----	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB05_0.3-0.4	TPB06_0.0-0.1	TPB06_0.3-0.4	TPB07_0.0-0.1	TPB07_0.3-0.4
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-039	ES2222396-041	ES2222396-042	ES2222396-044	ES2222396-045
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	**140**	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	**180**	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	**320**	----
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	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	**270**	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	**130**	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	----	**400**	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	----	<50	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg		----	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg		----	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg		----	----	----	<1	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	----	**52.0**	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	**62.2**	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	**46.8**	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	**106**	----
Anthracene-d10	1719-06-8	0.5	%		----	----	----	**108**	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	**98.4**	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	----	**105**	----
Toluene-D8	2037-26-5	0.2	%		----	----	----	**98.9**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB05_0.3-0.4	TPB06_0.0-0.1	TPB06_0.3-0.4	TPB07_0.0-0.1	TPB07_0.3-0.4
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-039	ES2222396-041	ES2222396-042	ES2222396-044	ES2222396-045
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	----	**93.2**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB08_0.0-0.1	TPB08_0.3-0.4	TPB09_0.0-0.1	TPB09_0.3-0.4	TPB10_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-046	ES2222396-047	ES2222396-048	ES2222396-049	ES2222396-050
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.1	18.6	10.4	21.1	6.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	38	<5	85	<5	30
Cadmium	7440-43-9	1	mg/kg	2	1	8	2	2
Chromium	7440-47-3	2	mg/kg	18	22	21	23	30
Copper	7440-50-8	5	mg/kg	103	20	434	20	199
Lead	7439-92-1	5	mg/kg	672	56	1170	26	1070
Nickel	7440-02-0	2	mg/kg	15	18	18	16	12
Zinc	7440-66-6	5	mg/kg	558	591	1460	959	599
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.2	<0.1	0.1
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	----	----
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	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB08_0.0-0.1	TPB08_0.3-0.4	TPB09_0.0-0.1	TPB09_0.3-0.4	TPB10_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-046	ES2222396-047	ES2222396-048	ES2222396-049	ES2222396-050
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB08_0.0-0.1	TPB08_0.3-0.4	TPB09_0.0-0.1	TPB09_0.3-0.4	TPB10_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-046	ES2222396-047	ES2222396-048	ES2222396-049	ES2222396-050
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB08_0.0-0.1	TPB08_0.3-0.4	TPB09_0.0-0.1	TPB09_0.3-0.4	TPB10_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-046	ES2222396-047	ES2222396-048	ES2222396-049	ES2222396-050
				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	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	**93.0**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	**89.4**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	**91.0**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	**77.6**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	**90.4**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	**74.9**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	**108**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	----	**117**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	**107**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**113**	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	**109**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB08_0.0-0.1	TPB08_0.3-0.4	TPB09_0.0-0.1	TPB09_0.3-0.4	TPB10_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-046	ES2222396-047	ES2222396-048	ES2222396-049	ES2222396-050
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	**104**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB10_0.2-0.3	TPB11_0.0-0.1	TPB11_0.3-0.4	TPB12_0.0-0.1	TPB12_0.3-0.4
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-051	ES2222396-052	ES2222396-053	ES2222396-054	ES2222396-055
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**12.5**	**19.0**	**21.1**	**7.1**	**21.5**
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**12**	**5**	**6**	**28**	<5
Cadmium	7440-43-9	1	mg/kg		<1	**3**	**1**	**2**	<1
Chromium	7440-47-3	2	mg/kg		**88**	**38**	**41**	**27**	**28**
Copper	7440-50-8	5	mg/kg		**21**	**56**	**21**	**166**	**17**
Lead	7439-92-1	5	mg/kg		**21**	**106**	**19**	**954**	**10**
Nickel	7440-02-0	2	mg/kg		**12**	**15**	**14**	**13**	**18**
Zinc	7440-66-6	5	mg/kg		**33**	**2440**	**1580**	**957**	**44**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	**0.1**	<0.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB13_0.0-0.1	TPB13_0.3-0.4	TPB14_0.0-0.1	TPB14_0.2-0.3	TPB15_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-056	ES2222396-057	ES2222396-058	ES2222396-059	ES2222396-060
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.3	11.0	4.7	20.3	12.2
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	74	<5	12	<5	170
Cadmium	7440-43-9	1	mg/kg	3	5	<1	2	2
Chromium	7440-47-3	2	mg/kg	23	34	10	28	26
Copper	7440-50-8	5	mg/kg	683	79	49	13	1120
Lead	7439-92-1	5	mg/kg	5580	18	98	13	14400
Nickel	7440-02-0	2	mg/kg	11	8	4	15	21
Zinc	7440-66-6	5	mg/kg	1050	1900	134	424	1220
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	2.4	<0.1	<0.1	<0.1	2.6
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	----	----	----	----
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	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB13_0.0-0.1	TPB13_0.3-0.4	TPB14_0.0-0.1	TPB14_0.2-0.3	TPB15_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-056	ES2222396-057	ES2222396-058	ES2222396-059	ES2222396-060
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB13_0.0-0.1	TPB13_0.3-0.4	TPB14_0.0-0.1	TPB14_0.2-0.3	TPB15_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-056	ES2222396-057	ES2222396-058	ES2222396-059	ES2222396-060
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	<0.5
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		**1.4**	----	----	----	**0.9**
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		**4.4**	----	----	----	**0.6**
Pyrene	129-00-0	0.5	mg/kg		**4.5**	----	----	----	**0.5**
Benz(a)anthracene	56-55-3	0.5	mg/kg		**1.4**	----	----	----	<0.5
Chrysene	218-01-9	0.5	mg/kg		**1.7**	----	----	----	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		**2.2**	----	----	----	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		**0.8**	----	----	----	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		**1.8**	----	----	----	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		**1.2**	----	----	----	<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		**1.4**	----	----	----	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**20.8**	----	----	----	**2.0**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		**2.4**	----	----	----	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**2.6**	----	----	----	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**2.9**	----	----	----	**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		**540**	----	----	----	**200**
C29 - C36 Fraction	----	100	mg/kg		**660**	----	----	----	**250**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**1200**	----	----	----	**450**
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	TPB13_0.0-0.1	TPB13_0.3-0.4	TPB14_0.0-0.1	TPB14_0.2-0.3	TPB15_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-056	ES2222396-057	ES2222396-058	ES2222396-059	ES2222396-060
				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	**970**	----	----	----	**380**
>C34 - C40 Fraction	----	100	mg/kg	**420**	----	----	----	**140**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	**1390**	----	----	----	**520**
^ >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
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	----	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	----	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	----	----	----	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**99.7**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**96.0**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**75.0**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**86.2**	----	----	----	**75.2**
2-Chlorophenol-D4	93951-73-6	0.5	%	**93.7**	----	----	----	**92.9**
2.4.6-Tribromophenol	118-79-6	0.5	%	**91.4**	----	----	----	**92.2**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**116**	----	----	----	**102**
Anthracene-d10	1719-06-8	0.5	%	**112**	----	----	----	**107**
4-Terphenyl-d14	1718-51-0	0.5	%	**101**	----	----	----	**96.7**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**113**	----	----	----	**112**
Toluene-D8	2037-26-5	0.2	%	**104**	----	----	----	**105**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB13_0.0-0.1	TPB13_0.3-0.4	TPB14_0.0-0.1	TPB14_0.2-0.3	TPB15_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-056	ES2222396-057	ES2222396-058	ES2222396-059	ES2222396-060
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**99.7**	**----**	**----**	**----**	**102**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB15_0.2-0.3	TPB16_0.0-0.1	TPB16_0.3-0.4	TPB17 0.0-0.1	TPB17_0.5-0.6
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-061	ES2222396-062	ES2222396-063	ES2222396-065	ES2222396-067
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	8.3	21.1	24.5	10.0	14.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	10	84	43	33	7
Cadmium	7440-43-9	1	mg/kg	<1	12	10	5	5
Chromium	7440-47-3	2	mg/kg	35	22	12	14	48
Copper	7440-50-8	5	mg/kg	83	934	1400	286	20
Lead	7439-92-1	5	mg/kg	211	5540	4870	2490	158
Nickel	7440-02-0	2	mg/kg	6	21	28	12	18
Zinc	7440-66-6	5	mg/kg	293	1400	5690	1760	2370
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.7	0.5	0.3	<0.1
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	0.6	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	0.6	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	0.6	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	1.8	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB15_0.2-0.3	TPB16_0.0-0.1	TPB16_0.3-0.4	TPB17 0.0-0.1	TPB17_0.5-0.6
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-061	ES2222396-062	ES2222396-063	ES2222396-065	ES2222396-067
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	----	----	**220**	----	----
C29 - C36 Fraction	----	100	mg/kg	----	----	**170**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	**390**	----	----
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	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	**330**	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	**110**	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	**440**	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	**43.6**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	**55.0**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	**40.7**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	**102**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	----	**112**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	**102**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**103**	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	**95.7**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB15_0.2-0.3	TPB16_0.0-0.1	TPB16_0.3-0.4	TPB17 0.0-0.1	TPB17_0.5-0.6
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-061	ES2222396-062	ES2222396-063	ES2222396-065	ES2222396-067
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	**91.4**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB18_0.0-0.1	TPB18_0.3-0.4	TPB19_0.0-0.1	TPB19_0.3-0.4	TPB20_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-068	ES2222396-069	ES2222396-070	ES2222396-071	ES2222396-072
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	12.9	21.6	17.9	26.5	14.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	62	160	135	212	21
Cadmium	7440-43-9	1	mg/kg	6	5	14	6	1
Chromium	7440-47-3	2	mg/kg	17	28	28	27	9
Copper	7440-50-8	5	mg/kg	467	1110	3100	783	494
Lead	7439-92-1	5	mg/kg	4290	16400	10600	856	679
Nickel	7440-02-0	2	mg/kg	13	31	32	16	7
Zinc	7440-66-6	5	mg/kg	1460	2180	2350	883	285
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.6	2.8	1.0	0.1	0.1
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	----	----
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	----	----
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	----	----	0.07	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB18_0.0-0.1	TPB18_0.3-0.4	TPB19_0.0-0.1	TPB19_0.3-0.4	TPB20_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-068	ES2222396-069	ES2222396-070	ES2222396-071	ES2222396-072
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	0.05	mg/kg	----	----	**0.07**	----	----
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	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB18_0.0-0.1	TPB18_0.3-0.4	TPB19_0.0-0.1	TPB19_0.3-0.4	TPB20_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-068	ES2222396-069	ES2222396-070	ES2222396-071	ES2222396-072
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	**0.9**	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	**0.8**	----	----
Pyrene	129-00-0	0.5	mg/kg		----	----	**0.7**	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	**0.5**	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	**2.9**	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	**530**	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	**400**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	**930**	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB18_0.0-0.1	TPB18_0.3-0.4	TPB19_0.0-0.1	TPB19_0.3-0.4	TPB20_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-068	ES2222396-069	ES2222396-070	ES2222396-071	ES2222396-072
				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	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	**820**	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	**220**	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	**1040**	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	**103**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	**94.3**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	**98.1**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	**84.4**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	**86.1**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	**73.8**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	**78.0**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	----	**106**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	**94.6**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**106**	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	**100**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB18_0.0-0.1	TPB18_0.3-0.4	TPB19_0.0-0.1	TPB19_0.3-0.4	TPB20_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-068	ES2222396-069	ES2222396-070	ES2222396-071	ES2222396-072
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	**89.6**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB20_0.3-0.4	TPB21_0.0-0.1	TPB21_0.3-0.4	TPB22_0.0-0.1	TPB22_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-073	ES2222396-074	ES2222396-075	ES2222396-077	ES2222396-078
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	18.0	29.0	26.1	7.8	21.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	91	33	56	<5
Cadmium	7440-43-9	1	mg/kg	3	16	3	2	1
Chromium	7440-47-3	2	mg/kg	22	30	5	15	26
Copper	7440-50-8	5	mg/kg	18	831	26	159	15
Lead	7439-92-1	5	mg/kg	17	2560	42	840	12
Nickel	7440-02-0	2	mg/kg	10	106	11	11	14
Zinc	7440-66-6	5	mg/kg	1580	4790	1050	409	1270
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.2	<0.1	0.1	<0.1
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	----	----	----
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	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB20_0.3-0.4	TPB21_0.0-0.1	TPB21_0.3-0.4	TPB22_0.0-0.1	TPB22_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-073	ES2222396-074	ES2222396-075	ES2222396-077	ES2222396-078
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB20_0.3-0.4	TPB21_0.0-0.1	TPB21_0.3-0.4	TPB22_0.0-0.1	TPB22_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-073	ES2222396-074	ES2222396-075	ES2222396-077	ES2222396-078
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	<0.5	----	----
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	**0.7**	----	----
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	**0.7**	----	----
^ 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	TPB20_0.3-0.4	TPB21_0.0-0.1	TPB21_0.3-0.4	TPB22_0.0-0.1	TPB22_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-073	ES2222396-074	ES2222396-075	ES2222396-077	ES2222396-078
				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	120	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	<50	120	----	----
^ >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	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	102	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	98.6	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	99.2	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	59.4	49.3	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	65.7	55.2	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	58.7	36.2	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	83.6	107	----	----
Anthracene-d10	1719-06-8	0.5	%	----	109	104	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	97.0	93.5	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	100	105	----	----
Toluene-D8	2037-26-5	0.2	%	----	91.4	94.4	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB20_0.3-0.4	TPB21_0.0-0.1	TPB21_0.3-0.4	TPB22_0.0-0.1	TPB22_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-073	ES2222396-074	ES2222396-075	ES2222396-077	ES2222396-078
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**81.3**	**83.0**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB23_0.0-0.1	TPB23_0.7-0.8	TPB24_0.0-0.1	TPB24_0.3-0.4	TPB25_0.0-0 .1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-080	ES2222396-082	ES2222396-083	ES2222396-084	ES2222396-086
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	14.1	21.1	20.5	12.7	19.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	186	<5	27	20	128
Cadmium	7440-43-9	1	mg/kg	2	2	<1	<1	14
Chromium	7440-47-3	2	mg/kg	40	35	19	9	36
Copper	7440-50-8	5	mg/kg	198	12	70	26	558
Lead	7439-92-1	5	mg/kg	556	8	231	44	4120
Nickel	7440-02-0	2	mg/kg	20	12	11	2	38
Zinc	7440-66-6	5	mg/kg	711	2340	178	142	3540
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.2	<0.1	0.1	<0.1	0.8
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	----
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	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB23_0.0-0.1	TPB23_0.7-0.8	TPB24_0.0-0.1	TPB24_0.3-0.4	TPB25_0.0-0 .1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-080	ES2222396-082	ES2222396-083	ES2222396-084	ES2222396-086
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	----
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB23_0.0-0.1	TPB23_0.7-0.8	TPB24_0.0-0.1	TPB24_0.3-0.4	TPB25_0.0-0 .1
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-080	ES2222396-082	ES2222396-083	ES2222396-084	ES2222396-086
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		----	----	----	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		----	----	----	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		----	----	----	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	----	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	----	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	----	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	----	**0.6**	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	----	**1.2**	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	----
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<100	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB23_0.0-0.1	TPB23_0.7-0.8	TPB24_0.0-0.1	TPB24_0.3-0.4	TPB25_0.0-0 .1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-080	ES2222396-082	ES2222396-083	ES2222396-084	ES2222396-086
				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	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	<100	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	<50	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg	----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	----	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	----	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	**94.4**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	**94.1**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	----	**82.4**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	----	**92.8**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	----	**101**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	----	**80.3**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	----	**120**	----
Anthracene-d10	1719-06-8	0.5	%	----	----	----	**116**	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	----	**104**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	----	**104**	----
Toluene-D8	2037-26-5	0.2	%	----	----	----	**94.2**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB23_0.0-0.1	TPB23_0.7-0.8	TPB24_0.0-0.1	TPB24_0.3-0.4	TPB25_0.0-0 .1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-080	ES2222396-082	ES2222396-083	ES2222396-084	ES2222396-086
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	----	**95.2**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB25_0.3--0 .4	TPB26_0.0-0.1	TPB26_0.3-0.4	TPB27_0.0--0.1	TPB27_0.6-0.7
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-087	ES2222396-089	ES2222396-090	ES2222396-092	ES2222396-094
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	23.5	32.2	28.2	4.3	17.0
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	182	50	90	16	<5
Cadmium	7440-43-9	1	mg/kg	18	29	10	<1	<1
Chromium	7440-47-3	2	mg/kg	26	36	19	8	44
Copper	7440-50-8	5	mg/kg	922	584	159	93	19
Lead	7439-92-1	5	mg/kg	9300	3780	772	26	12
Nickel	7440-02-0	2	mg/kg	41	33	13	7	21
Zinc	7440-66-6	5	mg/kg	4610	4260	3160	11	29
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	1.1	0.4	0.2	0.1	<0.1
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	----
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	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB25_0.3--0 .4	TPB26_0.0-0.1	TPB26_0.3-0.4	TPB27_0.0--0.1	TPB27_0.6-0.7
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-087	ES2222396-089	ES2222396-090	ES2222396-092	ES2222396-094
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	----
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB25_0.3--0 .4	TPB26_0.0-0.1	TPB26_0.3-0.4	TPB27_0.0--0.1	TPB27_0.6-0.7
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-087	ES2222396-089	ES2222396-090	ES2222396-092	ES2222396-094
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	----	----	<0.5	----
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	**250**	----	----	<100	----
C29 - C36 Fraction	----	100	mg/kg	**180**	----	----	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	**430**	----	----	<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	TPB25_0.3--0 .4	TPB26_0.0-0.1	TPB26_0.3-0.4	TPB27_0.0--0.1	TPB27_0.6-0.7
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222396-087	ES2222396-089	ES2222396-090	ES2222396-092	ES2222396-094
				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	**370**	----	----	<100	----
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	**370**	----	----	<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	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	**90.1**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	**94.7**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	----	**86.0**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**80.4**	----	----	**95.2**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**83.2**	----	----	**97.1**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**77.0**	----	----	**75.5**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**92.8**	----	----	**91.6**	----
Anthracene-d10	1719-06-8	0.5	%	**87.7**	----	----	**108**	----
4-Terphenyl-d14	1718-51-0	0.5	%	**85.9**	----	----	**98.2**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**99.1**	----	----	**106**	----
Toluene-D8	2037-26-5	0.2	%	**90.0**	----	----	**103**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB25_0.3--0 .4	TPB26_0.0-0.1	TPB26_0.3-0.4	TPB27_0.0--0.1	TPB27_0.6-0.7
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222396-087	ES2222396-089	ES2222396-090	ES2222396-092	ES2222396-094
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**87.1**	**----**	**----**	**106**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB28_0.0-0 .1	TPB28_0.3--0.4	----	----	----
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2222396-095	ES2222396-096	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**20.6**	**22.9**	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**54**	**84**	----	----	----
Cadmium	7440-43-9	1	mg/kg	**24**	**2**	----	----	----
Chromium	7440-47-3	2	mg/kg	**28**	**22**	----	----	----
Copper	7440-50-8	5	mg/kg	**426**	**74**	----	----	----
Lead	7439-92-1	5	mg/kg	**1300**	**138**	----	----	----
Nickel	7440-02-0	2	mg/kg	**26**	**16**	----	----	----
Zinc	7440-66-6	5	mg/kg	**1160**	**654**	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	**0.4**	<0.1	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	----	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg	----	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	<10	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB28_0.0-0 .1	TPB28_0.3--0.4	----	----	----
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2222396-095	ES2222396-096	--------	--------	--------
				Result	Result	----	----	----
EP080/071: Total Petroleum Hydrocarbons - Continued								
C10 - C14 Fraction	----	50	mg/kg	----	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg	----	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg	----	<100	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg	----	<50	----	----	----
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	----	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	<100	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg	----	<50	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg	----	<50	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg	----	<0.2	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg	----	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**82.6**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**88.0**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**80.2**	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**96.3**	----	----	----
Anthracene-d10	1719-06-8	0.5	%	----	**94.2**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**90.8**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**96.6**	----	----	----
Toluene-D8	2037-26-5	0.2	%	----	**94.4**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB28_0.0-0 .1	TPB28_0.3--0.4	----	----	----
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2222396-095	ES2222396-096	--------	--------	--------
				Result	Result	----	----	----
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**----**	**95.7**	**----**	**----**	**----**

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) 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
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	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

QUALITY CONTROL REPORT

Work Order	: **ES2222396**	Page	: 1 of 20
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Order number	: 21075	Date Analysis Commenced	: 29-Jun-2022
C-O-C number	: ----	Issue Date	: 04-Jul-2022
Sampler	: Zac Laughlan		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 97		
No. of samples analysed	: 67		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	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.

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4433694)									
ES2222396-001	TPA01_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	39	44	11.8	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	16	18	11.5	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	92	96	4.3	0% - 50%
		EG005T: Copper	7440-50-8	5	mg/kg	220	242	9.2	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	311	334	6.9	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	694	574	18.9	0% - 20%
ES2222396-024	TPA08_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	2	2	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	15	16	11.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	11	12	10.1	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	39	45	12.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	164	186	12.5	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	242	239	1.3	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	437	439	0.6	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4433696)									
ES2222396-039	TPB05_0.3-0.4	EG005T: Copper	7440-50-8	5	mg/kg	442	487	9.8	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	1370	1210	12.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	190	200	5.6	0% - 20%
ES2222396-039	TPB05_0.3-0.4	EG005T: Cadmium	7440-43-9	1	mg/kg	4	3	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	4	71.3	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	7	6	25.4	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	36	34	7.4	No Limit
ES2222396-051	TPB10_0.2-0.3	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	88	# 57	43.5	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: 4433696) - continued									
ES2222396-051	TPB10_0.2-0.3	EG005T: Nickel	7440-02-0	2	mg/kg	12	9	26.9	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	12	<5	80.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	21	15	34.6	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	21	15	34.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	33	36	9.5	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4433709)									
ES2222396-061	TPB15_0.2-0.3	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	35	30	12.5	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	6	6	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	10	8	20.3	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	83	64	25.9	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	211	# 324	42.1	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	293	273	6.9	0% - 20%
ES2222396-073	TPB20_0.3-0.4	EG005T: Cadmium	7440-43-9	1	mg/kg	3	4	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	22	29	27.9	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	10	14	29.7	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	6	21.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	18	23	24.6	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	18	6.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	1580	1670	5.7	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4433711)									
ES2222396-087	TPB25_0.3--0 .4	EG005T: Copper	7440-50-8	5	mg/kg	922	792	15.1	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	9300	7970	15.4	0% - 20%
ES2222804-004	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	23	17	30.8	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	34	26	28.7	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	10	11.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	29	23	24.6	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	19	17	10.5	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	66	52	24.0	0% - 50%
ES2222396-087	TPB25_0.3--0 .4	EG005T: Cadmium	7440-43-9	1	mg/kg	18	17	10.8	0% - 50%
		EG005T: Chromium	7440-47-3	2	mg/kg	26	26	0.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	41	# 63	41.3	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	182	201	9.6	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	4610	3900	16.5	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4434495)									
ES2221323-003	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	11	12	8.8	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	36	28	22.7	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	7	5	32.2	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: 4434495) - continued									
ES2221323-003	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	43	30	36.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	16	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	80	79	1.7	0% - 50%
ES2222396-059	TPB14_0.2-0.3	EG005T: Cadmium	7440-43-9	1	mg/kg	2	2	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	28	36	26.6	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	15	17	15.2	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	13	19	36.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	13	13	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	424	434	2.2	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4433699)									
ES2222396-004	TPA02_0.0-0.1	EA055: Moisture Content	----	0.1	%	11.6	12.2	5.0	0% - 50%
ES2222396-028	TPB01_0.3-0.4	EA055: Moisture Content	----	0.1	%	9.5	12.9	30.3	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4433700)									
ES2222396-042	TPB06_0.3-0.4	EA055: Moisture Content	----	0.1	%	17.7	18.0	1.4	0% - 50%
ES2222396-054	TPB12_0.0-0.1	EA055: Moisture Content	----	0.1	%	7.1	7.1	0.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4433713)									
ES2222396-063	TPB16_0.3-0.4	EA055: Moisture Content	----	0.1	%	24.5	23.4	4.7	0% - 20%
ES2222396-077	TPB22_0.0-0.1	EA055: Moisture Content	----	0.1	%	7.8	7.9	1.7	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4433714)									
ES2222396-090	TPB26_0.3-0.4	EA055: Moisture Content	----	0.1	%	28.2	28.3	0.0	0% - 20%
ES2222804-007	Anonymous	EA055: Moisture Content	----	0.1	%	32.6	29.9	8.6	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4433695)									
ES2222396-001	TPA01_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.3	0.6	57.8	No Limit
ES2222396-024	TPA08_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.3	47.7	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4433698)									
ES2222396-039	TPB05_0.3-0.4	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.2	82.7	No Limit
ES2222396-051	TPB10_0.2-0.3	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: 4433710)									
ES2222396-061	TPB15_0.2-0.3	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222396-073	TPB20_0.3-0.4	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: 4433712)									
ES2222396-087	TPB25_0.3--0 .4	EG035T: Mercury	7439-97-6	0.1	mg/kg	1.1	1.1	0.0	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4434494)									
ES2221323-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222396-059	TPB14_0.2-0.3	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4425664)									
ES2222396-048	TPB09_0.0-0.1	EP066: Total Polychlorinated biphenyls	----	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 (%)*
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4425664) - continued									
ES2222396-004	TPA02_0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4425663)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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

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: 4425663) - continued									
ES2222396-004	TPA02_0.0-0.1	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: 4425663)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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

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: 4425663) - continued									
ES2222396-004	TPA02_0.0-0.1	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
EP075(SIM)A: Phenolic Compounds (QC Lot: 4425661)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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: 4425918)									
ES2221323-003	Anonymous	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

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: 4425918) - continued									
ES2221323-003	Anonymous	EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 4425661)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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

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: 4425661) - continued									
ES2222396-004	TPA02_0.0-0.1	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: 4425918)									
ES2221323-003	Anonymous	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4425662)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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: 4425919)									
ES2222457-004	Anonymous	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
ES2221323-003	Anonymous	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: 4429306)									
ES2222396-001	TPA01_0.0-0.1	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: 4429306) - continued									
ES2222396-044	TPB07_0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4429321)									
ES2221323-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2222457-002	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4425662)									
ES2222396-048	TPB09_0.0-0.1	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
ES2222396-004	TPA02_0.0-0.1	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: 4425919)									
ES2222457-004	Anonymous	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
ES2221323-003	Anonymous	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: 4429306)									
ES2222396-001	TPA01_0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2222396-044	TPB07_0.0-0.1	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: 4429321)									
ES2221323-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2222457-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 4429306)									
ES2222396-001	TPA01_0.0-0.1	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
ES2222396-044	TPB07_0.0-0.1	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

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: 4429321)									
ES2221323-001	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
ES2222457-002	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

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433694)								
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	85.5	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	104	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	104	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	97.5	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	97.7	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	90.6	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433696)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	104	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	105	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	107	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	96.7	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	98.3	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	93.7	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433709)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	104	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	127	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	109	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	105	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	102	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	96.3	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433711)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	104	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	127	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	114	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	110	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	106	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	105	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	103	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434495)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	101	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	93.1	70.0	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434495) - continued								
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	106	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	107	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	103	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	97.9	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	96.4	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433695)								
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: 4433698)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	91.4	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433710)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	84.5	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433712)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	87.4	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434494)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	90.8	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425664)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	109	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425663)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	100	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	103	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	108	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	107	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	106	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	101	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	95.2	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	101	64.0	122

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425663) - continued								
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	96.3	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425663)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	75.8	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.8	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	97.1	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	95.5	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	101	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	106	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	105	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	107	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	104	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	105	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	104	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	94.2	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 4425661)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	114	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	104	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	102	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	105	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	76.9	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	102	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	95.4	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	103	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	108	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	95.1	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	98.4	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	60.6	10.0	80.0
EP075(SIM)A: Phenolic Compounds (QCLot: 4425918)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	91.2	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	95.3	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	94.2	71.0	123

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 4425918) - continued								
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	97.2	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	71.6	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	94.7	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	96.1	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	99.7	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	91.6	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	95.4	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	95.0	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	44.2	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425661)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	108	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	109	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	110	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	110	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	114	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	104	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	116	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	118	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	104	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	108	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	100	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	105	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	99.4	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	101	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	95.9	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425918)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	99.3	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	102	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	101	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	102	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	104	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	97.8	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	106	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	105	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	98.2	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	96.5	75.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425918) - continued								
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	89.1	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	94.1	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	96.2	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	68.5	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	70.0	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	67.3	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425662)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	96.4	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	105	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	101	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425919)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	93.4	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	98.3	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	97.9	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429306)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	105	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429321)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	95.2	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425662)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	99.8	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	104	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	104	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425919)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	86.2	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	98.6	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	102	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429306)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	104	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429321)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	97.0	68.4	128
EP080: BTEXN (QCLot: 4429306)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	103	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	104	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	100	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	105	66.0	118

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 4429306) - continued								
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	104	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	89.8	63.0	119
EP080: BTEXN (QCLot: 4429321)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	93.9	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	89.4	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	90.7	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	91.5	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	92.7	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	90.4	63.0	119

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	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433694)							
ES2222396-001	TPA01_0.0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	104	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.3	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	93.2	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	114	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	88.9	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	110	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	81.4	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433696)							
ES2222396-039	TPB05_0.3-0.4	EG005T: Arsenic	7440-38-2	50 mg/kg	89.0	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	99.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	101	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	114	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	# Not Determined	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.9	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	122	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433709)							
ES2222396-061	TPB15_0.2-0.3	EG005T: Arsenic	7440-38-2	50 mg/kg	97.1	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	104	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433709) - continued							
ES2222396-061	TPB15_0.2-0.3	EG005T: Chromium	7440-47-3	50 mg/kg	119	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	95.0	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	114	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	102	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	80.4	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4433711)							
ES2222396-087	TPB25_0.3--0 .4	EG005T: Arsenic	7440-38-2	50 mg/kg	72.0	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	89.6	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.7	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	97.0	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	# Not Determined	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	115	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	# Not Determined	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434495)							
ES2221323-003	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	94.8	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.4	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	97.9	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	95.4	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	97.7	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	76.5	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	91.8	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433695)							
ES2222396-001	TPA01_0.0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	105	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433698)							
ES2222396-039	TPB05_0.3-0.4	EG035T: Mercury	7439-97-6	5 mg/kg	98.7	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433710)							
ES2222396-061	TPB15_0.2-0.3	EG035T: Mercury	7439-97-6	5 mg/kg	98.5	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4433712)							
ES2222396-087	TPB25_0.3--0 .4	EG035T: Mercury	7439-97-6	5 mg/kg	95.5	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434494)							
ES2221323-003	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	96.3	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425664)							
ES2222396-004	TPA02_0.0-0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	115	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425663)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425663) - continued							
ES2222396-004	TPA02_0.0-0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	88.9	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	87.7	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	92.4	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	92.1	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	83.3	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	84.2	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425663)							
ES2222396-004	TPA02_0.0-0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	103	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	82.2	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	88.3	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	89.9	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	78.3	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 4425661)							
ES2222396-004	TPA02_0.0-0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	95.6	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	96.0	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	86.7	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	100	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	79.7	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 4425918)							
ES2221323-003	Anonymous	EP075(SIM): Phenol	108-95-2	10 mg/kg	92.4	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	95.8	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	79.2	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	92.7	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	67.6	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425661)							
ES2222396-004	TPA02_0.0-0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	108	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	115	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425918)							
ES2221323-003	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	98.1	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	105	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425662)							
ES2222396-004	TPA02_0.0-0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	128	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	128	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	117	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425919)							
ES2221323-003	Anonymous	EP071: C10 - C14 Fraction	----	480 mg/kg	99.2	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	121	53.0	131

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: 4425919) - continued							
ES2221323-003	Anonymous	EP071: C29 - C36 Fraction	----	2060 mg/kg	117	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429306)							
ES2222396-001	TPA01_0.0-0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	97.4	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429321)							
ES2221323-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	89.0	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425662)							
ES2222396-004	TPA02_0.0-0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	114	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	122	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	123	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425919)							
ES2221323-003	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	89.5	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	121	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	128	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429306)							
ES2222396-001	TPA01_0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	95.8	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429321)							
ES2221323-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	91.5	70.0	130
EP080: BTEXN (QCLot: 4429306)							
ES2222396-001	TPA01_0.0-0.1	EP080: Benzene	71-43-2	2.5 mg/kg	92.2	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	90.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	91.6	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	91.4	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	92.6	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	78.1	70.0	130
EP080: BTEXN (QCLot: 4429321)							
ES2221323-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	81.6	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	76.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	81.6	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	79.8	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	81.0	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	82.7	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2222396**	Page	: 1 of 11
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Site	: ----	Issue Date	: 04-Jul-2022
Sampler	: Zac Laughlan	No. of samples received	: 97
Order number	: 21075	No. of samples analysed	: 67

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

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

Outliers : Frequency of Quality Control Samples

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

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	ES2222396--051	TPB10_0.2-0.3	**Chromium**	7440-47-3	43.5 %	0% - 20%	**RPD exceeds LOR based limits**
EG005(ED093)T: Total Metals by ICP-AES	ES2222396--061	TPB15_0.2-0.3	**Lead**	7439-92-1	42.1 %	0% - 20%	**RPD exceeds LOR based limits**
EG005(ED093)T: Total Metals by ICP-AES	ES2222396--087	TPB25_0.3--0 .4	**Nickel**	7440-02-0	41.3 %	0% - 20%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							
EG005(ED093)T: Total Metals by ICP-AES	ES2222396--039	TPB05_0.3-0.4	**Lead**	7439-92-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EG005(ED093)T: Total Metals by ICP-AES	ES2222396--087	TPB25_0.3--0 .4	**Lead**	7439-92-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EG005(ED093)T: Total Metals by ICP-AES	ES2222396--087	TPB25_0.3--0 .4	**Zinc**	7440-66-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

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	ES2222396-027	TPB01_0.0-0.1	**Phenol-d6**	13127-88-3	58.9 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-033	TPB03_0.3-0.4	**Phenol-d6**	13127-88-3	39.3 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-044	TPB07_0.0-0.1	**Phenol-d6**	13127-88-3	52.0 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-063	TPB16_0.3-0.4	**Phenol-d6**	13127-88-3	43.6 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-074	TPB21_0.0-0.1	**Phenol-d6**	13127-88-3	59.4 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-075	TPB21_0.3-0.4	**Phenol-d6**	13127-88-3	49.3 %	63.0-123 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-033	TPB03_0.3-0.4	**2-Chlorophenol-D4**	93951-73-6	55.7 %	66.0-122 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-044	TPB07_0.0-0.1	**2-Chlorophenol-D4**	93951-73-6	62.2 %	66.0-122 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-063	TPB16_0.3-0.4	**2-Chlorophenol-D4**	93951-73-6	55.0 %	66.0-122 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-074	TPB21_0.0-0.1	**2-Chlorophenol-D4**	93951-73-6	65.7 %	66.0-122 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-075	TPB21_0.3-0.4	**2-Chlorophenol-D4**	93951-73-6	55.2 %	66.0-122 %	**Recovery less than lower data quality objective**

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted - Continued							
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-033	TPB03_0.3-0.4	**2.4.6-Tribromophenol**	118-79-6	31.5 %	40.0-138 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	ES2222396-075	TPB21_0.3-0.4	**2.4.6-Tribromophenol**	118-79-6	36.2 %	40.0-138 %	**Recovery less than lower data quality objective**

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							

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								
TPA01_0.0-0.1,	TPA01_0.3-0.4,	**21-Jun-2022**	**----**	----	----	**01-Jul-2022**	05-Jul-2022	✓
TPA02_0.0-0.1,	TPA03_0.0-0.1,							
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA06_0.3-0.4,	TPA07_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB01_0.3-0.4,							
TPB02_0.0-0.1,	TPB03_0.0-0.1,							
TPB03_0.3-0.4,	TPB04_0.0-0.1,							
TPB04_0.5-0.6,	TPB05_0.0-0.1,							
TPB05_0.3-0.4,	TPB06_0.0-0.1,							
TPB06_0.3-0.4,	TPB07_0.0-0.1,							
TPB07_0.3-0.4,	TPB08_0.0-0.1,							
TPB08_0.3-0.4,	TPB09_0.0-0.1,							
TPB09_0.3-0.4,	TPB10_0.0-0.1,							
TPB10_0.2-0.3,	TPB11_0.0-0.1,							
TPB11_0.3-0.4,	TPB12_0.0-0.1,							
TPB12_0.3-0.4,	TPB13_0.0-0.1,							
TPB13_0.3-0.4,	TPB14_0.0-0.1,							
TPB14_0.2-0.3,	TPB15_0.0-0.1,							
TPB15_0.2-0.3,	TPB16_0.0-0.1,							
TPB16_0.3-0.4,	TPB17 0.0-0.1,							
TPB17_0.5-0.6,	TPB18_0.0-0.1,							
TPB18_0.3-0.4,	TPB19_0.0-0.1,							
TPB19_0.3-0.4,	TPB20_0.0-0.1							
Soil Glass Jar - Unpreserved (EA055)								
TPB20_0.3-0.4,	TPB21_0.0-0.1,	**22-Jun-2022**	**----**	----	----	**01-Jul-2022**	06-Jul-2022	✓
TPB21_0.3-0.4,	TPB22_0.0-0.1,							
TPB22_0.3-0.4,	TPB23_0.0-0.1,							
TPB23_0.7-0.8,	TPB24_0.0-0.1,							
TPB24_0.3-0.4,	TPB25_0.0-0 .1,							
TPB25_0.3--0 .4,	TPB26_0.0-0.1,							
TPB26_0.3-0.4,	TPB27_0.0--0.1,							
TPB27_0.6-0.7,	TPB28_0.0-0 .1,							
TPB28_0.3--0.4								

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								
Soil Glass Jar - Unpreserved (EG005T)								
TPA01_0.0-0.1,	TPA01_0.3-0.4,	**21-Jun-2022**	**01-Jul-2022**	18-Dec-2022	✓	**01-Jul-2022**	18-Dec-2022	✓
TPA02_0.0-0.1,	TPA03_0.0-0.1,							
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA06_0.3-0.4,	TPA07_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB01_0.3-0.4,							
TPB02_0.0-0.1,	TPB03_0.0-0.1,							
TPB03_0.3-0.4,	TPB04_0.0-0.1,							
TPB04_0.5-0.6,	TPB05_0.0-0.1,							
TPB05_0.3-0.4,	TPB06_0.0-0.1,							
TPB06_0.3-0.4,	TPB07_0.0-0.1,							
TPB07_0.3-0.4,	TPB08_0.0-0.1,							
TPB08_0.3-0.4,	TPB09_0.0-0.1,							
TPB09_0.3-0.4,	TPB10_0.0-0.1,							
TPB10_0.2-0.3,	TPB11_0.0-0.1,							
TPB11_0.3-0.4,	TPB12_0.0-0.1,							
TPB12_0.3-0.4,	TPB13_0.0-0.1,							
TPB13_0.3-0.4,	TPB14_0.0-0.1,							
TPB14_0.2-0.3,	TPB15_0.0-0.1,							
TPB15_0.2-0.3,	TPB16_0.0-0.1,							
TPB16_0.3-0.4,	TPB17 0.0-0.1,							
TPB17_0.5-0.6,	TPB18_0.0-0.1,							
TPB18_0.3-0.4,	TPB19_0.0-0.1,							
TPB19_0.3-0.4,	TPB20_0.0-0.1							
Soil Glass Jar - Unpreserved (EG005T)								
TPB20_0.3-0.4,	TPB21_0.0-0.1,	**22-Jun-2022**	**01-Jul-2022**	19-Dec-2022	✓	**01-Jul-2022**	19-Dec-2022	✓
TPB21_0.3-0.4,	TPB22_0.0-0.1,							
TPB22_0.3-0.4,	TPB23_0.0-0.1,							
TPB23_0.7-0.8,	TPB24_0.0-0.1,							
TPB24_0.3-0.4,	TPB25_0.0-0 .1,							
TPB25_0.3--0 .4,	TPB26_0.0-0.1,							
TPB26_0.3-0.4,	TPB27_0.0--0.1,							
TPB27_0.6-0.7,	TPB28_0.0-0 .1,							
TPB28_0.3--0.4								

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								
Soil Glass Jar - Unpreserved (EG035T)								
TPA01_0.0-0.1,	TPA01_0.3-0.4,	**21-Jun-2022**	**01-Jul-2022**	19-Jul-2022	✓	**01-Jul-2022**	19-Jul-2022	✓
TPA02_0.0-0.1,	TPA03_0.0-0.1,							
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA06_0.3-0.4,	TPA07_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB01_0.3-0.4,							
TPB02_0.0-0.1,	TPB03_0.0-0.1,							
TPB03_0.3-0.4,	TPB04_0.0-0.1,							
TPB04_0.5-0.6,	TPB05_0.0-0.1,							
TPB05_0.3-0.4,	TPB06_0.0-0.1,							
TPB06_0.3-0.4,	TPB07_0.0-0.1,							
TPB07_0.3-0.4,	TPB08_0.0-0.1,							
TPB08_0.3-0.4,	TPB09_0.0-0.1,							
TPB09_0.3-0.4,	TPB10_0.0-0.1,							
TPB10_0.2-0.3,	TPB11_0.0-0.1,							
TPB11_0.3-0.4,	TPB12_0.0-0.1,							
TPB12_0.3-0.4,	TPB13_0.0-0.1,							
TPB13_0.3-0.4,	TPB14_0.0-0.1,							
TPB14_0.2-0.3,	TPB15_0.0-0.1,							
TPB15_0.2-0.3,	TPB16_0.0-0.1,							
TPB16_0.3-0.4,	TPB17 0.0-0.1,							
TPB17_0.5-0.6,	TPB18_0.0-0.1,							
TPB18_0.3-0.4,	TPB19_0.0-0.1,							
TPB19_0.3-0.4,	TPB20_0.0-0.1							
Soil Glass Jar - Unpreserved (EG035T)								
TPB20_0.3-0.4,	TPB21_0.0-0.1,	**22-Jun-2022**	**01-Jul-2022**	20-Jul-2022	✓	**01-Jul-2022**	20-Jul-2022	✓
TPB21_0.3-0.4,	TPB22_0.0-0.1,							
TPB22_0.3-0.4,	TPB23_0.0-0.1,							
TPB23_0.7-0.8,	TPB24_0.0-0.1,							
TPB24_0.3-0.4,	TPB25_0.0-0 .1,							
TPB25_0.3--0 .4,	TPB26_0.0-0.1,							
TPB26_0.3-0.4,	TPB27_0.0--0.1,							
TPB27_0.6-0.7,	TPB28_0.0-0 .1,							
TPB28_0.3--0.4								

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)								
TPA02_0.0-0.1,	TPA04_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA06_0.0-0.1,	TPA08_0.0-0.1,							
TPB01_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP066)								
TPB21_0.0-0.1,	TPB24_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB27_0.0--0.1								
EP068A: Organochlorine Pesticides (OC)								
Soil Glass Jar - Unpreserved (EP068)								
TPA02_0.0-0.1,	TPA04_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA06_0.0-0.1,	TPA08_0.0-0.1,							
TPB01_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP068)								
TPB21_0.0-0.1,	TPB24_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB27_0.0--0.1								
EP068B: Organophosphorus Pesticides (OP)								
Soil Glass Jar - Unpreserved (EP068)								
TPA02_0.0-0.1,	TPA04_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA06_0.0-0.1,	TPA08_0.0-0.1,							
TPB01_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP068)								
TPB21_0.0-0.1,	TPB24_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB27_0.0--0.1								
EP075(SIM)A: Phenolic Compounds								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TPA02_0.0-0.1,	TPA04_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA06_0.0-0.1,	TPA08_0.0-0.1,							
TPB01_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP075(SIM))								
TPB21_0.0-0.1,	TPB24_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB27_0.0--0.1								

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								
Soil Glass Jar - Unpreserved (EP075(SIM))								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP075(SIM))								
TPB25_0.3--0 .4,	TPB28_0.3--0.4	**22-Jun-2022**	**01-Jul-2022**	06-Jul-2022	✓	**01-Jul-2022**	10-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB24_0.3-0.4,	TPB27_0.0--0.1							
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**29-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	05-Jul-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP071)								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP071)								
TPB25_0.3--0 .4,	TPB28_0.3--0.4	**22-Jun-2022**	**01-Jul-2022**	06-Jul-2022	✓	**01-Jul-2022**	10-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**29-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
TPB24_0.3-0.4,	TPB25_0.3--0 .4,							
TPB27_0.0--0.1,	TPB28_0.3--0.4							
Soil Glass Jar - Unpreserved (EP071)								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB24_0.3-0.4,	TPB27_0.0--0.1							

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								
Soil Glass Jar - Unpreserved (EP080)								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**29-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	05-Jul-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP071)								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**30-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP071)								
TPB25_0.3--0 .4,	TPB28_0.3--0.4	**22-Jun-2022**	**01-Jul-2022**	06-Jul-2022	✓	**01-Jul-2022**	10-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP080)								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**29-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
TPB24_0.3-0.4,	TPB25_0.3--0 .4,							
TPB27_0.0--0.1,	TPB28_0.3--0.4							
Soil Glass Jar - Unpreserved (EP071)								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB24_0.3-0.4,	TPB27_0.0--0.1							
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
TPA01_0.0-0.1,	TPA02_0.0-0.1,	**21-Jun-2022**	**29-Jun-2022**	05-Jul-2022	✓	**01-Jul-2022**	05-Jul-2022	✓
TPA04_0.0-0.1,	TPA04_0.7-0.8,							
TPA05_0.0-0.1,	TPA06_0.0-0.1,							
TPA08_0.0-0.1,	TPA08_0.7-0.8,							
TPB01_0.0-0.1,	TPB03_0.3-0.4,							
TPB07_0.0-0.1,	TPB09_0.0-0.1,							
TPB13_0.0-0.1,	TPB15_0.0-0.1,							
TPB16_0.3-0.4,	TPB19_0.0-0.1							
Soil Glass Jar - Unpreserved (EP080)								
TPB21_0.0-0.1,	TPB21_0.3-0.4,	**22-Jun-2022**	**29-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
TPB24_0.3-0.4,	TPB25_0.3--0 .4,							
TPB27_0.0--0.1,	TPB28_0.3--0.4							

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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	8	80	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	3	28	**10.71**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	9	84	**10.71**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	12	91	**13.19**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	32	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	39	**10.26**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	5	84	**5.95**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	5	91	**5.49**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	5	84	**5.95**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	5	91	**5.49**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	2	28	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	5	84	**5.95**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	5	91	**5.49**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	39	**5.13**	**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
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).
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 (SnCl2) (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 SnCl2 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)
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).
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).
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.

Preparation Methods	Method	Matrix	Method Descriptions
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.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2222396**

Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: drew@cavvanba.com	E-mail	: helen.simpson@alsglobal.com
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Facsimile	: +61 02 6685 5083	Facsimile	: +61-2-8784 8500
Project	: 21075	Page	: 1 of 4
Order number	: 21075	Quote number	: ES2021CAVCON0010 (SY/412/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: Zac Laughlan		

Dates

Date Samples Received	: 24-Jun-2022 15:33	Issue Date	: 28-Jun-2022
Client Requested Due Date	: 04-Jul-2022	Scheduled Reporting Date	: **04-Jul-2022**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 22	Temperature	: 2.8'C - Ice present
Receipt Detail	: ESKIES	No. of samples received / analysed	: 96 / 67
		No. of samples NOT collected	1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please 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.**
- **This workorder was split into ES2222500**
- Sample TPA05_0.3-0.4 SNR was not received due to the following reason: SNR
- 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.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222396-001	21-Jun-2022 00:00	TPA01_0.0-0.1		✓			✓
ES2222396-002	21-Jun-2022 00:00	TPA01_0.3-0.4		✓	✓		
ES2222396-003	21-Jun-2022 00:00	TPA01_1 .8-1 .9	✓				
ES2222396-004	21-Jun-2022 00:00	TPA02_0.0-0.1		✓		✓	
ES2222396-005	21-Jun-2022 00:00	TPA02_0.3-0.4	✓				
ES2222396-006	21-Jun-2022 00:00	TPA02_1.1-1.2	✓				
ES2222396-007	21-Jun-2022 00:00	TPA03_0.0-0.1		✓	✓		
ES2222396-008	21-Jun-2022 00:00	TPA03_0.3-0.4	✓				
ES2222396-009	21-Jun-2022 00:00	TPA03_0.6-0.7	✓				
ES2222396-010	21-Jun-2022 00:00	TPA03_ 1.3-1.4	✓				
ES2222396-011	21-Jun-2022 00:00	TPA04_0.0-0.1		✓		✓	
ES2222396-012	21-Jun-2022 00:00	TPA04_0.3-0.4	✓				
ES2222396-013	21-Jun-2022 00:00	TPA04_0.7-0.8		✓			✓
ES2222396-014	21-Jun-2022 00:00	TPA04_ 1.2-1.3	✓				
ES2222396-015	21-Jun-2022 00:00	TPA05_0.0-0.1		✓			✓
ES2222396-017	21-Jun-2022 00:00	TPA05_0.8-0.9	✓				
ES2222396-018	21-Jun-2022 00:00	TPA06_0.0-0.1		✓		✓	
ES2222396-019	21-Jun-2022 00:00	TPA06_0.3-0.4		✓	✓		
ES2222396-020	21-Jun-2022 00:00	TPA06_0.9-1 .0	✓				
ES2222396-021	21-Jun-2022 00:00	TPA07_0.0-0.1		✓	✓		
ES2222396-022	21-Jun-2022 00:00	TPA07 0.3-0.4	✓				
ES2222396-023	21-Jun-2022 00:00	TPA07_0.7-0.8	✓				
ES2222396-024	21-Jun-2022 00:00	TPA08_0.0-0.1		✓		✓	
ES2222396-025	21-Jun-2022 00:00	TPA08_0.3-0.4	✓				
ES2222396-026	21-Jun-2022 00:00	TPA08_0.7-0.8		✓			✓
ES2222396-027	21-Jun-2022 00:00	TPB01_0.0-0.1		✓		✓	
ES2222396-028	21-Jun-2022 00:00	TPB01_0.3-0.4		✓	✓		
ES2222396-029	21-Jun-2022 00:00	TPB01_0.5-0.6	✓				
ES2222396-030	21-Jun-2022 00:00	TPB02_0.0-0.1		✓	✓		
ES2222396-031	21-Jun-2022 00:00	TPB02_0.3-0.4	✓				
ES2222396-032	21-Jun-2022 00:00	TPB03_0.0-0.1		✓	✓		
ES2222396-033	21-Jun-2022 00:00	TPB03_0.3-0.4		✓			✓
ES2222396-034	21-Jun-2022 00:00	TPB03_0.5-0.6	✓				
ES2222396-035	21-Jun-2022 00:00	TPB04_0.0-0.1		✓	✓		
ES2222396-036	21-Jun-2022 00:00	TPB04_0.3-0.4	✓				

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222396-037	21-Jun-2022 00:00	TPB04_0.5-0.6		✓	✓		
ES2222396-038	21-Jun-2022 00:00	TPB05_0.0-0.1		✓	✓		
ES2222396-039	21-Jun-2022 00:00	TPB05_0.3-0.4		✓	✓		
ES2222396-040	21-Jun-2022 00:00	TPB05_0.5-0.6	✓				
ES2222396-041	21-Jun-2022 00:00	TPB06_0.0-0.1		✓	✓		
ES2222396-042	21-Jun-2022 00:00	TPB06_0.3-0.4		✓	✓		
ES2222396-043	21-Jun-2022 00:00	TPB06_0.5-0.6	✓				
ES2222396-044	21-Jun-2022 00:00	TPB07_0.0-0.1		✓			✓
ES2222396-045	21-Jun-2022 00:00	TPB07_0.3-0.4		✓	✓		
ES2222396-046	21-Jun-2022 00:00	TPB08_0.0-0.1		✓	✓		
ES2222396-047	21-Jun-2022 00:00	TPB08_0.3-0.4		✓	✓		
ES2222396-048	21-Jun-2022 00:00	TPB09_0.0-0.1		✓		✓	
ES2222396-049	21-Jun-2022 00:00	TPB09_0.3-0.4		✓	✓		
ES2222396-050	21-Jun-2022 00:00	TPB10_0.0-0.1		✓	✓		
ES2222396-051	21-Jun-2022 00:00	TPB10_0.2-0.3		✓	✓		
ES2222396-052	21-Jun-2022 00:00	TPB11_0.0-0.1		✓	✓		
ES2222396-053	21-Jun-2022 00:00	TPB11_0.3-0.4		✓	✓		
ES2222396-054	21-Jun-2022 00:00	TPB12_0.0-0.1		✓	✓		
ES2222396-055	21-Jun-2022 00:00	TPB12_0.3-0.4		✓	✓		
ES2222396-056	21-Jun-2022 00:00	TPB13_0.0-0.1		✓		✓	
ES2222396-057	21-Jun-2022 00:00	TPB13_0.3-0.4		✓	✓		
ES2222396-058	21-Jun-2022 00:00	TPB14_0.0-0.1		✓	✓		
ES2222396-059	21-Jun-2022 00:00	TPB14_0.2-0.3		✓	✓		
ES2222396-060	21-Jun-2022 00:00	TPB15_0.0-0.1		✓			✓
ES2222396-061	21-Jun-2022 00:00	TPB15_0.2-0.3		✓	✓		
ES2222396-062	21-Jun-2022 00:00	TPB16_0.0-0.1		✓	✓		
ES2222396-063	21-Jun-2022 00:00	TPB16_0.3-0.4		✓			✓
ES2222396-064	21-Jun-2022 00:00	TPB16_0.5-0.6	✓				
ES2222396-065	21-Jun-2022 00:00	TPB17 0.0-0.1		✓	✓		
ES2222396-066	21-Jun-2022 00:00	TPB17_0.3-0.4	✓				
ES2222396-067	21-Jun-2022 00:00	TPB17_0.5-0.6		✓	✓		
ES2222396-068	21-Jun-2022 00:00	TPB18_0.0-0.1		✓	✓		
ES2222396-069	21-Jun-2022 00:00	TPB18_0.3-0.4		✓	✓		
ES2222396-070	21-Jun-2022 00:00	TPB19_0.0-0.1		✓		✓	
ES2222396-071	21-Jun-2022 00:00	TPB19_0.3-0.4		✓	✓		
ES2222396-072	21-Jun-2022 00:00	TPB20_0.0-0.1		✓	✓		
ES2222396-073	22-Jun-2022 00:00	TPB20_0.3-0.4		✓	✓		
ES2222396-074	22-Jun-2022 00:00	TPB21_0.0-0.1		✓		✓	
ES2222396-075	22-Jun-2022 00:00	TPB21_0.3-0.4		✓			✓
ES2222396-076	22-Jun-2022 00:00	TPB21_0.5-0.6	✓				
ES2222396-077	22-Jun-2022 00:00	TPB22_0.0-0.1		✓	✓		

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222396-078	22-Jun-2022 00:00	TPB22_0.3-0.4		✓	✓		
ES2222396-079	22-Jun-2022 00:00	TPB22_0.9-1 .0	✓				
ES2222396-080	22-Jun-2022 00:00	TPB23_0.0-0.1		✓	✓		
ES2222396-081	22-Jun-2022 00:00	TPB23_0.3--0.4	✓				
ES2222396-082	22-Jun-2022 00:00	TPB23_0.7-0.8		✓	✓		
ES2222396-083	22-Jun-2022 00:00	TPB24_0.0-0.1		✓	✓		
ES2222396-084	22-Jun-2022 00:00	TPB24_0.3-0.4		✓		✓	
ES2222396-085	22-Jun-2022 00:00	TPB24_ 0.8--0.9	✓				
ES2222396-086	22-Jun-2022 00:00	TPB25_0.0-0 .1		✓	✓		
ES2222396-087	22-Jun-2022 00:00	TPB25_0.3--0 .4		✓			✓
ES2222396-088	22-Jun-2022 00:00	TPB25_0.5--0.6	✓				
ES2222396-089	22-Jun-2022 00:00	TPB26_0.0-0.1		✓	✓		
ES2222396-090	22-Jun-2022 00:00	TPB26_0.3-0.4		✓	✓		
ES2222396-091	22-Jun-2022 00:00	TPB26_0.5--0.6	✓				
ES2222396-092	22-Jun-2022 00:00	TPB27_0.0--0.1		✓		✓	
ES2222396-093	22-Jun-2022 00:00	TPB27_0. 3--0.4	✓				
ES2222396-094	22-Jun-2022 00:00	TPB27_0.6-0.7		✓	✓		
ES2222396-095	22-Jun-2022 00:00	TPB28_0.0-0 .1		✓	✓		
ES2222396-096	22-Jun-2022 00:00	TPB28_0.3--0.4		✓			✓
ES2222396-097	22-Jun-2022 00:00	TPB28_1 .0-1 .1	✓				

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 — inbox@cavvanba.com

DREW WOOD

- *AU Certificate of Analysis - NATA (COA) — Email — drew@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email — drew@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email — drew@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email — drew@cavvanba.com
- Chain of Custody (CoC) (COC) — Email — drew@cavvanba.com
- EDI Format - ENMRG (ENMRG) — Email — drew@cavvanba.com

ROB MCLELLAND

- A4 - AU Tax Invoice (INV) — Email — rob@cavvanba.com

ZAC LAUGHLAN

- *AU Certificate of Analysis - NATA (COA) — Email — zac@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) — Email — zac@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) — Email — zac@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) — Email — zac@cavvanba.com
- Chain of Custody (CoC) (COC) — Email — zac@cavvanba.com
- EDI Format - ENMRG (ENMRG) — Email — zac@cavvanba.com

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle	☒ Standard TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	☐ Non Standard or urgent TAT (List due date):	Free ice / frozen ice blocks present upon receipt? Yes No N/A
ORDER NUMBER: 21075	ALS QUOTE NO.: SY-412-21	Random Sample Temperature on Receipt: 2·8 °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 8 9 10 11 OF: 1 2 3 4 5 6 7 8 9 10
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24.6.22	DATE/TIME: 24/6 1530.	DATE/TIME: 24/6/22	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please put all samples not marked on hold. Thanks

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/5 Metals	S-02: Metals (8)	TRH + BTEXN		
1	TPA01_0.0-0.1	21.6.22	Soil				X				
2	TPA01_0.3-0.4	21.6.22	Soil					X			
3	TPA01_1.8-1.9	21.6.22	Soil								
4	TPA02_0.0-0.1	21.6.22	Soil			X					
5	TPA02_0.3-0.4	21.6.22	Soil								
6	TPA02_1.1-1.2	21.6.22	Soil								
7	TPA03_0.0-0.1	21.6.22	Soil					X			
8	TPA03_0.3-0.4	21.6.22	Soil								
9	TPA03_0.6-0.7	21.6.22	Soil								
10	TPA03_1.3-1.4	21.6.22	Soil								
11	TPA04_0.0-0.1	21.6.22	Soil			X					
12	TPA04_0.3-0.4	21.6.22	Soil								
13	TPA04_0.7-0.8	21.6.22	Soil				X				
14	TPA04_1.2-1.3	21.6.22	Soil								
15	TPA05_0.0-0.1	21.6.22	Soil				X				
16	TPA05_0.3-0.4 SNR	21.6.22	Soil								
17	TPA05_0.8-0.9	21.6.22	Soil								
18	TPA06_0.0-0.1	21.6.22	Soil			X					
19	TPA06_0.3-0.4	21.6.22	Soil					X			
20	TPA06_0.9-1.0	21.6.22	Soil								
				TOTAL		3	3	3			

LAB OF ORIGIN: NEWCASTLE

Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.

Environmental Division Sydney
Work Order Reference
ES2222396

Telephone : + 61-2-9784 8555

SUBCON FORWARD SPLIT – ES2222500

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	⊕ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 (2) 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 (11)	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):		RELINQUISHED BY: WS 24/6/22
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		DATE/TIME:	DATE/TIME:
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		24.6.22	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc
21	TPA07_0.0-0.1	21.6.22	Soil					X									
22	TPA07_0.3-0.4	21.6.22	Soil														
23	TPA07_0.7-0.8	21.6.22	Soil														
24	TPA08_0.0-0.1	21.6.22	Soil			X											
25	TPA08_0.3-0.4	21.6.22	Soil														
26	TPA08_0.7-0.8	21.6.22	Soil				X										
27	TPB01_0.0-0.1	21.6.22	Soil			X											
28	TPB01_0.3-0.4	21.6.22	Soil					X									
29	TPB01_0.5-0.6	21.6.22	Soil														
30	TPB02_0.0-0.1	21.6.22	Soil					X									
31	TPB02_0.3-0.4	21.6.22	Soil														
32	TPB03_0.0-0.1	21.6.22	Soil					X									
33	TPB03_0.3-0.4	21.6.22	Soil				X										
34	TPB03_0.5-0.6	21.6.22	Soil														
35	TPB04_0.0-0.1	21.6.22	Soil					X									
36	TPB04_0.3-0.4	21.6.22	Soil														
37	TPB04_0.5-0.6	21.6.22	Soil					X									
38	TPB05_0.0-0.1	21.6.22	Soil					X									
39	TPB05_0.3-0.4	21.6.22	Soil					X									
40	TPB05_0.5-0.6	21.6.22	Soil														
			TOTALS			2	2	7									

LAB OF ORIGIN: NEWCASTLE

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS : ☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: Newcastle	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	Free ice / frozen ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER: 21075	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt	°C
PROJECT MANAGER: Drew Wood CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 11	Other comment:	
SAMPLER: Zac Laughlan SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO) EDD FORMAT (or default):	DATE/TIME: 24.6.22	DATE/TIME:	DATE/TIME: 24/6/22	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com				
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com				

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/NPAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEX/NPAHs/8 Metals	S-02: Metals (8)	TRH + BTEX/N								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
41	TPB06_0.0-0.1	21.6.22	Soil					X									
42	TPB06_0.3-0.4	21.6.22	Soil					X									
43	TPB06_0.5-0.6	21.6.22	Soil														
44	TPB07_0.0-0.1	21.6.22	Soil				X										
45	TPB07_0.3-0.4	21.6.22	Soil					X									
46	TPB08_0.0-0.1	21.6.22	Soil					X									
47	TPB08_0.3-0.4	21.6.22	Soil					X									
48	TPB09_0.0-0.1	21.6.22	Soil			X											
49	TPB09_0.3-0.4	21.6.22	Soil					X									
50	TPB10_0.0-0.1	21.6.22	Soil					X									
51	TPB10_0.2-0.3	21.6.22	Soil					X									
52	TPB11_0.0-0.1	21.6.22	Soil					X									
53	TPB11_0.3-0.4	21.6.22	Soil					X									
54	TPB12_0.0-0.1	21.6.22	Soil					X									
55	TPB12_0.3-0.4	21.6.22	Soil					X									
56	TPB13_0.0-0.1	21.6.22	Soil			X											
57	TPB13_0.3-0.4	21.6.22	Soil					X									
58	TPB14_0.0-0.1	21.6.22	Soil					X									
59	TPB14_0.2-0.3	21.6.22	Soil					X									
60	TPB15_0.0-0.1	21.6.22	Soil				X										
				TOTALS		2	2	15									

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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

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 11	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 24.6.22	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com			
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			

RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24/6/22	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
61	TPB15_0.2-0.3	21.6.22	Soil					X									
62	TPB16_0.0-0.1	21.6.22	Soil					X									
63	TPB16_0.3-0.4	21.6.22	Soil				X										
64	TPB16_0.5-0.6	21.6.22	Soil														
65	TPB17_0.0-0.1	21.6.22	Soil					X									
66	TPB17_0.3-0.4	21.6.22	Soil														
67	TPB17_0.5-0.6	21.6.22	Soil					X									
68	TPB18_0.0-0.1	21.6.22	Soil					X									
69	TPB18_0.3-0.4	21.6.22	Soil					X									
70	TPB19_0.0-0.1	21.6.22	Soil			X											
71	TPB19_0.3-0.4	21.6.22	Soil					X									
72	TPB20_0.0-0.1	21.6.22	Soil					X									
73	TPB20_0.3-0.4	22.6.22	Soil					X									
74	TPB21_0.0-0.1	22.6.22	Soil			X											
75	TPB21_0.3-0.4	22.6.22	Soil				X										
76	TPB21_0.5-0.6	22.6.22	Soil														
77	TPB22_0.0-0.1	22.6.22	Soil					X									
				TOTALS		2	2	10									

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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.

CHAIN OF CUSTODY

ALS Laboratory please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE: Newcastle		
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 (5) 6 7 8 9 10 11
ORDER NUMBER: 21075		OF: 1 2 3 4 5 6 7 8 9 10 (11)
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt		°C	
Other comment:			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24.6.22	DATE/TIME:	DATE/TIME: 24/6/22	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/NPAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEX/NPAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN		Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc
78	TPB22_0.3-0.4	22.6.22	Soil					X			
79	TPB22_0.9-1.0	22.6.22	Soil								
80	TPB23_0.0-0.1	22.6.22	Soil					X			
81	TPB23_0.3-0.4	22.6.22	Soil								
82	TPB23_0.7-0.8	22.6.22	Soil					X			
83	TPB24_0.0-0.1	22.6.22	Soil					X			
84	TPB24_0.3-0.4	22.6.22	Soil			X					
85	TPB24_0.8-0.9	22.6.22	Soil								
86	TPB25_0.0-0.1	22.6.22	Soil					X			
87	TPB25_0.3-0.4	22.6.22	Soil				X				
88	TPB25_0.5-0.6	22.6.22	Soil								
89	TPB26_0.0-0.1	22.6.22	Soil					X			
90	TPB26_0.3-0.4	22.6.22	Soil					X			
91	TPB26_0.5-0.6	22.6.22	Soil								
92	TPB27_0.0-0.1	22.6.22	Soil			X					
93	TPB27_0.3-0.4	22.6.22	Soil								
94	TPB27_0.6-0.7	22.6.22	Soil					X			
95	TPB28_0.0-0.1	22.6.22	Soil					X			
96	TPB28_0.3-0.4	22.6.22	Soil				X				
97	TPB28_1.0-1.1	22.6.22	Soil								
				TOTAL		2	2	9			

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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

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2222500**	Page	: 1 of 92
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022 15:33
Order number	: 21075	Date Analysis Commenced	: 29-Jun-2022
C-O-C number	: ----	Issue Date	: 15-Jul-2022 14:11
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 126		
No. of samples analysed	: 92		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, 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.

- 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.
- 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.
- EP071: Results of samples QS07 and QS17 have been confirmed by re-extraction and re-analysis.
- EG005T: Poor precision was obtained for Chromium on sample ES2222500 # 001. Confirmed by re-digestion and reanalysis.
- EG005T: Poor precision was obtained for Chromium and Nickel on sample ES2222500 # 026. Confirmed by re-digestion and reanalysis.
- EP066: Positive PCB results have been confirmed by re-extraction and and re-analysis.
- EG005T: Poor precision was obtained for Chromium on sample ES2222500 # 091. Confirmed by redigestion and reanalysis.
- 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.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB29_0.0-0.1	TPB29_0.3-0.4	TPB30_0.0-0.1	TPB30_0.3-0 .4	TPB31_0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-001	ES2222500-002	ES2222500-003	ES2222500-004	ES2222500-006
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	7.2	17.3	18.8	19.0	38.2
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	30	38	88	112	27
Cadmium	7440-43-9	1	mg/kg	1	<1	11	<1	9
Chromium	7440-47-3	2	mg/kg	12	44	19	30	39
Copper	7440-50-8	5	mg/kg	45	24	1060	74	450
Lead	7439-92-1	5	mg/kg	96	12	1750	124	932
Nickel	7440-02-0	2	mg/kg	4	18	23	22	99
Zinc	7440-66-6	5	mg/kg	227	43	958	560	1640
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.2	<0.1	0.3
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	3.7	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	6.4	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	4.3	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	1.2	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	0.9	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	16.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.7	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB29_0.0-0.1	TPB29_0.3-0.4	TPB30_0.0-0.1	TPB30_0.3-0 .4	TPB31_0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-001	ES2222500-002	ES2222500-003	ES2222500-004	ES2222500-006
				Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued								
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
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	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	**75.2**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	**84.3**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	**59.9**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	**102**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	----	**80.8**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	**86.0**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**79.0**	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	**82.8**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB29_0.0-0.1	TPB29_0.3-0.4	TPB30_0.0-0.1	TPB30_0.3-0 .4	TPB31_0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-001	ES2222500-002	ES2222500-003	ES2222500-004	ES2222500-006
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	**85.1**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB31_0.3-0.4	TPB32_0.0-0.1	TPB32_0.3-0.4	TPB33_0.0-0.1	TPB33_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-007	ES2222500-009	ES2222500-010	ES2222500-012	ES2222500-013
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	27.2	18.9	21.1	13.0	18.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	46	15	6	28	<5
Cadmium	7440-43-9	1	mg/kg	6	4	<1	2	<1
Chromium	7440-47-3	2	mg/kg	21	64	66	44	45
Copper	7440-50-8	5	mg/kg	284	113	26	50	19
Lead	7439-92-1	5	mg/kg	405	477	27	78	12
Nickel	7440-02-0	2	mg/kg	70	31	26	19	18
Zinc	7440-66-6	5	mg/kg	1230	572	114	997	1020
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
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	----
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	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB31_0.3-0.4	TPB32_0.0-0.1	TPB32_0.3-0.4	TPB33_0.0-0.1	TPB33_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-007	ES2222500-009	ES2222500-010	ES2222500-012	ES2222500-013
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	----
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB31_0.3-0.4	TPB32_0.0-0.1	TPB32_0.3-0.4	TPB33_0.0-0.1	TPB33_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-007	ES2222500-009	ES2222500-010	ES2222500-012	ES2222500-013
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		----	----	----	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		----	----	----	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		----	----	----	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	----	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	----	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	----	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	----	**0.6**	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	----	**1.2**	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	----
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<100	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<100	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB31_0.3-0.4	TPB32_0.0-0.1	TPB32_0.3-0.4	TPB33_0.0-0.1	TPB33_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-007	ES2222500-009	ES2222500-010	ES2222500-012	ES2222500-013
				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	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	<100	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	<100	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	<50	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg	----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	----	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	----	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	**106**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	**96.7**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	----	**81.3**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	----	**83.7**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	----	**96.7**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	----	**76.3**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	----	**106**	----
Anthracene-d10	1719-06-8	0.5	%	----	----	----	**97.5**	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	----	**95.9**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	----	**79.5**	----
Toluene-D8	2037-26-5	0.2	%	----	----	----	**78.9**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB31_0.3-0.4	TPB32_0.0-0.1	TPB32_0.3-0.4	TPB33_0.0-0.1	TPB33_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-007	ES2222500-009	ES2222500-010	ES2222500-012	ES2222500-013
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	----	**80.2**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB34_0.0-0.1	TPB34_0.3-0.4	TPB35_0.0-0.1	TPB35_0. 3-0.4	TPB36_0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-014	ES2222500-015	ES2222500-016	ES2222500-017	ES2222500-018
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	8.0	18.2	10.0	9.2	6.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	46	11	265	174	30
Cadmium	7440-43-9	1	mg/kg	16	<1	13	29	21
Chromium	7440-47-3	2	mg/kg	50	30	31	46	34
Copper	7440-50-8	5	mg/kg	271	104	522	1440	1500
Lead	7439-92-1	5	mg/kg	601	380	1760	4560	1280
Nickel	7440-02-0	2	mg/kg	40	15	25	1000	54
Zinc	7440-66-6	5	mg/kg	873	570	1550	2850	1490
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.2	<0.1	0.4	1.5	12.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	0.6	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	1.2	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB34_0.0-0.1	TPB34_0.3-0.4	TPB35_0.0-0.1	TPB35_0. 3-0.4	TPB36_0.0-0.1
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-014	ES2222500-015	ES2222500-016	ES2222500-017	ES2222500-018
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	<50	----	----
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	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	110	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	110	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg		----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg		----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		----	----	<1	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	77.8	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	88.7	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	61.6	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	107	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	90.3	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	93.3	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	76.1	----	----
Toluene-D8	2037-26-5	0.2	%		----	----	83.3	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB34_0.0-0.1	TPB34_0.3-0.4	TPB35_0.0-0.1	TPB35_0. 3-0.4	TPB36_0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-014	ES2222500-015	ES2222500-016	ES2222500-017	ES2222500-018
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**----**	**----**	**79.0**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB36_0.3-0.4	TPB37_0.0-0.1	TPB37_0.3-0.4	TPB38_0.0-0.1	TPB38_0.5-0.6
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-019	ES2222500-020	ES2222500-021	ES2222500-023	ES2222500-025
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	20.9	19.8	17.0	13.4	15.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	72	9	12	38	6
Cadmium	7440-43-9	1	mg/kg	14	<1	<1	321	2
Chromium	7440-47-3	2	mg/kg	24	68	54	91	67
Copper	7440-50-8	5	mg/kg	287	45	43	2200	136
Lead	7439-92-1	5	mg/kg	540	85	90	3150	14
Nickel	7440-02-0	2	mg/kg	41	16	17	72	21
Zinc	7440-66-6	5	mg/kg	2030	132	126	5420	182
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.4	<0.1	<0.1	0.8	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	----	3.0	----
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	----
cis-Chlordane	5103-71-9	0.05	mg/kg	----	----	----	<0.05	----
Dieldrin	60-57-1	0.05	mg/kg	----	----	----	0.35	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB36_0.3-0.4	TPB37_0.0-0.1	TPB37_0.3-0.4	TPB38_0.0-0.1	TPB38_0.5-0.6
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-019	ES2222500-020	ES2222500-021	ES2222500-023	ES2222500-025
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	----	----	**0.35**	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	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	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	----
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB36_0.3-0.4	TPB37_0.0-0.1	TPB37_0.3-0.4	TPB38_0.0-0.1	TPB38_0.5-0.6
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-019	ES2222500-020	ES2222500-021	ES2222500-023	ES2222500-025
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	**0.6**	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	**0.6**	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<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
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<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
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	----	----	**1.2**	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	----	----	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	----	----	**0.6**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	----	----	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	**380**	<100
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	**430**	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	----	----	**810**	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	<10	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB36_0.3-0.4	TPB37_0.0-0.1	TPB37_0.3-0.4	TPB38_0.0-0.1	TPB38_0.5-0.6
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-019	ES2222500-020	ES2222500-021	ES2222500-023	ES2222500-025
				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	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	----	----	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	<100	----	----	**660**	<100
>C34 - C40 Fraction	----	100	mg/kg	<100	----	----	**320**	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	**980**	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	----	----	<50	<50
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	----	----	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<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
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	**92.6**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	**61.5**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	----	**103**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**75.0**	----	----	**82.4**	**88.0**
2-Chlorophenol-D4	93951-73-6	0.5	%	**85.9**	----	----	**94.4**	**101**
2.4.6-Tribromophenol	118-79-6	0.5	%	**62.8**	----	----	**82.0**	**83.7**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**105**	----	----	**103**	**109**
Anthracene-d10	1719-06-8	0.5	%	**96.2**	----	----	**93.9**	**101**
4-Terphenyl-d14	1718-51-0	0.5	%	**95.5**	----	----	**89.5**	**101**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**80.8**	----	----	**82.9**	**80.9**
Toluene-D8	2037-26-5	0.2	%	**88.0**	----	----	**83.6**	**85.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB36_0.3-0.4	TPB37_0.0-0.1	TPB37_0.3-0.4	TPB38_0.0-0.1	TPB38_0.5-0.6
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-019	ES2222500-020	ES2222500-021	ES2222500-023	ES2222500-025
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**86.0**	**----**	**----**	**84.8**	**86.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB39_0.0-0.1	TPB40_0.0-0.1	TPB40_0.3-0.4	TPB41_0.0-0.1	TPB41_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-026	ES2222500-028	ES2222500-029	ES2222500-030	ES2222500-031
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	14.0	3.2	21.0	11.9	15.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	18	29	8	146	9
Cadmium	7440-43-9	1	mg/kg	<1	9	1	3	3
Chromium	7440-47-3	2	mg/kg	64	33	92	39	92
Copper	7440-50-8	5	mg/kg	69	280	28	563	238
Lead	7439-92-1	5	mg/kg	284	1170	22	3990	17
Nickel	7440-02-0	2	mg/kg	19	33	24	26	22
Zinc	7440-66-6	5	mg/kg	235	1060	735	915	1120
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.2	<0.1	0.8	<0.1
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	----
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	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB39_0.0-0.1	TPB40_0.0-0.1	TPB40_0.3-0.4	TPB41_0.0-0.1	TPB41_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-026	ES2222500-028	ES2222500-029	ES2222500-030	ES2222500-031
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	<0.05	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	<0.05	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	<0.05	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	<0.05	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	<0.05	----
Ethion	563-12-2	0.05	mg/kg	----	----	----	<0.05	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	<0.05	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	<0.05	----
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	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB39_0.0-0.1	TPB40_0.0-0.1	TPB40_0.3-0.4	TPB41_0.0-0.1	TPB41_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-026	ES2222500-028	ES2222500-029	ES2222500-030	ES2222500-031
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	<0.5	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	<0.5	----
Fluorene	86-73-7	0.5	mg/kg		----	----	----	<0.5	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	<0.5	----
Anthracene	120-12-7	0.5	mg/kg		----	----	----	<0.5	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	<0.5	----
Pyrene	129-00-0	0.5	mg/kg		----	----	----	<0.5	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	<0.5	----
Chrysene	218-01-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	----	<0.5	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	----	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	----	<0.5	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	----	<0.5	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	----	<0.5	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	----	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	----	**0.6**	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	----	**1.2**	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	----
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	**960**	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	**280**	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	**1240**	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB39_0.0-0.1	TPB40_0.0-0.1	TPB40_0.3-0.4	TPB41_0.0-0.1	TPB41_0.3-0.4
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-026	ES2222500-028	ES2222500-029	ES2222500-030	ES2222500-031
				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	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	----	<50	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	----	**1150**	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	----	**150**	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	----	**1300**	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	----	<50	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	----	<0.2	----
Toluene	108-88-3	0.5	mg/kg	----	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	----	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	----	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	----	**115**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	----	**89.9**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	----	**105**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	----	**82.7**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	----	**95.5**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	----	**80.5**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	----	**103**	----
Anthracene-d10	1719-06-8	0.5	%	----	----	----	**97.0**	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	----	**88.8**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	----	**83.2**	----
Toluene-D8	2037-26-5	0.2	%	----	----	----	**84.4**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB39_0.0-0.1	TPB40_0.0-0.1	TPB40_0.3-0.4	TPB41_0.0-0.1	TPB41_0.3-0.4
				Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-026	ES2222500-028	ES2222500-029	ES2222500-030	ES2222500-031
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	----	----	**84.4**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB42_0.0-0.1	TPB42_0.3-0.4	TPB43_0.0-0.1	TPB43_0.3-0.4	TPB44_0.0 -0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-032	ES2222500-033	ES2222500-034	ES2222500-035	ES2222500-036
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	20.8	31.0	40.9	15.6	17.0
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	189	8	101	5	135
Cadmium	7440-43-9	1	mg/kg	8	<1	8	3	2
Chromium	7440-47-3	2	mg/kg	21	51	12	60	62
Copper	7440-50-8	5	mg/kg	985	28	721	24	424
Lead	7439-92-1	5	mg/kg	4680	12	1980	9	644
Nickel	7440-02-0	2	mg/kg	21	21	14	25	24
Zinc	7440-66-6	5	mg/kg	1460	728	1750	1820	1600
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.6	<0.1	0.3	<0.1	<0.1
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	----	----
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	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB42_0.0-0.1	TPB42_0.3-0.4	TPB43_0.0-0.1	TPB43_0.3-0.4	TPB44_0.0 -0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-032	ES2222500-033	ES2222500-034	ES2222500-035	ES2222500-036
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	----	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg	----	----	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	----	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	<0.05	----	----
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	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB42_0.0-0.1	TPB42_0.3-0.4	TPB43_0.0-0.1	TPB43_0.3-0.4	TPB44_0.0 -0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-032	ES2222500-033	ES2222500-034	ES2222500-035	ES2222500-036
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	----	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	----	<0.5	----	----
Pyrene	129-00-0	0.5	mg/kg	----	----	<0.5	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	----	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	----	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	----	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	----	**0.6**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	----	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	----	<10	----	----
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	----	----	<100	----	----
C29 - C36 Fraction	----	100	mg/kg	----	----	<100	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	----	----	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB42_0.0-0.1	TPB42_0.3-0.4	TPB43_0.0-0.1	TPB43_0.3-0.4	TPB44_0.0 -0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-032	ES2222500-033	ES2222500-034	ES2222500-035	ES2222500-036
				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	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	----	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	<50	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	----	<50	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	----	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg	----	----	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	----	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	----	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	----	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	----	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	----	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	----	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	----	**105**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	----	**88.2**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	----	**77.0**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	----	**76.6**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	----	**90.3**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	----	**73.9**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	----	**102**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	----	**94.2**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	----	**94.3**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	----	**78.9**	----	----
Toluene-D8	2037-26-5	0.2	%	----	----	**81.2**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB42_0.0-0.1	TPB42_0.3-0.4	TPB43_0.0-0.1	TPB43_0.3-0.4	TPB44_0.0 -0.1
			Sampling date / time	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00	22-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-032	ES2222500-033	ES2222500-034	ES2222500-035	ES2222500-036
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	----	----	**79.7**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB44_0.6-0.7	TPB45_0.0-0.1	TPB46_0.0-0.1	TPB46_0.3-0.4	TPB47 _0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-038	ES2222500-039	ES2222500-040	ES2222500-041	ES2222500-043
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	16.7	19.2	23.7	11.8	19.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	11	147	30	110	114
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	6	2
Chromium	7440-47-3	2	mg/kg	52	27	80	36	33
Copper	7440-50-8	5	mg/kg	28	375	98	416	766
Lead	7439-92-1	5	mg/kg	16	3410	774	2870	5020
Nickel	7440-02-0	2	mg/kg	19	10	20	18	25
Zinc	7440-66-6	5	mg/kg	32	349	756	3020	932
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.6	0.2	2.3	0.5
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	----	----	----
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	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB44_0.6-0.7	TPB45_0.0-0.1	TPB46_0.0-0.1	TPB46_0.3-0.4	TPB47 _0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-038	ES2222500-039	ES2222500-040	ES2222500-041	ES2222500-043
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB44_0.6-0.7	TPB45_0.0-0.1	TPB46_0.0-0.1	TPB46_0.3-0.4	TPB47 _0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-038	ES2222500-039	ES2222500-040	ES2222500-041	ES2222500-043
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg	----	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg	----	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg	----	**0.6**	----	----	----
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	**0.7**	----	----	----
Pyrene	129-00-0	0.5	mg/kg	----	**0.7**	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	----	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	----	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	----	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	----	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	----	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	----	**2.0**	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	----	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	----	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	----	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	----	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg	----	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg	----	**140**	----	----	----
C29 - C36 Fraction	----	100	mg/kg	----	**150**	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	**290**	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	----	<10	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB44_0.6-0.7	TPB45_0.0-0.1	TPB46_0.0-0.1	TPB46_0.3-0.4	TPB47 _0.0-0.1
			Sampling date / time	22-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-038	ES2222500-039	ES2222500-040	ES2222500-041	ES2222500-043
				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	----	----	----
>C10 - C16 Fraction	----	50	mg/kg	----	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	**250**	----	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	**100**	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	**350**	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	<50	----	----	----
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	----	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	----	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	----	----	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**96.7**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**83.3**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**85.7**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**83.6**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**96.9**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**85.5**	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**103**	----	----	----
Anthracene-d10	1719-06-8	0.5	%	----	**95.0**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**92.5**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**78.3**	----	----	----
Toluene-D8	2037-26-5	0.2	%	----	**82.4**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB44_0.6-0.7	TPB45_0.0-0.1	TPB46_0.0-0.1	TPB46_0.3-0.4	TPB47 _0.0-0.1
				Sampling date / time	22-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-038	ES2222500-039	ES2222500-040	ES2222500-041	ES2222500-043
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		----	**86.6**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB47 0.3-0.4	TPB48_0.0-0.1	TPB48_0.1-0.11	TPB49_0.0-0.1	TPB49_0.5-0.6
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-044	ES2222500-045	ES2222500-046	ES2222500-049	ES2222500-051
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	32.6	15.0	19.0	21.7	15.6
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	122	181	839	357	9
Cadmium	7440-43-9	1	mg/kg	8	2	10	5	<1
Chromium	7440-47-3	2	mg/kg	14	19	23	5	50
Copper	7440-50-8	5	mg/kg	898	816	3630	620	30
Lead	7439-92-1	5	mg/kg	1080	39200	193000	326	58
Nickel	7440-02-0	2	mg/kg	10	8	16	9	21
Zinc	7440-66-6	5	mg/kg	1580	949	7560	303	316
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.1	5.2	28.8	<0.1	<0.1
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	----	----	----
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	----	----	----
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	----	0.19	----	----	----
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	----	0.13	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	----	<0.05	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB47 0.3-0.4	TPB48_0.0-0.1	TPB48_0.1-0.11	TPB49_0.0-0.1	TPB49_0.5-0.6
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-044	ES2222500-045	ES2222500-046	ES2222500-049	ES2222500-051
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
4.4`-DDT	50-29-3	0.2	mg/kg	----	**0.4**	----	----	----
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	72-54-8/72-55-9/50-2	0.05	mg/kg	----	**0.72**	----	----	----
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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB47 0.3-0.4	TPB48_0.0-0.1	TPB48_0.1-0.11	TPB49_0.0-0.1	TPB49_0.5-0.6
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-044	ES2222500-045	ES2222500-046	ES2222500-049	ES2222500-051
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	**0.6**	<0.5	----	----
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	**1.7**	**0.8**	----	----
Pyrene	129-00-0	0.5	mg/kg	<0.5	**1.8**	**0.8**	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	**0.8**	<0.5	----	----
Chrysene	218-01-9	0.5	mg/kg	<0.5	**0.9**	<0.5	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	**1.2**	**0.8**	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	**0.9**	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	**0.6**	<0.5	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	**0.7**	<0.5	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	**9.2**	**2.4**	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	**1.2**	<0.5	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg	**0.6**	**1.4**	**0.7**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg	**1.2**	**1.7**	**1.2**	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	**170**	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	**110**	**220**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	**110**	**390**	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	<10	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB47 0.3-0.4	TPB48_0.0-0.1	TPB48_0.1-0.11	TPB49_0.0-0.1	TPB49_0.5-0.6
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-044	ES2222500-045	ES2222500-046	ES2222500-049	ES2222500-051
				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	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	<100	**150**	**330**	----	----
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	**100**	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	**150**	**430**	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	----	----
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	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<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	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**95.2**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**70.5**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**84.8**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**69.0**	**86.7**	**83.0**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**84.7**	**100**	**96.3**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**72.6**	**89.0**	**84.4**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**102**	**107**	**102**	----	----
Anthracene-d10	1719-06-8	0.5	%	**96.0**	**100**	**97.2**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	**94.0**	**96.3**	**92.1**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**81.8**	**78.3**	**87.6**	----	----
Toluene-D8	2037-26-5	0.2	%	**81.6**	**85.1**	**89.6**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB47 0.3-0.4	TPB48_0.0-0.1	TPB48_0.1-0.11	TPB49_0.0-0.1	TPB49_0.5-0.6
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-044	ES2222500-045	ES2222500-046	ES2222500-049	ES2222500-051
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**75.6**	**78.7**	**92.4**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB50_0.0-0.1	TPB50_0.3-0.4	BHB51_0.0-0.1	BHB51_0.3-0.4	BHB52_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-052	ES2222500-053	ES2222500-055	ES2222500-056	ES2222500-058
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	34.4	23.0	17.0	24.4	23.2
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	31	20	64	249	253
Cadmium	7440-43-9	1	mg/kg	1	<1	1	6	3
Chromium	7440-47-3	2	mg/kg	19	5	31	12	16
Copper	7440-50-8	5	mg/kg	210	39	59	210	189
Lead	7439-92-1	5	mg/kg	348	71	253	1340	1470
Nickel	7440-02-0	2	mg/kg	13	11	9	11	13
Zinc	7440-66-6	5	mg/kg	564	206	459	1020	836
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	0.3	0.3
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
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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB50_0.0-0.1	TPB50_0.3-0.4	BHB51_0.0-0.1	BHB51_0.3-0.4	BHB52_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-052	ES2222500-053	ES2222500-055	ES2222500-056	ES2222500-058
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	----	----	----	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	----	----	----	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	----	----	----	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg	----	----	----	----	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	----	----	----	----	<0.05
Ethion	563-12-2	0.05	mg/kg	----	----	----	----	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	----	----	----	----	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	----	----	----	----	<0.05
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB50_0.0-0.1	TPB50_0.3-0.4	BHB51_0.0-0.1	BHB51_0.3-0.4	BHB52_0.0-0.1
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-052	ES2222500-053	ES2222500-055	ES2222500-056	ES2222500-058
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	<0.5
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		**290**	----	----	----	<100
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	----	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**290**	----	----	----	<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	TPB50_0.0-0.1	TPB50_0.3-0.4	BHB51_0.0-0.1	BHB51_0.3-0.4	BHB52_0.0-0.1
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-052	ES2222500-053	ES2222500-055	ES2222500-056	ES2222500-058
					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		**360**	----	----	----	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		**360**	----	----	----	<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
Toluene	108-88-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	----	----	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	----	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	----	----	----	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	----	----	----	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	----	----	----	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	----	----	**99.3**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		----	----	----	----	**91.0**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		----	----	----	----	**84.5**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**85.2**	----	----	----	**73.5**
2-Chlorophenol-D4	93951-73-6	0.5	%		**97.8**	----	----	----	**86.3**
2.4.6-Tribromophenol	118-79-6	0.5	%		**89.7**	----	----	----	**73.5**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**103**	----	----	----	**103**
Anthracene-d10	1719-06-8	0.5	%		**99.6**	----	----	----	**96.0**
4-Terphenyl-d14	1718-51-0	0.5	%		**93.5**	----	----	----	**95.0**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**76.6**	----	----	----	**83.3**
Toluene-D8	2037-26-5	0.2	%		**75.8**	----	----	----	**87.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPB50_0.0-0.1	TPB50_0.3-0.4	BHB51_0.0-0.1	BHB51_0.3-0.4	BHB52_0.0-0.1
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-052	ES2222500-053	ES2222500-055	ES2222500-056	ES2222500-058
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**81.1**	----	----	----	**86.3**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHB52_0.3-0.4	TPC01_0.0-0.1	TPC01_0.3.0.4	TPC02_0_0.0.1	TPC02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-059	ES2222500-061	ES2222500-062	ES2222500-063	ES2222500-064
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	23.4	21.0	14.5	20.8	15.7
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	210	11	10	26	22
Cadmium	7440-43-9	1	mg/kg	3	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	12	58	73	64	80
Copper	7440-50-8	5	mg/kg	270	20	24	41	40
Lead	7439-92-1	5	mg/kg	1660	41	36	156	319
Nickel	7440-02-0	2	mg/kg	10	12	32	12	20
Zinc	7440-66-6	5	mg/kg	2220	47	10	404	201
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
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	----	----	----
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	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHB52_0.3-0.4	TPC01_0.0-0.1	TPC01_0.3.0.4	TPC02_0_0.0.1	TPC02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-059	ES2222500-061	ES2222500-062	ES2222500-063	ES2222500-064
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BHB52_0.3-0.4	TPC01_0.0-0.1	TPC01_0.3.0.4	TPC02_0_0.0.1	TPC02_0.3-0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-059	ES2222500-061	ES2222500-062	ES2222500-063	ES2222500-064
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	<0.5	----	<0.5	----
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	BHB52_0.3-0.4	TPC01_0.0-0.1	TPC01_0.3.0.4	TPC02_0_0.0.1	TPC02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-059	ES2222500-061	ES2222500-062	ES2222500-063	ES2222500-064
				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	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	----	<1	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**90.4**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**85.6**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**75.0**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**76.2**	----	**80.8**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**87.6**	----	**93.0**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**72.0**	----	**75.8**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**100**	----	**102**	----
Anthracene-d10	1719-06-8	0.5	%	----	**94.2**	----	**96.7**	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**93.2**	----	**92.6**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**82.6**	----	**77.0**	----
Toluene-D8	2037-26-5	0.2	%	----	**87.0**	----	**85.3**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	BHB52_0.3-0.4	TPC01_0.0-0.1	TPC01_0.3.0.4	TPC02_0_0.0.1	TPC02_0.3-0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-059	ES2222500-061	ES2222500-062	ES2222500-063	ES2222500-064
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**90.6**	**----**	**77.5**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC03_0.0-0.1	TPC04_0.0.0.1	TPC04_0.3.0.4	TPC05_0.0--0.1	TPC05_0.3-0 .4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-065	ES2222500-067	ES2222500-068	ES2222500-070	ES2222500-071
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	12.0	21.9	9.6	22.1	15.2
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	19	41	8	56	10
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	124	42	102	32	72
Copper	7440-50-8	5	mg/kg	24	52	22	23	15
Lead	7439-92-1	5	mg/kg	50	104	44	40	22
Nickel	7440-02-0	2	mg/kg	16	12	14	7	11
Zinc	7440-66-6	5	mg/kg	17	134	10	46	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
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	----	----	----
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	----	----	----
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	----	0.37	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC03_0.0-0.1	TPC04_0.0.0.1	TPC04_0.3.0.4	TPC05_0.0--0.1	TPC05_0.3-0 .4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-065	ES2222500-067	ES2222500-068	ES2222500-070	ES2222500-071
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	0.05	mg/kg	----	**0.37**	----	----	----
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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC03_0.0-0.1	TPC04_0.0.0.1	TPC04_0.3.0.4	TPC05_0.0--0.1	TPC05_0.3-0 .4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-065	ES2222500-067	ES2222500-068	ES2222500-070	ES2222500-071
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	----	<0.5	----
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	----	**0.9**	----	<0.5	----
Pyrene	129-00-0	0.5	mg/kg	----	**1.1**	----	<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	----	**0.6**	----	<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	----	**2.6**	----	<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	TPC03_0.0-0.1	TPC04_0.0.0.1	TPC04_0.3.0.4	TPC05_0.0--0.1	TPC05_0.3-0 .4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-065	ES2222500-067	ES2222500-068	ES2222500-070	ES2222500-071
				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	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	----	<1	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**102**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**96.1**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**111**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**83.2**	----	**88.6**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**96.4**	----	**101**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**77.4**	----	**85.0**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**106**	----	**109**	----
Anthracene-d10	1719-06-8	0.5	%	----	**99.2**	----	**100**	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**95.0**	----	**99.7**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**84.1**	----	**88.8**	----
Toluene-D8	2037-26-5	0.2	%	----	**85.2**	----	**90.8**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPC03_0.0-0.1	TPC04_0.0.0.1	TPC04_0.3.0.4	TPC05_0.0--0.1	TPC05_0.3-0 .4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-065	ES2222500-067	ES2222500-068	ES2222500-070	ES2222500-071
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**90.9**	**----**	**94.0**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC06_0.0-0.1	TPC06_0.4-0.5	TPC07_0.0-0.1	TPC08_0.0-0.1	TPC08_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-072	ES2222500-074	ES2222500-075	ES2222500-077	ES2222500-078
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	21.4	21.7	12.6	9.2	12.5
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	32	6	19	11	8
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	47	37	86	82	61
Copper	7440-50-8	5	mg/kg	48	16	29	18	17
Lead	7439-92-1	5	mg/kg	145	11	36	39	45
Nickel	7440-02-0	2	mg/kg	11	10	9	10	10
Zinc	7440-66-6	5	mg/kg	207	115	34	13	8
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
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	----	----	----	----
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	----	----	----	----
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	0.61	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC06_0.0-0.1	TPC06_0.4-0.5	TPC07_0.0-0.1	TPC08_0.0-0.1	TPC08_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-072	ES2222500-074	ES2222500-075	ES2222500-077	ES2222500-078
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	0.05	mg/kg	**0.61**	----	----	----	----
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	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPC06_0.0-0.1	TPC06_0.4-0.5	TPC07_0.0-0.1	TPC08_0.0-0.1	TPC08_0.3-0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-072	ES2222500-074	ES2222500-075	ES2222500-077	ES2222500-078
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	<0.5	----
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	TPC06_0.0-0.1	TPC06_0.4-0.5	TPC07_0.0-0.1	TPC08_0.0-0.1	TPC08_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-072	ES2222500-074	ES2222500-075	ES2222500-077	ES2222500-078
				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	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**108**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**83.4**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**112**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**85.2**	----	----	**79.6**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**98.4**	----	----	**89.6**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**78.9**	----	----	**63.3**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**106**	----	----	**103**	----
Anthracene-d10	1719-06-8	0.5	%	**99.5**	----	----	**95.0**	----
4-Terphenyl-d14	1718-51-0	0.5	%	**96.5**	----	----	**96.2**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**81.9**	----	----	**76.0**	----
Toluene-D8	2037-26-5	0.2	%	**85.6**	----	----	**83.2**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC06_0.0-0.1	TPC06_0.4-0.5	TPC07_0.0-0.1	TPC08_0.0-0.1	TPC08_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-072	ES2222500-074	ES2222500-075	ES2222500-077	ES2222500-078
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**90.1**	**----**	**----**	**84.3**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC09_0.0.0.1	TPC09_0.3-0.4	TPC10_0.0-0.1	TPC11_0.0.0.1	TPC11_0.3.0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-080	ES2222500-081	ES2222500-082	ES2222500-084	ES2222500-085
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**24.6**	**12.7**	**21.7**	**20.0**	**12.6**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**42**	**10**	<5	**12**	**7**
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	**24**	**53**	**32**	**49**	**68**
Copper	7440-50-8	5	mg/kg	**212**	**20**	**14**	**39**	**12**
Lead	7439-92-1	5	mg/kg	**908**	**26**	**26**	**84**	**20**
Nickel	7440-02-0	2	mg/kg	**12**	**10**	**6**	**9**	**9**
Zinc	7440-66-6	5	mg/kg	**295**	**151**	**35**	**100**	**13**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	**0.2**	<0.1	<0.1	<0.1	<0.1
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	----	----	----	----
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	----	----	----	----
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	**1.03**	----	----	----	----
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	**0.26**	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC09_0.0.0.1	TPC09_0.3-0.4	TPC10_0.0-0.1	TPC11_0.0.0.1	TPC11_0.3.0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-080	ES2222500-081	ES2222500-082	ES2222500-084	ES2222500-085
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
4.4`-DDT	50-29-3	0.2	mg/kg	**0.5**	----	----	----	----
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**	72-54-8/72-55-9/50-2	0.05	mg/kg	**1.79**	----	----	----	----
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	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg	<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	----	----	----	----
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	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPC09_0.0.0.1	TPC09_0.3-0.4	TPC10_0.0-0.1	TPC11_0.0.0.1	TPC11_0.3.0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-080	ES2222500-081	ES2222500-082	ES2222500-084	ES2222500-085
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
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	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	<0.5	----
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	TPC09_0.0.0.1	TPC09_0.3-0.4	TPC10_0.0-0.1	TPC11_0.0.0.1	TPC11_0.3.0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-080	ES2222500-081	ES2222500-082	ES2222500-084	ES2222500-085
				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	----
Toluene	108-88-3	0.5	mg/kg	<0.5	----	----	<0.5	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	----	----	<0.5	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	----	----	<0.5	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	<0.5	----
^ Sum of BTEX	----	0.2	mg/kg	<0.2	----	----	<0.2	----
^ Total Xylenes	----	0.5	mg/kg	<0.5	----	----	<0.5	----
Naphthalene	91-20-3	1	mg/kg	<1	----	----	<1	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**94.6**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**69.3**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**83.8**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**78.6**	----	----	**72.7**	----
2-Chlorophenol-D4	93951-73-6	0.5	%	**89.5**	----	----	**78.4**	----
2.4.6-Tribromophenol	118-79-6	0.5	%	**56.1**	----	----	**46.8**	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**119**	----	----	**108**	----
Anthracene-d10	1719-06-8	0.5	%	**98.8**	----	----	**98.8**	----
4-Terphenyl-d14	1718-51-0	0.5	%	**92.8**	----	----	**91.9**	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**89.6**	----	----	**79.6**	----
Toluene-D8	2037-26-5	0.2	%	**89.0**	----	----	**78.9**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC09_0.0.0.1	TPC09_0.3-0.4	TPC10_0.0-0.1	TPC11_0.0.0.1	TPC11_0.3.0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-080	ES2222500-081	ES2222500-082	ES2222500-084	ES2222500-085
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**95.4**	**----**	**----**	**80.0**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC12_0.0.0.1	TPC13_0.0.0.1	TPC13_0.6-0.7	TPC14_0.0-0.1	TPC15_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-087	ES2222500-089	ES2222500-091	ES2222500-092	ES2222500-094
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	16.6	16.8	16.6	22.2	21.0
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	18	13	6	10	7
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	93	40	59	44	37
Copper	7440-50-8	5	mg/kg	29	31	14	18	17
Lead	7439-92-1	5	mg/kg	65	48	17	47	32
Nickel	7440-02-0	2	mg/kg	9	8	8	12	9
Zinc	7440-66-6	5	mg/kg	63	73	11	44	41
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	----	<0.1
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	----	0.15	----	----	<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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC12_0.0.0.1	TPC13_0.0.0.1	TPC13_0.6-0.7	TPC14_0.0-0.1	TPC15_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-087	ES2222500-089	ES2222500-091	ES2222500-092	ES2222500-094
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	**0.15**	----	----	<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
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg	----	<0.5	----	----	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg	----	<0.5	----	----	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	<1	----	----	<1
2-Nitrophenol	88-75-5	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC12_0.0.0.1	TPC13_0.0.0.1	TPC13_0.6-0.7	TPC14_0.0-0.1	TPC15_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-087	ES2222500-089	ES2222500-091	ES2222500-092	ES2222500-094
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	----	<0.5	----	----	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	----	<0.5	----	----	<0.5
Pentachlorophenol	87-86-5	2	mg/kg	----	<2	----	----	<2
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
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	TPC12_0.0.0.1	TPC13_0.0.0.1	TPC13_0.6-0.7	TPC14_0.0-0.1	TPC15_0.0-0.1
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-087	ES2222500-089	ES2222500-091	ES2222500-092	ES2222500-094
					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
Toluene	108-88-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	<0.5	----	----	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	<0.5	----	----	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	<0.5	----	----	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		----	<0.2	----	----	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		----	<0.5	----	----	<0.5
Naphthalene	91-20-3	1	mg/kg		----	<1	----	----	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	**100**	----	----	**92.4**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		----	**78.9**	----	----	**90.1**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		----	**81.7**	----	----	**100**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	**72.2**	----	----	**71.0**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	**83.0**	----	----	**83.0**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	**63.2**	----	----	**48.5**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	**114**	----	----	**118**
Anthracene-d10	1719-06-8	0.5	%		----	**97.2**	----	----	**101**
4-Terphenyl-d14	1718-51-0	0.5	%		----	**89.3**	----	----	**92.7**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	**84.2**	----	----	**87.3**
Toluene-D8	2037-26-5	0.2	%		----	**83.2**	----	----	**84.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC12_0.0.0.1	TPC13_0.0.0.1	TPC13_0.6-0.7	TPC14_0.0-0.1	TPC15_0.0-0.1
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-087	ES2222500-089	ES2222500-091	ES2222500-092	ES2222500-094
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**----**	**85.8**	**----**	**----**	**87.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC15_0.3-0.4	BHD01_0.0-0.1	8HD01_0.3-0.4	BHD02_0.0-0.1	BHD02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-095	ES2222500-096	ES2222500-097	ES2222500-099	ES2222500-100
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	15.2	25.3	14.7	18.5	17.2
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	8	5	5	19	9
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	33	18	31	44	52
Copper	7440-50-8	5	mg/kg	18	15	17	26	24
Lead	7439-92-1	5	mg/kg	12	20	38	35	27
Nickel	7440-02-0	2	mg/kg	8	7	12	10	11
Zinc	7440-66-6	5	mg/kg	11	40	20	52	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
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	----	<0.1	----
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	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	----	<0.05	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC15_0.3-0.4	BHD01_0.0-0.1	8HD01_0.3-0.4	BHD02_0.0-0.1	BHD02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-095	ES2222500-096	ES2222500-097	ES2222500-099	ES2222500-100
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	----	<0.5	----	<0.5	----
2-Chlorophenol	95-57-8	0.5	mg/kg	----	<0.5	----	<0.5	----
2-Methylphenol	95-48-7	0.5	mg/kg	----	<0.5	----	<0.5	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	<1	----	<1	----
2-Nitrophenol	88-75-5	0.5	mg/kg	----	<0.5	----	<0.5	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	----	<0.5	----	<0.5	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	<0.5	----	<0.5	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	<0.5	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPC15_0.3-0.4	BHD01_0.0-0.1	8HD01_0.3-0.4	BHD02_0.0-0.1	BHD02_0.3-0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-095	ES2222500-096	ES2222500-097	ES2222500-099	ES2222500-100
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	<0.5	----	<0.5	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	<0.5	----	<0.5	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Pentachlorophenol	87-86-5	2	mg/kg		----	<2	----	<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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPC15_0.3-0.4	BHD01_0.0-0.1	8HD01_0.3-0.4	BHD02_0.0-0.1	BHD02_0.3-0.4
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-095	ES2222500-096	ES2222500-097	ES2222500-099	ES2222500-100
				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	<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
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**91.1**	----	**85.5**	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**76.5**	----	**71.3**	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**85.1**	----	**81.5**	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**89.0**	**70.2**	**71.2**	**72.8**
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**105**	**89.2**	**85.5**	**86.1**
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**67.4**	**56.0**	**58.3**	**57.0**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**110**	**111**	**91.8**	**103**
Anthracene-d10	1719-06-8	0.5	%	----	**113**	**101**	**98.3**	**102**
4-Terphenyl-d14	1718-51-0	0.5	%	----	**103**	**92.5**	**90.2**	**94.4**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**81.6**	**80.7**	**84.3**	**88.8**
Toluene-D8	2037-26-5	0.2	%	----	**79.0**	**81.1**	**83.8**	**89.3**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TPC15_0.3-0.4	BHD01_0.0-0.1	8HD01_0.3-0.4	BHD02_0.0-0.1	BHD02_0.3-0.4
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-095	ES2222500-096	ES2222500-097	ES2222500-099	ES2222500-100
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**83.9**	**85.5**	**89.4**	**100**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHD03_0.0-0.1	BHD03_0.3-0.4	BHD04_0.0-0.1	BHD04_0.3-0.4	QS01
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-101	ES2222500-102	ES2222500-103	ES2222500-104	ES2222500-105
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	18.6	12.7	19.0	15.0	19.4
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	6	13	<5	7	110
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	1
Chromium	7440-47-3	2	mg/kg	21	92	11	20	21
Copper	7440-50-8	5	mg/kg	18	28	8	32	269
Lead	7439-92-1	5	mg/kg	30	42	15	28	330
Nickel	7440-02-0	2	mg/kg	8	17	4	9	18
Zinc	7440-66-6	5	mg/kg	161	13	25	32	578
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	<0.1	----	----
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	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	<0.05	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHD03_0.0-0.1	BHD03_0.3-0.4	BHD04_0.0-0.1	BHD04_0.3-0.4	QS01
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-101	ES2222500-102	ES2222500-103	ES2222500-104	ES2222500-105
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	----
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHD03_0.0-0.1	BHD03_0.3-0.4	BHD04_0.0-0.1	BHD04_0.3-0.4	QS01
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-101	ES2222500-102	ES2222500-103	ES2222500-104	ES2222500-105
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg	<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
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

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHD03_0.0-0.1	BHD03_0.3-0.4	BHD04_0.0-0.1	BHD04_0.3-0.4	QS01
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-101	ES2222500-102	ES2222500-103	ES2222500-104	ES2222500-105
				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	<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								
Decachlorobiphenyl	2051-24-3	0.1	%	**93.7**	**----**	**75.7**	**----**	**----**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**86.6**	**----**	**77.2**	**----**	**----**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**96.6**	**----**	**85.8**	**----**	**----**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	**72.2**	**73.2**	**71.8**	**74.1**	**74.6**
2-Chlorophenol-D4	93951-73-6	0.5	%	**88.4**	**83.4**	**84.4**	**85.3**	**85.7**
2.4.6-Tribromophenol	118-79-6	0.5	%	**56.4**	**51.6**	**53.2**	**68.8**	**54.9**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	**118**	**98.0**	**95.6**	**115**	**122**
Anthracene-d10	1719-06-8	0.5	%	**99.8**	**102**	**102**	**98.9**	**99.6**
4-Terphenyl-d14	1718-51-0	0.5	%	**88.9**	**92.4**	**93.6**	**90.4**	**88.6**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**78.7**	**75.6**	**85.8**	**92.7**	**85.7**
Toluene-D8	2037-26-5	0.2	%	**78.9**	**77.1**	**85.7**	**93.4**	**83.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	BHD03_0.0-0.1	BHD03_0.3-0.4	BHD04_0.0-0.1	BHD04_0.3-0.4	QS01
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-101	ES2222500-102	ES2222500-103	ES2222500-104	ES2222500-105
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**86.1**	**83.5**	**91.8**	**95.4**	**90.6**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS03	QS05	QS07	QS09	QS11
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-106	ES2222500-107	ES2222500-108	ES2222500-109	ES2222500-110
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.9	5.6	11.5	20.8	13.7
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	50	28	182	126	10
Cadmium	7440-43-9	1	mg/kg	<1	2	2	16	<1
Chromium	7440-47-3	2	mg/kg	20	27	27	34	38
Copper	7440-50-8	5	mg/kg	82	184	1550	634	48
Lead	7439-92-1	5	mg/kg	224	1440	18700	4700	217
Nickel	7440-02-0	2	mg/kg	14	11	19	39	17
Zinc	7440-66-6	5	mg/kg	387	764	1270	3770	192
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.3	<0.1	2.4	0.9	<0.1
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	----	----	----
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	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS03	QS05	QS07	QS09	QS11
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-106	ES2222500-107	ES2222500-108	ES2222500-109	ES2222500-110
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	72-54-8/72-55-9/50-2	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	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	----	<0.05	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg	----	<0.05	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg	----	<0.05	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg	----	<0.05	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg	----	<0.05	----	----	----
Ethion	563-12-2	0.05	mg/kg	----	<0.05	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg	----	<0.05	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg	----	<0.05	----	----	----
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	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS03	QS05	QS07	QS09	QS11
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-106	ES2222500-107	ES2222500-108	ES2222500-109	ES2222500-110
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
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	----	----
Acenaphthylene	208-96-8	0.5	mg/kg	----	<0.5	<0.5	----	----
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	**0.6**	----	----
Anthracene	120-12-7	0.5	mg/kg	----	<0.5	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg	----	**0.6**	**0.7**	----	----
Pyrene	129-00-0	0.5	mg/kg	----	**0.6**	**0.7**	----	----
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	----	**1.2**	**2.0**	----	----
^ 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	**270**	----	----
C29 - C36 Fraction	----	100	mg/kg	----	<100	**310**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	<50	**580**	----	----
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	QS03	QS05	QS07	QS09	QS11
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-106	ES2222500-107	ES2222500-108	ES2222500-109	ES2222500-110
				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	**500**	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	<100	**160**	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	<50	**660**	----	----
^ >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	----	----
Toluene	108-88-3	0.5	mg/kg	----	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg	----	<1	<1	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**97.7**	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**84.7**	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**97.8**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**76.6**	**72.6**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**91.1**	**88.4**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**58.0**	**69.4**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**120**	**117**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	**98.4**	**92.1**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**89.4**	**84.4**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**89.7**	**83.8**	----	----
Toluene-D8	2037-26-5	0.2	%	----	**93.4**	**81.1**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QS03	QS05	QS07	QS09	QS11
				Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00
Compound	CAS Number	LOR	Unit		ES2222500-106	ES2222500-107	ES2222500-108	ES2222500-109	ES2222500-110
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**96.5**	**81.8**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS13	QS17	QS19	Trip Blank	Trip Spike
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	16-Jun-2022 00:00	16-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-111	ES2222500-114	ES2222500-115	ES2222500-116	ES2222500-117
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**12.6**	**16.2**	**14.7**	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	**14**	**130**	<5	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	----	----
Chromium	7440-47-3	2	mg/kg	**92**	**19**	**14**	----	----
Copper	7440-50-8	5	mg/kg	**20**	**395**	**7**	----	----
Lead	7439-92-1	5	mg/kg	**90**	**3620**	**19**	----	----
Nickel	7440-02-0	2	mg/kg	**14**	**9**	**4**	----	----
Zinc	7440-66-6	5	mg/kg	**13**	**401**	**21**	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	**0.6**	<0.1	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	<0.1	<0.1	----	----
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	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	----	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS13	QS17	QS19	Trip Blank	Trip Spike
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	16-Jun-2022 00:00	16-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-111	ES2222500-114	ES2222500-115	ES2222500-116	ES2222500-117
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
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	----	----
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)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	----	<0.5	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	----	<0.5	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	----	<0.5	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg	----	<1	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	----	<0.5	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg	----	<0.5	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg	----	<0.5	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg	----	<0.5	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS13	QS17	QS19	Trip Blank	Trip Spike
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	16-Jun-2022 00:00	16-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-111	ES2222500-114	ES2222500-115	ES2222500-116	ES2222500-117
				Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued								
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	----	<0.5	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	----	<0.5	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	----	<0.5	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg	----	<2	<2	----	----
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	----	----
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	<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	<10	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS13	QS17	QS19	Trip Blank	Trip Spike
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	16-Jun-2022 00:00	16-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-111	ES2222500-114	ES2222500-115	ES2222500-116	ES2222500-117
				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	<10	----
>C10 - C16 Fraction	----	50	mg/kg	----	<50	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg	----	**150**	<100	----	----
>C34 - C40 Fraction	----	100	mg/kg	----	<100	<100	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	**150**	<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	<0.5	**6.0**
Ethylbenzene	100-41-4	0.5	mg/kg	----	<0.5	<0.5	<0.5	**1.8**
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	----	<0.5	<0.5	<0.5	**9.7**
ortho-Xylene	95-47-6	0.5	mg/kg	----	<0.5	<0.5	<0.5	**4.5**
^ Sum of BTEX	----	0.2	mg/kg	----	<0.2	<0.2	<0.2	**22.0**
^ Total Xylenes	----	0.5	mg/kg	----	<0.5	<0.5	<0.5	**14.2**
Naphthalene	91-20-3	1	mg/kg	----	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	----	**84.6**	**78.5**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	----	**74.9**	**76.4**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	----	**92.0**	**84.8**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.5	%	----	**79.2**	**72.5**	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%	----	**95.8**	**89.5**	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%	----	**73.5**	**62.4**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.5	%	----	**119**	**122**	----	----
Anthracene-d10	1719-06-8	0.5	%	----	**99.3**	**103**	----	----
4-Terphenyl-d14	1718-51-0	0.5	%	----	**92.4**	**91.9**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	----	**82.7**	**82.9**	**97.3**	**99.6**
Toluene-D8	2037-26-5	0.2	%	----	**78.8**	**84.5**	**99.0**	**97.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	QS13	QS17	QS19	Trip Blank	Trip Spike
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	16-Jun-2022 00:00	16-Jun-2022 00:00
Compound	CAS Number	LOR	Unit	ES2222500-111	ES2222500-114	ES2222500-115	ES2222500-116	ES2222500-117
				Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued								
4-Bromofluorobenzene	460-00-4	0.2	%	**----**	**82.9**	**89.4**	**104**	**91.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	TSC	----	----	----	----
				Sampling date / time	23-Jun-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2222500-126	--------	--------	--------	--------
					Result	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg		**6.5**	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		**1.9**	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		**10.4**	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		**4.8**	----	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		**23.6**	----	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		**15.2**	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**116**	----	----	----	----
Toluene-D8	2037-26-5	0.2	%		**113**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		**111**	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB1	----	----	----	----
				Sampling date / time	23-Jun-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2222500-118	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved 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	----	----	----	----
EG035F: Dissolved 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	----	----	----	----
^ **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	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	RB1	----	----	----	----
				Sampling date / time	23-Jun-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2222500-118	--------	--------	--------	--------
					Result	----	----	----	----
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	%		**26.0**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**64.8**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**59.2**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**62.6**	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		**85.4**	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**77.9**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**115**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**110**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**107**	----	----	----	----

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
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	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

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	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2222500**	Page	: 1 of 29
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Order number	: 21075	Date Analysis Commenced	: 29-Jun-2022
C-O-C number	: ----	Issue Date	: 15-Jul-2022
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 126		
No. of samples analysed	: 92		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, 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.

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4434945)									
ES2222500-001	TPB29_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	1	2	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	12	# 26	77.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	4	7	52.3	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	30	37	22.9	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	45	68	40.6	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	96	90	6.6	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	227	198	13.5	0% - 20%
ES2222500-014	TPB34_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	16	20	18.4	0% - 50%
		EG005T: Chromium	7440-47-3	2	mg/kg	50	52	4.6	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	40	38	5.4	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	46	48	4.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	271	299	9.9	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	601	675	11.5	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	873	1040	17.3	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4434947)									
ES2222500-026	TPB39_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	64	# 48	28.2	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	19	# 44	79.0	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	18	18	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	69	71	2.9	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	284	291	2.4	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	235	287	19.9	0% - 20%
ES2222500-038	TPB44_0.6-0.7	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	52	52	0.0	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: 4434947) - continued									
ES2222500-038	TPB44_0.6-0.7	EG005T: Nickel	7440-02-0	2	mg/kg	19	20	6.2	0% - 50%
		EG005T: Arsenic	7440-38-2	5	mg/kg	11	10	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	28	28	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	16	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	32	33	4.2	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4435489)									
ES2222500-052	TPB50_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	1	1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	19	20	6.5	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	13	13	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	31	37	17.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	210	204	2.8	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	348	425	20.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	564	641	12.9	0% - 20%
ES2222500-065	TPC03_0.0-0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	124	105	16.1	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	16	15	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	19	16	15.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	24	21	13.3	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	50	48	4.6	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	17	20	14.3	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4435491)									
ES2222500-080	TPC09_0.0.0.1	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	24	24	0.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	12	11	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	42	43	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	212	205	3.5	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	908	829	9.2	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	295	330	11.3	0% - 20%
ES2222500-095	TPC15_0.3-0.4	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	33	29	12.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	8	8	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	<5	43.5	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	18	13	37.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	12	10	25.3	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	11	15	27.1	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4435560)									
ES2221974-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	8	6	31.1	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	2	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: 4435560) - continued									
ES2221974-001	Anonymous	EG005T: Copper	7440-50-8	5	mg/kg	24	21	15.5	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	12	14	16.9	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	12	11	0.0	No Limit
ES2221974-012	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	3	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	251	257	2.5	0% - 20%
		EG005T: Lead	7439-92-1	5	mg/kg	19	15	23.4	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	34	32	3.2	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4456261)									
ES2222500-091	TPC13_0.6-0.7	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	59	# 39	40.5	0% - 20%
		EG005T: Nickel	7440-02-0	2	mg/kg	8	10	13.4	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	<5	18.7	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	14	11	19.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	18	6.1	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	11	18	49.2	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4434949)									
ES2222500-003	TPB30_0.0-0.1	EA055: Moisture Content	----	0.1	%	18.8	20.7	9.5	0% - 20%
ES2222500-017	TPB35_0. 3-0.4	EA055: Moisture Content	----	0.1	%	9.2	7.2	24.1	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4434950)									
ES2222500-029	TPB40_0.3-0.4	EA055: Moisture Content	----	0.1	%	21.0	18.5	12.7	0% - 20%
ES2222500-041	TPB46_0.3-0.4	EA055: Moisture Content	----	0.1	%	11.8	15.0	24.0	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4435493)									
ES2222500-055	BHB51_0.0-0.1	EA055: Moisture Content	----	0.1	%	17.0	17.9	5.1	0% - 50%
ES2222500-070	TPC05_0.0--0.1	EA055: Moisture Content	----	0.1	%	22.1	23.6	6.6	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4435494)									
ES2222500-082	TPC10_0.0-0.1	EA055: Moisture Content	----	0.1	%	21.7	23.6	8.4	0% - 20%
ES2222500-099	BHD02_0.0-0.1	EA055: Moisture Content	----	0.1	%	18.5	19.8	6.9	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4435564)									
ES2221974-003	Anonymous	EA055: Moisture Content	----	0.1	%	22.3	23.1	3.4	0% - 20%
ES2222500-108	QS07	EA055: Moisture Content	----	0.1	%	11.5	11.7	1.5	0% - 50%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4434946)									
ES2222500-001	TPB29_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222500-014	TPB34_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.2	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 4434948)									
ES2222500-026	TPB39_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222500-038	TPB44_0.6-0.7	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: 4435490)									
ES2222500-052	TPB50_0.0-0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2222500-065	TPC03_0.0-0.1	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: 4435492)									
ES2222500-080	TPC09_0.0.0.1	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.1	0.0	No Limit
ES2222500-095	TPC15_0.3-0.4	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: 4435561)									
ES2221974-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2221974-012	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: 4456262)									
ES2222500-091	TPC13_0.6-0.7	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4425701)									
ES2222500-012	TPB33_0.0-0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 4425829)									
ES2222500-080	TPC09_0.0.0.1	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4425700)									
ES2222500-012	TPB33_0.0-0.1	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
EP068A: Organochlorine Pesticides (OC) (QC Lot: 4425828)									
ES2222500-080	TPC09_0.0.0.1	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

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: 4425828) - continued									
ES2222500-080	TPC09_0.0.0.1	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	1.03	1.15	10.8	0% - 20%
		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	0.26	0.31	15.0	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	0.5	0.4	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: 4425700)									
ES2222500-012	TPB33_0.0-0.1	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
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 4425828)									

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: 4425828) - continued									
ES2222500-080	TPC09_0.0.0.1	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
EP075(SIM)A: Phenolic Compounds (QC Lot: 4425698)									
ES2222500-045	TPB48_0.0-0.1	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
ES2222500-012	TPB33_0.0-0.1	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

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: 4425698) - continued									
ES2222500-012	TPB33_0.0-0.1	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: 4425827)									
ES2222500-103	BHD04_0.0-0.1	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
ES2222500-080	TPC09_0.0.0.1	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: 4425698)									
ES2222500-045	TPB48_0.0-0.1	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	0.6	1.0	47.9	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	1.7	2.2	25.5	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	1.8	2.3	24.1	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	0.8	1.0	19.4	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	0.9	1.0	14.6	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: 4425698) - continued									
ES2222500-045	TPB48_0.0-0.1	EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	1.2	1.3	9.9	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	0.9	1.0	16.8	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	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	0.7	0.7	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	9.2	11.1	18.7	0% - 20%
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	1.2	1.3	10.6	No Limit
ES2222500-012	TPB33_0.0-0.1	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: 4425827)									
ES2222500-103	BHD04_0.0-0.1	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

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: 4425827) - continued									
ES2222500-103	BHD04_0.0-0.1	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
ES2222500-080	TPC09_0.0.0.1	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
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4425699)									
ES2222500-045	TPB48_0.0-0.1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	110	120	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2222500-012	TPB33_0.0-0.1	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: 4425826)									
ES2222500-103	BHD04_0.0-0.1	EP071: C15 - C28 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 Petroleum Hydrocarbons (QC Lot: 4425826) - continued									
ES2222500-103	BHD04_0.0-0.1	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
ES2222500-080	TPC09_0.0.0.1	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: 4431093)									
ES2221816-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2222555-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4431921)									
ES2222500-003	TPB30_0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2222500-045	TPB48_0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4431922)									
ES2222500-080	TPC09_0.0.0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2222500-103	BHD04_0.0-0.1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4437293)									
ES2222038-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2223088-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4425699)									
ES2222500-045	TPB48_0.0-0.1	EP071: >C16 - C34 Fraction	----	100	mg/kg	150	160	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
ES2222500-012	TPB33_0.0-0.1	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: 4425826)									
ES2222500-103	BHD04_0.0-0.1	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
ES2222500-080	TPC09_0.0.0.1	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: 4431093)									
ES2221816-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2222555-001	Anonymous	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: 4431921)									
ES2222500-003	TPB30_0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2222500-045	TPB48_0.0-0.1	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: 4431922)									

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: 4431922) - continued									
ES2222500-080	TPC09_0.0.0.1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2222500-103	BHD04_0.0-0.1	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: 4437293)									
ES2222038-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2223088-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 4431093)									
ES2221816-001	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
ES2222555-001	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
EP080: BTEXN (QC Lot: 4431921)									
ES2222500-003	TPB30_0.0-0.1	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
ES2222500-045	TPB48_0.0-0.1	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: 4431922)									
ES2222500-080	TPC09_0.0.0.1	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

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 4431922) - continued									
ES2222500-080	TPC09_0.0.0.1	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
ES2222500-103	BHD04_0.0-0.1	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: 4437293)									
ES2222038-001	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
ES2223088-001	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

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4435887)									
ES2222548-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0002	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.004	0.003	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.100	0.106	5.0	0% - 20%
ES2222710-006	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4435887) - continued									
ES2222710-006	Anonymous	EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.004	0.004	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 4435888)									
ES2222477-020	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2222548-015	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 4429691)									
CA2204314-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2222620-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	270	290	7.7	0% - 50%
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 4429691)									
CA2204314-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2222620-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	300	330	8.0	0% - 50%
EP080: BTEXN (QC Lot: 4429691)									
CA2204314-001	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
ES2222620-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	4	4	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	120	127	5.8	0% - 20%
		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 Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434945)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	101	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	113	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	113	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	95.9	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	102	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	95.8	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434947)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	106	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	113	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	111	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	101	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	107	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	99.2	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435489)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	98.5	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	74.1	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	104	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	104	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	99.0	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	96.8	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: 4435491)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	96.5	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	88.7	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	108	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	109	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	100	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	98.7	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	92.3	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435560)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	98.6	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	98.2	70.0	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435560) - continued								
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	104	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	113	82.0	119
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	96.2	80.0	120
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	95.1	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4456261)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	93.4	88.0	113
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	91.9	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	103	68.0	132
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	102	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	97.6	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
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434946)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	104	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434948)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	89.1	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435490)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	81.0	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435492)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	84.5	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435561)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	91.4	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4456262)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	85.0	70.0	125
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425701)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	112	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425829)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	120	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425700)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.1	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.2	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	89.8	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.8	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.6	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	69.0	115

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425700) - continued								
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	92.0	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.6	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.9	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	91.8	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.3	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.2	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.2	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.1	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	93.2	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.1	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	88.0	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	82.2	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425828)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.9	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.9	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	87.3	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.4	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.0	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.1	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	98.3	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.0	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	92.6	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.1	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	95.3	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.2	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	78.6	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	89.6	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	79.9	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425700)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	82.1	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.8	62.0	128

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425700) - continued								
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	82.4	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	81.0	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	89.7	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	88.4	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	91.6	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	90.4	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.7	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	91.6	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.0	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.1	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.5	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	90.9	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.9	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.6	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	79.4	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425828)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	81.2	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	80.5	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	104	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	90.7	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	90.3	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	77.7	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.3	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	94.3	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	78.1	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	93.0	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.4	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	98.0	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	76.9	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	96.2	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	94.5	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.7	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	52.9	41.0	123
EP075(SIM)A: Phenolic Compounds (QCLot: 4425698)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	99.6	71.0	125

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 4425698) - continued								
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	92.9	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	90.4	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	95.0	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	77.9	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	94.9	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	90.2	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	82.6	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	86.8	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	86.6	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	66.2	10.0	80.0
EP075(SIM)A: Phenolic Compounds (QCLot: 4425827)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	94.9	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	98.1	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	91.2	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	92.6	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	59.3	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	89.1	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	84.3	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	90.4	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	86.8	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	97.3	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	96.3	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	23.1	10.0	80.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425698)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	102	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	101	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	101	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	104	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	98.2	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	112	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	95.4	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	99.9	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	96.0	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	103	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	100	70.0	126

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425698) - continued								
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	102	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	98.4	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425827)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	99.8	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	94.9	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	124	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	108	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	98.4	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	109	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	93.1	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	100	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	83.2	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	90.1	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	92.8	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	64.3	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	63.4	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	64.3	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425699)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	113	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	99.4	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	95.0	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425826)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	102	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	97.5	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	96.2	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431093)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	105	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431921)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	86.9	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431922)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	110	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4437293)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	93.3	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425699)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425699) - continued								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	108	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	96.4	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	94.5	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425826)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	104	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	94.6	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	101	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431093)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	119	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431921)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	88.5	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431922)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	109	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4437293)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	96.6	68.4	128
EP080: BTEXN (QCLot: 4431093)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	99.7	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	99.4	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	99.8	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	100	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	102	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	101	63.0	119
EP080: BTEXN (QCLot: 4431921)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	99.3	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	97.9	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	97.8	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	97.4	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	98.1	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	90.4	63.0	119
EP080: BTEXN (QCLot: 4431922)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	108	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	103	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	99.6	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	102	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	101	68.0	120

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 4431922) - continued								
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	84.1	63.0	119
EP080: BTEXN (QCLot: 4437293)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	85.6	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	90.4	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	90.6	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	92.4	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	93.4	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	87.2	63.0	119

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4435887)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	94.3	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	93.6	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	95.1	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	93.2	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	89.2	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	94.3	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	95.8	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 4435888)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	91.6	83.0	105
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425553)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	68.6	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	69.7	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	69.8	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	72.4	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	73.0	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	74.6	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	84.6	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	86.1	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	72.4	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	75.9	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	79.8	61.7	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	72.9	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	73.4	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	70.3	59.9	118

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425553) - continued								
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	69.2	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	73.7	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425552)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	72.4	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	74.0	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	85.7	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429691)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	92.6	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425552)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	66.7	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	70.7	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	64.1	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429691)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	94.2	75.0	127
EP080: BTEXN (QCLot: 4429691)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	94.4	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	98.0	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	96.8	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	94.6	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	94.7	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	96.2	70.0	120

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	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434945)							
ES2222500-001	TPB29_0.0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	112	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	106	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	110	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	118	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	130	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	108	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	124	66.0	133

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4434947)							
ES2222500-026	TPB39_0.0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	96.5	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	108	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	73.9	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	106	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	86.2	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	107	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	94.2	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435489)							
ES2222500-052	TPB50_0.0-0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	110	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	102	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	103	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	100	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	120	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	102	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	117	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435491)							
ES2222500-080	TPC09_0.0.0.1	EG005T: Arsenic	7440-38-2	50 mg/kg	114	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	103	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	99.9	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	107	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	117	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.8	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	121	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4435560)							
ES2221974-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	96.5	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	100	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	98.3	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	99.6	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	114	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.3	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	103	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4456261)							
ES2222500-091	TPC13_0.6-0.7	EG005T: Arsenic	7440-38-2	50 mg/kg	96.1	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	104	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	99.0	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	106	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	106	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	108	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4456261) - continued							
ES2222500-091	TPC13_0.6-0.7	EG005T: Zinc	7440-66-6	250 mg/kg	106	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434946)							
ES2222500-001	TPB29_0.0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	91.4	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4434948)							
ES2222500-026	TPB39_0.0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	92.8	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435490)							
ES2222500-052	TPB50_0.0-0.1	EG035T: Mercury	7439-97-6	5 mg/kg	87.1	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435492)							
ES2222500-080	TPC09_0.0.0.1	EG035T: Mercury	7439-97-6	5 mg/kg	86.8	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4435561)							
ES2221974-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	92.6	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 4456262)							
ES2222500-091	TPC13_0.6-0.7	EG035T: Mercury	7439-97-6	5 mg/kg	99.8	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425701)							
ES2222500-012	TPB33_0.0-0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	123	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 4425829)							
ES2222500-080	TPC09_0.0.0.1	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	116	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425700)							
ES2222500-012	TPB33_0.0-0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	103	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	105	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	113	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	108	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	87.6	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	106	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 4425828)							
ES2222500-080	TPC09_0.0.0.1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	90.0	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	92.8	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	99.6	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	99.9	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	79.9	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	96.7	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425700)							
ES2222500-012	TPB33_0.0-0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	91.0	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	99.6	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	99.6	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425700) - continued							
ES2222500-012	TPB33_0.0-0.1	EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	105	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	91.9	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 4425828)							
ES2222500-080	TPC09_0.0.0.1	EP068: Diazinon	333-41-5	0.5 mg/kg	85.6	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	92.6	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	84.9	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	100	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	94.6	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 4425698)							
ES2222500-012	TPB33_0.0-0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	103	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	106	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	94.5	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	93.7	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	67.1	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 4425827)							
ES2222500-080	TPC09_0.0.0.1	EP075(SIM): Phenol	108-95-2	10 mg/kg	92.3	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	98.7	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	79.1	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	85.4	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	71.0	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425698)							
ES2222500-012	TPB33_0.0-0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	106	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	121	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 4425827)							
ES2222500-080	TPC09_0.0.0.1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	101	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	113	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425699)							
ES2222500-012	TPB33_0.0-0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	97.2	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	102	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	110	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4425826)							
ES2222500-080	TPC09_0.0.0.1	EP071: C10 - C14 Fraction	----	480 mg/kg	94.2	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	100	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	108	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431093)							
ES2221816-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	115	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431921)							
ES2222500-003	TPB30_0.0-0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	96.2	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4431922)							
ES2222500-080	TPC09_0.0.0.1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	101	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4437293)							
ES2222038-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	103	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425699)							
ES2222500-012	TPB33_0.0-0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	99.1	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	108	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	109	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4425826)							
ES2222500-080	TPC09_0.0.0.1	EP071: >C10 - C16 Fraction	----	860 mg/kg	97.3	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	105	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	110	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431093)							
ES2221816-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	109	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431921)							
ES2222500-003	TPB30_0.0-0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	96.6	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4431922)							
ES2222500-080	TPC09_0.0.0.1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	99.5	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4437293)							
ES2222038-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	111	70.0	130
EP080: BTEXN (QCLot: 4431093)							
ES2221816-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	101	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	101	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	101	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	101	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	91.6	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	97.5	70.0	130
EP080: BTEXN (QCLot: 4431921)							
ES2222500-003	TPB30_0.0-0.1	EP080: Benzene	71-43-2	2.5 mg/kg	85.5	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	80.4	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	84.8	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	83.0	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	82.4	70.0	130

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP080: BTEXN (QCLot: 4431921) - continued							
ES2222500-003	TPB30_0.0-0.1	EP080: Naphthalene	91-20-3	2.5 mg/kg	81.1	70.0	130
EP080: BTEXN (QCLot: 4431922)							
ES2222500-080	TPC09_0.0.0.1	EP080: Benzene	71-43-2	2.5 mg/kg	97.5	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	88.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	88.9	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	89.3	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	89.0	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	73.1	70.0	130
EP080: BTEXN (QCLot: 4437293)							
ES2222038-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	100	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	101	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	103	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	100	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	102	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	105	70.0	130

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4435887)							
ES2222477-020	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	110	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	110	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	108	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	111	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	123	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	113	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	112	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 4435888)							
ES2222212-001	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	86.2	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 4429691)							
CA2204314-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	112	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 4429691)							
CA2204314-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	114	70.0	130
EP080: BTEXN (QCLot: 4429691)							
CA2204314-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	95.2	70.0	130

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: 4429691) - continued							
CA2204314-001	Anonymous	EP080: Toluene	108-88-3	25 µg/L	92.0	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	96.5	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	94.2	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	96.1	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	98.6	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2222500**	Page	: 1 of 18
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Site	: ----	Issue Date	: 15-Jul-2022
Sampler	: ZAC LAUGHLAN	No. of samples received	: 126
Order number	: 21075	No. of samples analysed	: 92

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.**
- **NO Matrix Spike outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

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	ES2222500--001	TPB29_0.0-0.1	**Chromium**	7440-47-3	77.0 %	0% - 50%	**RPD exceeds LOR based limits**
EG005(ED093)T: Total Metals by ICP-AES	ES2222500--026	TPB39_0.0-0.1	**Chromium**	7440-47-3	28.2 %	0% - 20%	**RPD exceeds LOR based limits**
EG005(ED093)T: Total Metals by ICP-AES	ES2222500--091	TPC13_0.6-0.7	**Chromium**	7440-47-3	40.5 %	0% - 20%	**RPD exceeds LOR based limits**
EG005(ED093)T: Total Metals by ICP-AES	ES2222500--026	TPB39_0.0-0.1	**Nickel**	7440-02-0	79.0 %	0% - 20%	**RPD exceeds LOR based limits**

Outliers : Analysis Holding Time Compliance

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
EA055: Moisture Content (Dried @ 105-110°C)						
Soil Glass Jar - Unpreserved						
TPC13_0.6-0.7	----	----	----	13-Jul-2022	07-Jul-2022	**6**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	9	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	12	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	9	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	12	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

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
TPB29_0.0-0.1,	TPB29_0.3-0.4,	**22-Jun-2022**	**----**	----	----	**01-Jul-2022**	06-Jul-2022	✓
TPB30_0.0-0.1,	TPB30_0.3-0 .4,							
TPB31_0.0-0.1,	TPB31_0.3-0.4,							
TPB32_0.0-0.1,	TPB32_0.3-0.4,							
TPB33_0.0-0.1,	TPB33_0.3-0.4,							
TPB34_0.0-0.1,	TPB34_0.3-0.4,							
TPB35_0.0-0.1,	TPB35_0. 3-0.4,							
TPB36_0.0-0.1,	TPB36_0.3-0.4,							
TPB37_0.0-0.1,	TPB37_0.3-0.4,							
TPB38_0.0-0.1,	TPB38_0.5-0.6,							
TPB39_0.0-0.1,	TPB40_0.0-0.1,							
TPB40_0.3-0.4,	TPB41_0.0-0.1,							
TPB41_0.3-0.4,	TPB42_0.0-0.1,							
TPB42_0.3-0.4,	TPB43_0.0-0.1,							
TPB43_0.3-0.4,	TPB44_0.0 -0.1,							
TPB44_0.6-0.7								
Soil Glass Jar - Unpreserved (EA055)								
TPB45_0.0-0.1,	TPB46_0.0-0.1,	**23-Jun-2022**	**----**	----	----	**01-Jul-2022**	07-Jul-2022	✓
TPB46_0.3-0.4,	TPB47 _0.0-0.1,							
TPB47 0.3-0.4,	TPB48_0.0-0.1,							
TPB48_0.1-0.11,	TPB49_0.0-0.1,							
TPB49_0.5-0.6								
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							
TPB50_0.0-0.1, TPB50_0.3-0.4, BHB51_0.0-0.1, BHB51_0.3-0.4, BHB52_0.0-0.1, BHB52_0.3-0.4, TPC01_0.0-0.1, TPC01_0.3.0.4, TPC02_0_0.0.1, TPC02_0.3-0.4, TPC03_0.0-0.1, TPC04_0.0.0.1, TPC04_0.3.0.4, TPC05_0.0--0.1, TPC05_0.3-0 .4, TPC06_0.0·0.1, QS01, TPC06_0.4-0.5, TPC07_0.0-0.1, TPC08_0.0-0.1, TPC08_0.3-0.4, TPC09_0.0.0.1, TPC09_0.3-0.4, TPC10_0.0-0.1, TPC11_0.0.0.1, TPC11_0.3.0.4, TPC12_0.0.0.1, TPC13_0.0.0.1, TPC14_0.0-0.1, TPC15_0.0-0.1, TPC15_0.3-0.4, BHD01_0.0-0.1, 8HD01_0.3-0.4, QS03, QS05, BHD02_0.0-0.1, BHD02_0.3-0.4, BHD03_0.0-0.1, BHD03_0.3-0.4, BHD04_0.0-0.1, BHD04_0.3-0.4, QS07, QS09, QS11, QS13, QS17, QS19	**23-Jun-2022**	**----**	----	----	**02-Jul-2022**	07-Jul-2022	✓
Soil Glass Jar - Unpreserved (EA055)							
TPC13_0.6-0.7	**23-Jun-2022**	**----**	----	----	**13-Jul-2022**	07-Jul-2022	×

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								
Soil Glass Jar - Unpreserved (EG005T)								
TPB29_0.0-0.1,	TPB29_0.3-0.4,	**22-Jun-2022**	**01-Jul-2022**	19-Dec-2022	✓	**04-Jul-2022**	19-Dec-2022	✓
TPB30_0.0-0.1,	TPB30_0.3-0 .4,							
TPB31_0.0-0.1,	TPB31_0.3-0.4,							
TPB32_0.0-0.1,	TPB32_0.3-0.4,							
TPB33_0.0-0.1,	TPB33_0.3-0.4,							
TPB34_0.0-0.1,	TPB34_0.3-0.4,							
TPB35_0.0-0.1,	TPB35_0. 3-0.4,							
TPB36_0.0-0.1,	TPB36_0.3-0.4,							
TPB37_0.0-0.1,	TPB37_0.3-0.4,							
TPB38_0.0-0.1,	TPB38_0.5-0.6,							
TPB39_0.0-0.1,	TPB40_0.0-0.1,							
TPB40_0.3-0.4,	TPB41_0.0-0.1,							
TPB41_0.3-0.4,	TPB42_0.0-0.1,							
TPB42_0.3-0.4,	TPB43_0.0-0.1,							
TPB43_0.3-0.4,	TPB44_0.0 -0.1,							
TPB44_0.6-0.7								
Soil Glass Jar - Unpreserved (EG005T)								
TPB45_0.0-0.1,	TPB46_0.0-0.1,	**23-Jun-2022**	**01-Jul-2022**	20-Dec-2022	✓	**04-Jul-2022**	20-Dec-2022	✓
TPB46_0.3-0.4,	TPB47 _0.0-0.1,							
TPB47 0.3-0.4,	TPB48_0.0-0.1,							
TPB48_0.1-0.11,	TPB49_0.0-0.1,							
TPB49_0.5-0.6								
Soil Glass Jar - Unpreserved (EG005T)								

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							
TPB50_0.0-0.1, TPB50_0.3-0.4, BHB51_0.0-0.1, BHB51_0.3-0.4, BHB52_0.0-0.1, BHB52_0.3-0.4, TPC01_0.0-0.1, TPC01_0.3.0.4, TPC02_0_0.0.1, TPC02_0.3-0.4, TPC03_0.0-0.1, TPC04_0.0.0.1, TPC04_0.3.0.4, TPC05_0.0--0.1, TPC05_0.3-0 .4, TPC06_0.0·0.1, QS01, TPC06_0.4-0.5, TPC07_0.0-0.1, TPC08_0.0-0.1, TPC08_0.3-0.4, TPC09_0.0.0.1, TPC09_0.3-0.4, TPC10_0.0-0.1, TPC11_0.0.0.1, TPC11_0.3.0.4, TPC12_0.0.0.1, TPC13_0.0.0.1, TPC14_0.0-0.1, TPC15_0.0-0.1, TPC15_0.3-0.4, BHD01_0.0-0.1, 8HD01_0.3-0.4, QS03, QS05, BHD02_0.0-0.1, BHD02_0.3-0.4, BHD03_0.0-0.1, BHD03_0.3-0.4, BHD04_0.0-0.1, BHD04_0.3-0.4, QS07, QS09, QS11, QS13, QS17, QS19	**23-Jun-2022**	**02-Jul-2022**	20-Dec-2022	✓	**04-Jul-2022**	20-Dec-2022	✓
Soil Glass Jar - Unpreserved (EG005T)							
TPC13_0.6-0.7	**23-Jun-2022**	**13-Jul-2022**	20-Dec-2022	✓	**13-Jul-2022**	20-Dec-2022	✓

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								
Soil Glass Jar - Unpreserved (EG035T)								
TPB29_0.0-0.1,	TPB29_0.3-0.4,	**22-Jun-2022**	**01-Jul-2022**	20-Jul-2022	✓	**04-Jul-2022**	20-Jul-2022	✓
TPB30_0.0-0.1,	TPB30_0.3-0 .4,							
TPB31_0.0-0.1,	TPB31_0.3-0.4,							
TPB32_0.0-0.1,	TPB32_0.3-0.4,							
TPB33_0.0-0.1,	TPB33_0.3-0.4,							
TPB34_0.0-0.1,	TPB34_0.3-0.4,							
TPB35_0.0-0.1,	TPB35_0. 3-0.4,							
TPB36_0.0-0.1,	TPB36_0.3-0.4,							
TPB37_0.0-0.1,	TPB37_0.3-0.4,							
TPB38_0.0-0.1,	TPB38_0.5-0.6,							
TPB39_0.0-0.1,	TPB40_0.0-0.1,							
TPB40_0.3-0.4,	TPB41_0.0-0.1,							
TPB41_0.3-0.4,	TPB42_0.0-0.1,							
TPB42_0.3-0.4,	TPB43_0.0-0.1,							
TPB43_0.3-0.4,	TPB44_0.0 -0.1,							
TPB44_0.6-0.7								
Soil Glass Jar - Unpreserved (EG035T)								
TPB45_0.0-0.1,	TPB46_0.0-0.1,	**23-Jun-2022**	**01-Jul-2022**	21-Jul-2022	✓	**04-Jul-2022**	21-Jul-2022	✓
TPB46_0.3-0.4,	TPB47 _0.0-0.1,							
TPB47 0.3-0.4,	TPB48_0.0-0.1,							
TPB48_0.1-0.11,	TPB49_0.0-0.1,							
TPB49_0.5-0.6								
Soil Glass Jar - Unpreserved (EG035T)								

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									
TPB50_0.0-0.1,	TPB50_0.3-0.4,		**23-Jun-2022**	**02-Jul-2022**	21-Jul-2022	✓	**04-Jul-2022**	21-Jul-2022	✓
BHB51_0.0-0.1,	BHB51_0.3-0.4,								
BHB52_0.0-0.1,	BHB52_0.3-0.4,								
TPC01_0.0-0.1,	TPC01_0.3.0.4,								
TPC02_0_0.0.1,	TPC02_0.3-0.4,								
TPC03_0.0-0.1,	TPC04_0.0.0.1,								
TPC04_0.3.0.4,	TPC05_0.0--0.1,								
TPC05_0.3-0 .4,	TPC06_0.0·0.1,								
QS01,	TPC06_0.4-0.5,	TPC07_0.0-0.1,							
TPC08_0.0-0.1,	TPC08_0.3-0.4,								
TPC09_0.0.0.1,	TPC09_0.3-0.4,								
TPC10_0.0-0.1,	TPC11_0.0.0.1,								
TPC11_0.3.0.4,	TPC12_0.0.0.1,								
TPC13_0.0.0.1,	TPC14_0.0-0.1,								
TPC15_0.0-0.1,	TPC15_0.3-0.4,								
BHD01_0.0-0.1,	8HD01_0.3-0.4,								
BHD02_0.0-0.1,	BHD02_0.3-0.4,								
BHD03_0.0-0.1,	BHD03_0.3-0.4,								
BHD04_0.0-0.1,	BHD04_0.3-0.4								
Soil Glass Jar - Unpreserved (EG035T)									
QS03,	QS05,		**23-Jun-2022**	**02-Jul-2022**	21-Jul-2022	✓	**05-Jul-2022**	21-Jul-2022	✓
QS07,	QS09,								
QS11,	QS13,								
QS17,	QS19								
Soil Glass Jar - Unpreserved (EG035T)									
TPC13_0.6-0.7			**23-Jun-2022**	**13-Jul-2022**	21-Jul-2022	✓	**14-Jul-2022**	21-Jul-2022	✓
EP066: Polychlorinated Biphenyls (PCB)									
Soil Glass Jar - Unpreserved (EP066)									
TPB33_0.0-0.1,	TPB38_0.0-0.1,		**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
TPB41_0.0-0.1,	TPB43_0.0-0.1								
Soil Glass Jar - Unpreserved (EP066)									
TPB45_0.0-0.1,	TPB48_0.0-0.1,		**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
BHB52_0.0-0.1,	TPC01_0.0-0.1,								
TPC04_0.0.0.1,	TPC06_0.0·0.1								
Soil Glass Jar - Unpreserved (EP066)									
TPC09_0.0.0.1,	TPC13_0.0.0.1,		**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**02-Jul-2022**	09-Aug-2022	✓
TPC15_0.0-0.1,	BHD01_0.0-0.1,								
BHD02_0.0-0.1,	BHD03_0.0-0.1,								
BHD04_0.0-0.1,	QS05,								
QS17,	QS19								

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
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
TPB33_0.0-0.1, TPB38_0.0-0.1, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
TPB45_0.0-0.1, TPB48_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC04_0.0.0.1, TPC06_0.0·0.1	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
TPC09_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, BHD01_0.0-0.1, BHD02_0.0-0.1, BHD03_0.0-0.1, BHD04_0.0-0.1, QS05, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**02-Jul-2022**	09-Aug-2022	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068)							
TPB33_0.0-0.1, TPB38_0.0-0.1, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
TPB45_0.0-0.1, TPB48_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC04_0.0.0.1, TPC06_0.0·0.1	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP068)							
TPC09_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, BHD01_0.0-0.1, BHD02_0.0-0.1, BHD03_0.0-0.1, BHD04_0.0-0.1, QS05, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**02-Jul-2022**	09-Aug-2022	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPB33_0.0-0.1, TPB38_0.0-0.1, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPB45_0.0-0.1, TPB48_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC04_0.0.0.1, TPC06_0.0·0.1	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPC09_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, BHD01_0.0-0.1, BHD02_0.0-0.1, BHD03_0.0-0.1, BHD04_0.0-0.1, QS05, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**03-Jul-2022**	09-Aug-2022	✓

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							
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPB30_0.0-0.1, TPB33_0.0-0.1, TPB35_0.0-0.1, TPB36_0.3-0.4, TPB38_0.0-0.1, TPB38_0.5-0.6, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPB45_0.0-0.1, TPB47 0.3-0.4, TPB48_0.0-0.1, TPB48_0.1-0.11, TPB50_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC02_0_0.0.1, TPC04_0.0.0.1, TPC05_0.0--0.1, TPC06_0.0·0.1, TPC08_0.0-0.1	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	09-Aug-2022	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
TPC09_0.0.0.1, TPC11_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, BHD01_0.0-0.1, 8HD01_0.3-0.4, BHD02_0.0-0.1, BHD02_0.3-0.4, BHD03_0.0-0.1, BHD03_0.3-0.4, BHD04_0.0-0.1, BHD04_0.3-0.4, QS01, QS05, QS07, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**03-Jul-2022**	09-Aug-2022	✓

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							
Soil Glass Jar - Unpreserved (EP080)							
Trip Blank	**16-Jun-2022**	**30-Jun-2022**	30-Jun-2022	✓	**30-Jun-2022**	30-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP080)							
TPB30_0.0-0.1, TPB33_0.0-0.1, TPB35_0.0-0.1, TPB36_0.3-0.4, TPB38_0.0-0.1, TPB38_0.5-0.6, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)							
TPB45_0.0-0.1, TPB47 0.3-0.4, TPB48_0.0-0.1, TPB48_0.1-0.11, TPB50_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC02_0_0.0.1, TPC04_0.0.0.1, TPC05_0.0--0.1, TPC06_0.0·0.1, TPC08_0.0-0.1, TPC09_0.0.0.1, TPC11_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, QS01, BHD01_0.0-0.1, 8HD01_0.3-0.4, BHD02_0.0-0.1, BHD02_0.3-0.4, BHD03_0.0-0.1, BHD03_0.3-0.4, BHD04_0.0-0.1, BHD04_0.3-0.4, QS05, QS07, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓

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							
Soil Glass Jar - Unpreserved (EP080)							
Trip Blank	**16-Jun-2022**	**30-Jun-2022**	30-Jun-2022	✓	**30-Jun-2022**	30-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP080)							
TPB30_0.0-0.1, TPB33_0.0-0.1, TPB35_0.0-0.1, TPB36_0.3-0.4, TPB38_0.0-0.1, TPB38_0.5-0.6, TPB41_0.0-0.1, TPB43_0.0-0.1	**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)							
TPB45_0.0-0.1, TPB47 0.3-0.4, TPB48_0.0-0.1, TPB48_0.1-0.11, TPB50_0.0-0.1, BHB52_0.0-0.1, TPC01_0.0-0.1, TPC02_0_0.0.1, TPC04_0.0.0.1, TPC05_0.0--0.1, TPC06_0.0·0.1, TPC08_0.0-0.1, TPC09_0.0.0.1, TPC11_0.0.0.1, TPC13_0.0.0.1, TPC15_0.0-0.1, QS01, BHD01_0.0-0.1, 8HD01_0.3-0.4, BHD02_0.0-0.1, BHD02_0.3-0.4, BHD03_0.0-0.1, BHD03_0.3-0.4, BHD04_0.0-0.1, BHD04_0.3-0.4, QS05, QS07, QS17, QS19	**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓

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									
Soil Glass Jar - Unpreserved (EP080)									
Trip Blank,	Trip Spike		**16-Jun-2022**	**30-Jun-2022**	30-Jun-2022	✓	**30-Jun-2022**	30-Jun-2022	✓
Soil Glass Jar - Unpreserved (EP080)									
TPB30_0.0-0.1,	TPB33_0.0-0.1,		**22-Jun-2022**	**30-Jun-2022**	06-Jul-2022	✓	**01-Jul-2022**	06-Jul-2022	✓
TPB35_0.0-0.1,	TPB36_0.3-0.4,								
TPB38_0.0-0.1,	TPB38_0.5-0.6,								
TPB41_0.0-0.1,	TPB43_0.0-0.1								
Soil Glass Jar - Unpreserved (EP080)									
TSC			**23-Jun-2022**	**04-Jul-2022**	07-Jul-2022	✓	**04-Jul-2022**	07-Jul-2022	✓
Soil Glass Jar - Unpreserved (EP080)									
TPB45_0.0-0.1,	TPB47 0.3-0.4,		**23-Jun-2022**	**30-Jun-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓
TPB48_0.0-0.1,	TPB48_0.1-0.11,								
TPB50_0.0-0.1,	BHB52_0.0-0.1,								
TPC01_0.0-0.1,	TPC02_0_0.0.1,								
TPC04_0.0.0.1,	TPC05_0.0--0.1,								
TPC06_0.0·0.1,	TPC08_0.0-0.1,								
TPC09_0.0.0.1,	TPC11_0.0.0.1,								
TPC13_0.0.0.1,	TPC15_0.0-0.1,								
QS01,	BHD01_0.0-0.1,	8HD01_0.3-0.4,							
BHD02_0.0-0.1,	BHD02_0.3-0.4,								
BHD03_0.0-0.1,	BHD03_0.3-0.4,								
BHD04_0.0-0.1,	BHD04_0.3-0.4,								
QS05,									
QS07,	QS17,								
QS19									

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
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-F)							
RB1	**23-Jun-2022**	**----**	----	----	**03-Jul-2022**	20-Dec-2022	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG035F)							
RB1	**23-Jun-2022**	**----**	----	----	**04-Jul-2022**	07-Jul-2022	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
RB1	**23-Jun-2022**	**29-Jun-2022**	30-Jun-2022	✓	**01-Jul-2022**	08-Aug-2022	✓

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
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
RB1	**23-Jun-2022**	**29-Jun-2022**	30-Jun-2022	✓	**01-Jul-2022**	08-Aug-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
RB1	**23-Jun-2022**	**01-Jul-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
RB1	**23-Jun-2022**	**29-Jun-2022**	30-Jun-2022	✓	**01-Jul-2022**	08-Aug-2022	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
RB1	**23-Jun-2022**	**01-Jul-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
RB1	**23-Jun-2022**	**01-Jul-2022**	07-Jul-2022	✓	**01-Jul-2022**	07-Jul-2022	✓

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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	10	100	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	11	100	**11.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	11	100	**11.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	8	74	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	74	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	74	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	2	20	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	6	100	**6.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	74	**5.41**	**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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	12	**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)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	12	**8.33**	**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)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	9	**11.11**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	12	**8.33**	**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)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	12	**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
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).
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 (SnCl2) (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 SnCl2 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)
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).
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).
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.
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. 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.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 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).

Analytical Methods	Method	Matrix	Method Descriptions
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
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.
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.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2222500**

Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: drew@cavvanba.com	E-mail	: helen.simpson@alsglobal.com
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Facsimile	: +61 02 6685 5083	Facsimile	: +61-2-8784 8500
Project	: 21075	Page	: 1 of 6
Order number	: 21075	Quote number	: ES2021CAVCON0010 (SY/412/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: ZAC LAUGHLAN		

Dates

Date Samples Received	: 24-Jun-2022 15:33	Issue Date	: 12-Jul-2022
Client Requested Due Date	: 05-Jul-2022	Scheduled Reporting Date	: **05-Jul-2022**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 22	Temperature	: 2.8'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 126 / 92

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 new scheduled analysis for this work order.
- **Samples #119 (TPB45_0.3-0.4), #120 (TPB35_1.2-1.3), #121 (T1d), #122 (T2b), #123 (T3b), #124 (T4a) and #125 (T5c) were received as extra samples and will be kept on hold.**
- **This workorder was split from ES2222396**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please 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
Dissolved Mercury by FIMS : EG035F		
RB1	- Clear Plastic Bottle - Nitric Acid; Unfiltered	- Clear Plastic Bottle - Nitric Acid; Filtered
Dissolved Metals by ICP-MS - Suite A : EG020A-F		
RB1	- Clear Plastic Bottle - Nitric Acid; Unfiltered	- Clear Plastic Bottle - Nitric Acid; Filtered

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES2222500-119 : [23-Jun-2022] : TPB45_0.3-0.4 - Received as extra sample.
ES2222500-120 : [23-Jun-2022] : TPB35_1.2-1.3 - Received as extra sample.
ES2222500-121 : [20-Jun-2022] : T1d - Received as extra sample.
ES2222500-122 : [20-Jun-2022] : T2b - Received as extra sample.
ES2222500-123 : [21-Jun-2022] : T3b - Received as extra sample.
ES2222500-124 : [22-Jun-2022] : T4a - Received as extra sample.
ES2222500-125 : [23-Jun-2022] : T5c - Received as extra sample.

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	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP080 BTEXN	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222500-001	22-Jun-2022 00:00	TPB29_0.0-0.1		✓		✓			
ES2222500-002	22-Jun-2022 00:00	TPB29_0.3-0.4		✓		✓			
ES2222500-003	22-Jun-2022 00:00	TPB30_0.0-0.1		✓					✓
ES2222500-004	22-Jun-2022 00:00	TPB30_0.3-0 .4		✓		✓			
ES2222500-005	22-Jun-2022 00:00	TPB30_0.5-0 .6	✓						
ES2222500-006	22-Jun-2022 00:00	TPB31_0.0-0.1		✓		✓			
ES2222500-007	22-Jun-2022 00:00	TPB31_0.3-0.4		✓		✓			
ES2222500-008	22-Jun-2022 00:00	TPB31_0.4-0.5	✓						
ES2222500-009	22-Jun-2022 00:00	TPB32_0.0-0.1		✓		✓			
ES2222500-010	22-Jun-2022 00:00	TPB32_0.3-0.4		✓		✓			
ES2222500-011	22-Jun-2022 00:00	TPB32_1.1-1.2	✓						
ES2222500-012	22-Jun-2022 00:00	TPB33_0.0-0.1		✓				✓	
ES2222500-013	22-Jun-2022 00:00	TPB33_0.3-0.4		✓		✓			
ES2222500-014	22-Jun-2022 00:00	TPB34_0.0-0.1		✓		✓			
ES2222500-015	22-Jun-2022 00:00	TPB34_0.3-0.4		✓		✓			
ES2222500-016	22-Jun-2022 00:00	TPB35_0.0-0.1		✓					✓
ES2222500-017	22-Jun-2022 00:00	TPB35_0. 3-0.4		✓		✓			
ES2222500-018	22-Jun-2022 00:00	TPB36_0.0-0.1		✓		✓			
ES2222500-019	22-Jun-2022 00:00	TPB36_0.3-0.4		✓					✓
ES2222500-020	22-Jun-2022 00:00	TPB37_0.0-0.1		✓		✓			
ES2222500-021	22-Jun-2022 00:00	TPB37_0.3-0.4		✓		✓			
ES2222500-022	22-Jun-2022 00:00	TPB37 0.5-0.6	✓						
ES2222500-023	22-Jun-2022 00:00	TPB38_0.0-0.1		✓				✓	

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP080 BTEXN	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222500-024	22-Jun-2022 00:00	TPB38_0.3-0.4	✓						
ES2222500-025	22-Jun-2022 00:00	TPB38_0.5-0.6		✓					✓
ES2222500-026	22-Jun-2022 00:00	TPB39_0.0-0.1		✓		✓			
ES2222500-027	22-Jun-2022 00:00	TPB39_0.3-0.4	✓						
ES2222500-028	22-Jun-2022 00:00	TPB40_0.0-0.1		✓		✓			
ES2222500-029	22-Jun-2022 00:00	TPB40_0.3-0.4		✓		✓			
ES2222500-030	22-Jun-2022 00:00	TPB41_0.0-0.1		✓				✓	
ES2222500-031	22-Jun-2022 00:00	TPB41_0.3-0.4		✓		✓			
ES2222500-032	22-Jun-2022 00:00	TPB42_0.0-0.1		✓		✓			
ES2222500-033	22-Jun-2022 00:00	TPB42_0.3-0.4		✓		✓			
ES2222500-034	22-Jun-2022 00:00	TPB43_0.0-0.1		✓				✓	
ES2222500-035	22-Jun-2022 00:00	TPB43_0.3-0.4		✓		✓			
ES2222500-036	22-Jun-2022 00:00	TPB44_0.0 -0.1		✓		✓			
ES2222500-037	22-Jun-2022 00:00	TPB44_0.3 -0.4	✓						
ES2222500-038	22-Jun-2022 00:00	TPB44_0.6-0.7		✓		✓			
ES2222500-039	23-Jun-2022 00:00	TPB45_0.0-0.1		✓				✓	
ES2222500-040	23-Jun-2022 00:00	TPB46_0.0-0.1		✓		✓			
ES2222500-041	23-Jun-2022 00:00	TPB46_0.3-0.4		✓		✓			
ES2222500-042	23-Jun-2022 00:00	TPB46_0.5-0.6	✓						
ES2222500-043	23-Jun-2022 00:00	TPB47 _0.0-0.1		✓		✓			
ES2222500-044	23-Jun-2022 00:00	TPB47 0.3-0.4		✓					✓
ES2222500-045	23-Jun-2022 00:00	TPB48_0.0-0.1		✓				✓	
ES2222500-046	23-Jun-2022 00:00	TPB48_0.1-0.11		✓					✓
ES2222500-047	23-Jun-2022 00:00	TPB48_0.3-0.4	✓						
ES2222500-048	23-Jun-2022 00:00	TPB48_0.5-0.6	✓						
ES2222500-049	23-Jun-2022 00:00	TPB49_0.0-0.1		✓		✓			
ES2222500-050	23-Jun-2022 00:00	TPB49_0.3-0.4	✓						
ES2222500-051	23-Jun-2022 00:00	TPB49_0.5-0.6		✓		✓			
ES2222500-052	23-Jun-2022 00:00	TPB50_0.0-0.1		✓					✓
ES2222500-053	23-Jun-2022 00:00	TPB50_0.3-0.4		✓		✓			
ES2222500-054	23-Jun-2022 00:00	TPB50_0.5-0.6	✓						
ES2222500-055	23-Jun-2022 00:00	BHB51_0.0-0.1		✓		✓			
ES2222500-056	23-Jun-2022 00:00	BHB51_0.3-0.4		✓		✓			
ES2222500-057	23-Jun-2022 00:00	BHB51_0.5-0.6	✓						
ES2222500-058	23-Jun-2022 00:00	BHB52_0.0-0.1		✓				✓	
ES2222500-059	23-Jun-2022 00:00	BHB52_0.3-0.4		✓		✓			
ES2222500-060	23-Jun-2022 00:00	BHB52_0.5-0.6	✓						
ES2222500-061	23-Jun-2022 00:00	TPC01_0.0-0.1		✓				✓	
ES2222500-062	23-Jun-2022 00:00	TPC01_0.3.0.4		✓		✓			
ES2222500-063	23-Jun-2022 00:00	TPC02_0_0.0.1		✓					✓
ES2222500-064	23-Jun-2022 00:00	TPC02_0.3-0.4		✓		✓			

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP080 BTEXN	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222500-065	23-Jun-2022 00:00	TPC03_0.0-0.1		✓		✓			
ES2222500-066	23-Jun-2022 00:00	TPC03_0.3-0.4	✓						
ES2222500-067	23-Jun-2022 00:00	TPC04_0.0.0.1		✓				✓	
ES2222500-068	23-Jun-2022 00:00	TPC04_0.3.0.4		✓		✓			
ES2222500-069	23-Jun-2022 00:00	TPC04_0.9-1 .0	✓						
ES2222500-070	23-Jun-2022 00:00	TPC05_0.0--0.1		✓					✓
ES2222500-071	23-Jun-2022 00:00	TPC05_0.3-0 .4		✓		✓			
ES2222500-072	23-Jun-2022 00:00	TPC06_0.0·0.1		✓				✓	
ES2222500-073	23-Jun-2022 00:00	TPC06_0.3-0 .4	✓						
ES2222500-074	23-Jun-2022 00:00	TPC06_0.4-0.5		✓		✓			
ES2222500-075	23-Jun-2022 00:00	TPC07_0.0-0.1		✓		✓			
ES2222500-076	23-Jun-2022 00:00	TPC07_0.3-0 .4	✓						
ES2222500-077	23-Jun-2022 00:00	TPC08_0.0-0.1		✓					✓
ES2222500-078	23-Jun-2022 00:00	TPC08_0.3-0.4		✓		✓			
ES2222500-079	23-Jun-2022 00:00	TPC08_0.5-0 .6	✓						
ES2222500-080	23-Jun-2022 00:00	TPC09_0.0.0.1		✓				✓	
ES2222500-081	23-Jun-2022 00:00	TPC09_0.3-0.4		✓		✓			
ES2222500-082	23-Jun-2022 00:00	TPC10_0.0-0.1		✓		✓			
ES2222500-083	23-Jun-2022 00:00	TPC10_0.3.0.4	✓						
ES2222500-084	23-Jun-2022 00:00	TPC11_0.0.0.1		✓					✓
ES2222500-085	23-Jun-2022 00:00	TPC11_0.3.0.4		✓		✓			
ES2222500-086	23-Jun-2022 00:00	TPC11_0.9-1.0	✓						
ES2222500-087	23-Jun-2022 00:00	TPC12_0.0.0.1		✓		✓			
ES2222500-088	23-Jun-2022 00:00	TPC12_0.3.0.4	✓						
ES2222500-089	23-Jun-2022 00:00	TPC13_0.0.0.1		✓				✓	
ES2222500-091	23-Jun-2022 00:00	TPC13_0.6-0.7		✓		✓			
ES2222500-092	23-Jun-2022 00:00	TPC14_0.0-0.1		✓		✓			
ES2222500-093	23-Jun-2022 00:00	TPC14_0.3-0.4	✓						
ES2222500-094	23-Jun-2022 00:00	TPC15_0.0-0.1		✓				✓	
ES2222500-095	23-Jun-2022 00:00	TPC15_0.3-0.4		✓		✓			
ES2222500-096	23-Jun-2022 00:00	BHD01_0.0-0.1		✓				✓	
ES2222500-097	23-Jun-2022 00:00	8HD01_0.3-0.4		✓					✓
ES2222500-098	23-Jun-2022 00:00	BHD01_0.7-0.8	✓						
ES2222500-099	23-Jun-2022 00:00	BHD02_0.0-0.1		✓				✓	
ES2222500-100	23-Jun-2022 00:00	BHD02_0.3-0.4		✓					✓
ES2222500-101	23-Jun-2022 00:00	BHD03_0.0-0.1		✓				✓	
ES2222500-102	23-Jun-2022 00:00	BHD03_0.3-0.4		✓					✓
ES2222500-103	23-Jun-2022 00:00	BHD04_0.0-0.1		✓				✓	
ES2222500-104	23-Jun-2022 00:00	BHD04_0.3-0.4		✓					✓
ES2222500-105	23-Jun-2022 00:00	QS01		✓					✓
ES2222500-106	23-Jun-2022 00:00	QS03		✓		✓			

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP080 BTEXN	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-26 8 metals/TRH/BTEXN/PAH
ES2222500-107	23-Jun-2022 00:00	QS05		✓				✓	
ES2222500-108	23-Jun-2022 00:00	QS07		✓					✓
ES2222500-109	23-Jun-2022 00:00	QS09		✓		✓			
ES2222500-110	23-Jun-2022 00:00	QS11		✓		✓			
ES2222500-111	23-Jun-2022 00:00	QS13		✓		✓			
ES2222500-112	23-Jun-2022 00:00	QS15	✓						
ES2222500-113	23-Jun-2022 00:00	QS16	✓						
ES2222500-114	23-Jun-2022 00:00	QS17		✓				✓	
ES2222500-115	23-Jun-2022 00:00	QS19		✓				✓	
ES2222500-116	16-Jun-2022 00:00	Trip Blank					✓		
ES2222500-117	16-Jun-2022 00:00	Trip Spike			✓				
ES2222500-119	23-Jun-2022 00:00	TPB45_0.3-0.4 Recei...	✓						
ES2222500-120	23-Jun-2022 00:00	TPB35_1.2-1.3 Recei...	✓						
ES2222500-121	20-Jun-2022 00:00	T1d Received as ext...	✓						
ES2222500-122	20-Jun-2022 00:00	T2b Received as ext...	✓						
ES2222500-123	21-Jun-2022 00:00	T3b Received as ext...	✓						
ES2222500-124	22-Jun-2022 00:00	T4a Received as ext...	✓						
ES2222500-125	23-Jun-2022 00:00	T5c Received as ext...	✓						
ES2222500-126	23-Jun-2022 00:00	TSC			✓				

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - W-26 TRH/BTEXN/PAH/8 Metals
ES2222500-118	23-Jun-2022 00:00	RB1	✓

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	inbox@cavvanba.com

DREW WOOD

- *AU Certificate of Analysis - NATA (COA)	Email	drew@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	drew@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	drew@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	drew@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	drew@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	drew@cavvanba.com

ROB MCLELLAND

- A4 - AU Tax Invoice (INV)	Email	rob@cavvanba.com

ZAC LAUGHLAN

- *AU Certificate of Analysis - NATA (COA)	Email	zac@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	zac@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	zac@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	zac@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	zac@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	zac@cavvanba.com

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	✱ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 11	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME:	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		24.6.22	
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			

RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24/6/24	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-25: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN	250	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	TPB29_0.0-0.1	22.6.22	Soil					X			
2	TPB29_0.3-0.4	22.6.22	Soil					X			
3	TPB30_0.0-0.1	22.6.22	Soil				X				
4	TPB30_0.3-0.4	22.6.22	Soil					X			
5	TPB30_0.5-0.6	22.6.22	Soil								
6	TPB31_0.0-0.1	22.6.22	Soil					X			
7	TPB31_0.3-0.4	22.6.22	Soil					X			
8	TPB31_0.4-0.5	22.6.22	Soil								
9	TPB32_0.0-0.1	22.6.22	Soil					X			
10	TPB32_0.3-0.4	22.6.22	Soil					X			
11	TPB32_1.1-1.2	22.6.22	Soil								
12	TPB33_0.0-0.1	22.6.22	Soil			X					
13	TPB33_0.3-0.4	22.6.22	Soil					X			
14	TPB34_0.0-0.1	22.6.22	Soil					X			
15	TPB34_0.3-0.4	22.6.22	Soil					X			
16	TPB35_0.0-0.1	22.6.22	Soil				X				
17	TPB35_0.3-0.4	22.6.22	Soil					X			
18	TPB36_0.0-0.1	22.6.22	Soil					X			
19	TPB36_0.3-0.4	22.6.22	Soil				X				
20	TPB37_0.0-0.1	22.6.22	Soil					X			
				TOTAL		1	3	14			

Environmental Division Sydney
Work Order Reference
ES2222500

Telephone : + 61-2-8784 8555

LAB OF ORIGIN: NEWCASTLE

SUBCON FORWARD SPLIT - ES2222396

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 (7) 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 (11)	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 24.6.22	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		DATE/TIME:	DATE/TIME:
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:		RELINQUISHED BY: 24/6/22 DATE/TIME:	RECEIVED BY: DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
21	TPB37_0.3-0.4	22.6.22	Soil					X									
22	TPB37_0.5-0.6	22.6.22	Soil														
23	TPB38_0.0-0.1	22.6.22	Soil			X											
24	TPB38_0.3-0.4	22.6.22	Soil														
25	TPB38_0.5-0.6	22.6.22	Soil				X										
26	TPB39_0.0-0.1	22.6.22	Soil					X									
27	TPB39_0.3-0.4	22.6.22	Soil														
28	TPB40_0.0-0.1	22.6.22	Soil					X									
29	TPB40_0.3-0.4	22.6.22	Soil					X									
30	TPB41_0.0-0.1	22.6.22	Soil			X											
31	TPB41_0.3-0.4	22.6.22	Soil					X									
32	TPB42_0.0-0.1	22.6.22	Soil					X									
33	TPB42_0.3-0.4	22.6.22	Soil					X									
34	TPB43_0.0-0.1	22.6.22	Soil			X											
35	TPB43_0.3-0.4	22.6.22	Soil					X									
36	TPB44_0.0-0.1	22.6.22	Soil					X									
37	TPB44_0.3-0.4	22.6.22	Soil														
38	TPB44_0.6-0.7	22.6.22	Soil					X									
39	TPB45_0.0-0.1	23.6.22	Soil			X											
				TOTAL		4	1	10									

LAB OF ORIGIN: NEWCASTLE

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 →

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OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	DF: 1 2 3 4 5 6 7 8 9 10	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0426 268 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 24.6.22	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed)	drew@cavvanba.com, zac@cavvanba.com	RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed)	rob@cavvanba.com	DATE/TIME:	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/NPAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEX/NPAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN									Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
40	TPB46_0.0-0.1	23.6.22	Soil					X										
41	TPB46_0.3-0.4	23.6.22	Soil					X										
42	TPB46_0.5-0.6	23.6.22	Soil															
43	TPB47_0.0-0.1	23.6.22	Soil					X										
44	TPB47_0.3-0.4	23.6.22	Soil				X											
45	TPB48_0.0-0.1	23.6.22	Soil			X												
46	TPB48_0.1-0.11	23.6.22	Soil				X											
47	TPB48_0.3-0.4	23.6.22	Soil															
48	TPB48_0.5-0.6	23.6.22	Soil															
49	TPB49_0.0-0.1	23.6.22	Soil					X										
50	TPB49_0.3-0.4	23.6.22	Soil															
51	TPB49_0.5-0.6	23.6.22	Soil					X										
52	TPB50_0.0-0.1	23.6.22	Soil				X											
53	TPB50_0.3-0.4	23.6.22	Soil					X										
54	TPB50_0.5-0.6	23.6.22	Soil															
55	BHB51_0.0-0.1	23.6.22	Soil					X										
56	BHB51_0.3-0.4	23.6.22	Soil					X										
57	BHB51_0.5-0.6	23.6.22	Soil															
58	BHB52_0.0-0.1	23.6.22	Soil			X												
59	BHB52_0.3-0.4	23.6.22	Soil					X										
60	BHB52_0.5-0.6	23.6.22	Soil															
				TOTAL		2	3	9										

LAB OF ORIGIN: NEWCASTLE

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	✱ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non-Standard or urgent TAT (List due date):	Custody Seal Intact? Yes / No / N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes / No / N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10 11	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 24.6.22	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		DATE/TIME:	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
61	TPC01_0.0-0.1	22.6.22	Soil			X											
62	TPC01_0.3-0.4	22.6.22	Soil					X									
63	TPC02_0.0-0.1	22.6.22	Soil				X										
64	TPC02_0.3-0.4	22.6.22	Soil					X									
65	TPC03_0.0-0.1	22.6.22	Soil					X									
66	TPC03_0.3-0.4	22.6.22	Soil														
67	TPC04_0.0-0.1	22.6.22	Soil			X											LAB OF ORIGIN:
68	TPC04_0.3-0.4	22.6.22	Soil					X									NEWCASTLE
69	TPC04_0.9-1.0	22.6.22	Soil														
70	TPC05_0.0-0.1	22.6.22	Soil				X										
71	TPC05_0.3-0.4	22.6.22	Soil					X									
72	TPC06_0.0-0.1	23.6.22	Soil			X											
73	TPC06_0.3-0.4	23.6.22	Soil														
74	TPC06_0.4-0.5	23.6.22	Soil					X									
75	TPC07_0.0-0.1	23.6.22	Soil					X									
76	TPC07_0.3-0.4	23.6.22	Soil														
77	TPC08_0.0-0.1	23.6.22	Soil				X										
78	TPC08_0.3-0.4	23.6.22	Soil					X									
79	TPC08_0.5-0.6	23.6.22	Soil														
80	TPC09_0.0-0.1	23.6.22	Soil			X											
81	TPC09_0.3-0.4	23.6.22	Soil					X									
				TOTAL		4	3										

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 →

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OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 4 5 6 7 8 9 10	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0429 288 854		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):		
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com			
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24.6.22	DATE/TIME:	DATE/TIME:	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/NPAHs/Phenols/OC/OP/PCB/8 Metals	S-25: TRH/BTEX/NPAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN									Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
82	TPC10_0.0-0.1	23.6.22	Soil					X										
83	TPC10_0.3-0.4	23.6.22	Soil															
84	TPC11_0.0-0.1	23.6.22	Soil				X											
85	TPC11_0.3-0.4	23.6.22	Soil					X										
86	TPC11_0.9-1.0	23.6.22	Soil															
87	TPC12_0.0-0.1	23.6.22	Soil					X										
88	TPC12_0.3-0.4	23.6.22	Soil															
89	TPC13_0.0-0.1	23.6.22	Soil			X												
90	TPC13_0.3-0.4	23.6.22	Soil					X										
91	TPC13_0.6-0.7	23.6.22	Soil															
92	TPC14_0.0-0.1	23.6.22	Soil					X										
93	TPC14_0.3-0.4	23.6.22	Soil															
94	TPC15_0.0-0.1	23.6.22	Soil			X												
95	TPC15_0.3-0.4	23.6.22	Soil					X										
96	BHD01_0.0-0.1	23.6.22	Soil			X												
97	BHD01_0.3-0.4	23.6.22	Soil				X											
98	BHD01_0.7-0.8	23.6.22	Soil															
99	BHD02_0.0-0.1	23.6.22	Soil			X												
100	BHD02_0.3-0.4	23.6.22	Soil				X											
101	BHD03_0.0-0.1	23.6.22	Soil			X												
102	BHD03_0.3-0.4	23.6.22	Soil				X											
103	BHD04_0.0-0.1	23.6.22	Soil			X												
~~20~~ 104	BHD04_0.3-0.4	23.6.22	Soil				X											
				TOTAL														

LAB OF ORIGIN: NEWCASTLE

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE: Newcastle		
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	
ORDER NUMBER: 21075		
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 589 755	
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 268 854	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7 8 9 10 11

OF: 1 2 3 4 5 6 7 8 9 10 11

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24.6.22	DATE/TIME:	DATE/TIME	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN	W-26: TRH/BTEXN/PAHs/metals (8)		Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc
105	QS01	21.6.22	Soil				X					
X	QS02	21.6.22	Soil			S-26: TRH/BTEXN/PAHs/8 Metals Please forward to Eurofins						
106	QS03	21.6.22	Soil					X				
X	QS04	21.6.22	Soil			S-02: Metals (8) Please forward to Eurofins						
107	QS05	21.6.22	Soil			X						
X	QS06	21.6.22	Soil			S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals Please forward to Eurofins						
108	QS07	21.6.22	Soil				X					
X	QS08	21.6.22	Soil			S-26: TRH/BTEXN/PAHs/8 Metals Please forward to Eurofins						
109	QS09	22.6.22	Soil					X				
X	QS10	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins						
110	QS11	22.6.22	Soil					X				
X	QS12	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins						
111	QS13	22.6.22	Soil					X				
X	QS14	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins						
112	QS15	23.6.22	Soil			On hold						
113	QS16	23.6.22	Soil									
114	QS17	23.6.22	Soil			X						
X	QS18	23.6.22	Soil			S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals Please forward to Eurofins						
115	QS19	23.6.22	Soil			X						
X	QS20	23.6.22	Soil			S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals Please forward to Eurofins						
116	Trip blank	16/6	Soil						X			
117	Trip spike	16/6	Soil						X			
118	RB1	23.6.22	Water							X		

LAB OF ORIGIN: NEWCASTLE

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

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2225290**	Page	: 1 of 5
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022 18:39
Order number	: 21075	Date Analysis Commenced	: 20-Jul-2022
C-O-C number	: ----	Issue Date	: 25-Jul-2022 18:37
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 9		
No. of samples analysed	: 9		

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

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
Ivan Taylor	Analyst	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.

- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.

Analytical Results

Sub-Matrix: **DI WATER LEACHATE** (Matrix: **WATER**)				Sample ID	TPB48_0.1-0.11	TPB41_0.0-0.1	TPB18_0.3-0.4	TPB06_0.0-0.1	TPA06_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	*CAS Number*	*LOR*	*Unit*		**ES2225290-001**	**ES2225290-002**	**ES2225290-003**	**ES2225290-004**	**ES2225290-005**
					Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS									
Lead	7439-92-1	0.001	mg/L		**21.8**	**2.27**	**3.22**	**4.00**	**0.159**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)			Sample ID	TPB48_0.1-0.11	TPB41_0.0-0.1	TPB18_0.3-0.4	TPB06_0.0-0.1	TPA06_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	*CAS Number*	*LOR*	*Unit*	**ES2225290-001**	**ES2225290-002**	**ES2225290-003**	**ES2225290-004**	**ES2225290-005**
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**3.8**	**5.7**	**5.4**	**4.0**	**6.1**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB25_0.5-0.6	TPB46_0.5-0.6	TPB48_0.3-0.4	TPB48_0.5-0.6	----
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2225290-006	ES2225290-007	ES2225290-008	ES2225290-009	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**21.3**	**18.0**	**22.8**	**17.0**	**----**
EG005(ED093)T: Total Metals by ICP-AES								
Lead	7439-92-1	5	mg/kg	**17**	**124**	**2480**	**35**	**----**

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2225290**	Page	: 1 of 3
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Order number	: 21075	Date Analysis Commenced	: 20-Jul-2022
C-O-C number	: ----	Issue Date	: 25-Jul-2022
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 9		
No. of samples analysed	: 9		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	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.

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4472137)									
ES2225246-021	Anonymous	EG005T: Lead	7439-92-1	5	mg/kg	20	20	0.0	No Limit
ES2225246-031	Anonymous	EG005T: Lead	7439-92-1	5	mg/kg	13	16	21.9	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4472142)									
ES2225246-023	Anonymous	EA055: Moisture Content	----	0.1	%	17.3	18.2	5.4	0% - 50%
ES2225246-034	Anonymous	EA055: Moisture Content	----	0.1	%	21.7	22.4	3.3	0% - 20%

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 (%)*
EG020W: Water Leachable Metals by ICP-MS (QC Lot: 4475290)									
ES2225290-001	TPB48_0.1-0.11	EG020A-W: Lead	7439-92-1	0.001	mg/L	21.8	21.9	0.1	0% - 20%

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4472137)								
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	105	82.0	119

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020W: Water Leachable Metals by ICP-MS (QCLot: 4475290)								
EG020A-W: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	95.4	83.0	115

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4472137)							
ES2225246-021	Anonymous	EG005T: Lead	7439-92-1	250 mg/kg	97.2	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020W: Water Leachable Metals by ICP-MS (QCLot: 4475290)							
ES2225290-003	TPB18_0.3-0.4	EG020A-W: Lead	7439-92-1	1 mg/L	76.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2225290**	Page	: 1 of 4
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Site	: ----	Issue Date	: 25-Jul-2022
Sampler	: ZAC LAUGHLAN	No. of samples received	: 9
Order number	: 21075	No. of samples analysed	: 9

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

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

Outliers : Frequency of Quality Control Samples

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

Outliers : Analysis Holding Time Compliance

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
EA055: Moisture Content (Dried @ 105-110°C)						
Soil Glass Jar - Unpreserved						
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	----	----	----	21-Jul-2022	07-Jul-2022	**14**

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	**23-Jun-2022**	**----**	----	----	**21-Jul-2022**	07-Jul-2022	×
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	**23-Jun-2022**	**22-Jul-2022**	20-Dec-2022	✓	**25-Jul-2022**	20-Dec-2022	✓
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-Dla-P)							
TPB48_0.1-0.11, TPB41_0.0-0.1, TPB18_0.3-0.4, TPB06_0.0-0.1, TPA06_0.0-0.1	**21-Jun-2022**	**20-Jul-2022**	18-Dec-2022	✓	**----**	----	----

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
EG020W: Water Leachable Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-W)							
TPB48_0.1-0.11, TPB41_0.0-0.1, TPB18_0.3-0.4, TPB06_0.0-0.1, TPA06_0.0-0.1	**20-Jul-2022**	**22-Jul-2022**	16-Jan-2023	✓	**22-Jul-2022**	16-Jan-2023	✓

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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**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
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).
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)
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, AS 4439.3, 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.

Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals in DI Water Leachate	EN25W	SOIL	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)
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
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).

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2225290**

Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: drew@cavvanba.com	E-mail	: helen.simpson@alsglobal.com
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Facsimile	: +61 02 6685 5083	Facsimile	: +61-2-8784 8500
Project	: 21075	Page	: 1 of 3
Order number	: 21075	Quote number	: ES2021CAVCON0010 (SY/412/21)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: ZAC LAUGHLAN		

Dates

Date Samples Received	: 24-Jun-2022 18:39	Issue Date	: 19-Jul-2022
Client Requested Due Date	: 25-Jul-2022	Scheduled Reporting Date	: **25-Jul-2022**

Delivery Details

Mode of Delivery	: Samples On Hand	Security Seal	: Intact.
No. of coolers/boxes	: 22	Temperature	: 2.8' C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 9 / 9

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 A REBATCH OF ES2222396 AND ES2222500**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please 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.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EG005T (solids) Total Metals by ICP-AES	SOIL - EG020A-W Water Leachable Metals by ICP-MS - Suite A	SOIL - EN60-DIa-P Deionised Water Leach - Plastic Leaching Vessel
ES2225290-001	21-Jun-2022 00:00	TPB48_0.1-0.11			✓	✓
ES2225290-002	21-Jun-2022 00:00	TPB41_0.0-0.1			✓	✓
ES2225290-003	21-Jun-2022 00:00	TPB18_0.3-0.4			✓	✓
ES2225290-004	21-Jun-2022 00:00	TPB06_0.0-0.1			✓	✓
ES2225290-005	21-Jun-2022 00:00	TPA06_0.0-0.1			✓	✓
ES2225290-006	23-Jun-2022 00:00	TPB25_0.5-0.6	✓	✓		
ES2225290-007	23-Jun-2022 00:00	TPB46_0.5-0.6	✓	✓		
ES2225290-008	23-Jun-2022 00:00	TPB48_0.3-0.4	✓	✓		
ES2225290-009	23-Jun-2022 00:00	TPB48_0.5-0.6	✓	✓		

Proactive Holding Time Report

The following table summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory.

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

Method / Client Sample ID(s)	Container	Due for extraction	Due for analysis	Samples Received		Instructions Received	
				Date	Evaluation	Date	Evaluation
EA055: Moisture Content							
TPB25_0.5-0.6	Soil Glass Jar - Unpreserved	----	07-Jul-2022	24-Jun-2022	✓	18-Jul-2022	×
TPB46_0.5-0.6	Soil Glass Jar - Unpreserved	----	07-Jul-2022	24-Jun-2022	✓	18-Jul-2022	×
TPB48_0.3-0.4	Soil Glass Jar - Unpreserved	----	07-Jul-2022	24-Jun-2022	✓	18-Jul-2022	×
TPB48_0.5-0.6	Soil Glass Jar - Unpreserved	----	07-Jul-2022	24-Jun-2022	✓	18-Jul-2022	×

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	inbox@cavvanba.com
DREW WOOD		
- *AU Certificate of Analysis - NATA (COA)	Email	drew@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	drew@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	drew@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	drew@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	drew@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	drew@cavvanba.com
ROB MCLELLAND		
- A4 - AU Tax Invoice (INV)	Email	rob@cavvanba.com
ZAC LAUGHLAN		
- *AU Certificate of Analysis - NATA (COA)	Email	zac@cavvanba.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	zac@cavvanba.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	zac@cavvanba.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	zac@cavvanba.com
- Chain of Custody (CoC) (COC)	Email	zac@cavvanba.com
- EDI Format - ENMRG (ENMRG)	Email	zac@cavvanba.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2225290**	Page	: 1 of 5
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022 18:39
Order number	: 21075	Date Analysis Commenced	: 20-Jul-2022
C-O-C number	: ----	Issue Date	: 25-Jul-2022 18:37
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 9		
No. of samples analysed	: 9		

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

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
Ivan Taylor	Analyst	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.

- EN60-DI: Where leachable PFAS analysis is requested, centrifugation rather than pressure filtration is used as the default approach for removal of particulates, in line with AS 4439.3.

Analytical Results

Sub-Matrix: **DI WATER LEACHATE** (Matrix: **WATER**)				Sample ID	TPB48_0.1-0.11	TPB41_0.0-0.1	TPB18_0.3-0.4	TPB06_0.0-0.1	TPA06_0.0-0.1
				Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	*CAS Number*	*LOR*	*Unit*		**ES2225290-001**	**ES2225290-002**	**ES2225290-003**	**ES2225290-004**	**ES2225290-005**
					Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS									
Lead	7439-92-1	0.001	mg/L		**21.8**	**2.27**	**3.22**	**4.00**	**0.159**

Analytical Results

Sub-Matrix: **SOIL** (Matrix: **SOIL**)			Sample ID	TPB48_0.1-0.11	TPB41_0.0-0.1	TPB18_0.3-0.4	TPB06_0.0-0.1	TPA06_0.0-0.1
			Sampling date / time	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00	21-Jun-2022 00:00
Compound	*CAS Number*	*LOR*	*Unit*	**ES2225290-001**	**ES2225290-002**	**ES2225290-003**	**ES2225290-004**	**ES2225290-005**
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)								
Final pH	----	0.1	pH Unit	**3.8**	**5.7**	**5.4**	**4.0**	**6.1**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	TPB25_0.5-0.6	TPB46_0.5-0.6	TPB48_0.3-0.4	TPB48_0.5-0.6	----
			Sampling date / time	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	23-Jun-2022 00:00	----
Compound	CAS Number	LOR	Unit	ES2225290-006	ES2225290-007	ES2225290-008	ES2225290-009	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**21.3**	**18.0**	**22.8**	**17.0**	**----**
EG005(ED093)T: Total Metals by ICP-AES								
Lead	7439-92-1	5	mg/kg	**17**	**124**	**2480**	**35**	**----**

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2225290**	Page	: 1 of 3
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Contact	: Helen Simpson
Address	: PO Box 322 NEWCASTLE 2300	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6685 7811	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Order number	: 21075	Date Analysis Commenced	: 20-Jul-2022
C-O-C number	: ----	Issue Date	: 25-Jul-2022
Sampler	: ZAC LAUGHLAN		
Site	: ----		
Quote number	: SY/412/21		
No. of samples received	: 9		
No. of samples analysed	: 9		

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

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

This Quality Control Report contains the following information:

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	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.

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

Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 4472137)									
ES2225246-021	Anonymous	EG005T: Lead	7439-92-1	5	mg/kg	20	20	0.0	No Limit
ES2225246-031	Anonymous	EG005T: Lead	7439-92-1	5	mg/kg	13	16	21.9	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4472142)									
ES2225246-023	Anonymous	EA055: Moisture Content	----	0.1	%	17.3	18.2	5.4	0% - 50%
ES2225246-034	Anonymous	EA055: Moisture Content	----	0.1	%	21.7	22.4	3.3	0% - 20%

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 (%)*
EG020W: Water Leachable Metals by ICP-MS (QC Lot: 4475290)									
ES2225290-001	TPB48_0.1-0.11	EG020A-W: Lead	7439-92-1	0.001	mg/L	21.8	21.9	0.1	0% - 20%

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

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

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4472137)								
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	105	82.0	119

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020W: Water Leachable Metals by ICP-MS (QCLot: 4475290)								
EG020A-W: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	95.4	83.0	115

Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 4472137)							
ES2225246-021	Anonymous	EG005T: Lead	7439-92-1	250 mg/kg	97.2	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020W: Water Leachable Metals by ICP-MS (QCLot: 4475290)							
ES2225290-003	TPB18_0.3-0.4	EG020A-W: Lead	7439-92-1	1 mg/L	76.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2225290**	Page	: 1 of 4
Client	: **CAVVANBA CONSULTING**	Laboratory	: Environmental Division Sydney
Contact	: MR DREW WOOD	Telephone	: +61 2 8784 8555
Project	: 21075	Date Samples Received	: 24-Jun-2022
Site	: ----	Issue Date	: 25-Jul-2022
Sampler	: ZAC LAUGHLAN	No. of samples received	: 9
Order number	: 21075	No. of samples analysed	: 9

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

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

Outliers : Frequency of Quality Control Samples

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

Outliers : Analysis Holding Time Compliance

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
EA055: Moisture Content (Dried @ 105-110°C)						
Soil Glass Jar - Unpreserved						
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	----	----	----	21-Jul-2022	07-Jul-2022	**14**

Analysis Holding Time Compliance

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

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

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

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

Matrix: **SOIL**

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

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	**23-Jun-2022**	**----**	----	----	**21-Jul-2022**	07-Jul-2022	×
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
TPB25_0.5-0.6, TPB46_0.5-0.6, TPB48_0.3-0.4, TPB48_0.5-0.6	**23-Jun-2022**	**22-Jul-2022**	20-Dec-2022	✓	**25-Jul-2022**	20-Dec-2022	✓
EN60-DI: Bottle Leaching Procedure - Inorganics/PFAS (Plastic Vessel)							
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN60-Dla-P)							
TPB48_0.1-0.11, TPB41_0.0-0.1, TPB18_0.3-0.4, TPB06_0.0-0.1, TPA06_0.0-0.1	**21-Jun-2022**	**20-Jul-2022**	18-Dec-2022	✓	**----**	----	----

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
EG020W: Water Leachable Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-W)							
TPB48_0.1-0.11, TPB41_0.0-0.1, TPB18_0.3-0.4, TPB06_0.0-0.1, TPA06_0.0-0.1	**20-Jul-2022**	**22-Jul-2022**	16-Jan-2023	✓	**22-Jul-2022**	16-Jan-2023	✓

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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Total Metals by ICP-AES	EG005T	1	18	**5.56**	**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		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	1	5	**20.00**	**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
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).
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)
Water Leachable Metals by ICP-MS - Suite A	EG020A-W	SOIL	In house: Referenced to APHA 3125; USEPA SW846 - 6020, AS 4439.3, 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.

Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals in DI Water Leachate	EN25W	SOIL	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)
Deionised Water Leach - Plastic Leaching Vessel	EN60-DIa-P	SOIL	In house QWI-EN/60 referenced to AS4439.3 Preparation of Leachates
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).

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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: **Drew Wood**

Report **901448-S**
Project name
Project ID 21075
Received Date Jun 28, 2022

Client Sample ID			**QS02**	**QS04**	**QS06**	**QS08**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0063525**	**S22-Jn0063526**	**S22-Jn0063527**	**S22-Jn0063528**
Date Sampled			**Jun 21, 2022**	**Jun 21, 2022**	**Jun 21, 2022**	**Jun 21, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	100	-	< 50	250
TRH C29-C36	50	mg/kg	96	-	59	340
TRH C10-C36 (Total)	50	mg/kg	196	-	59	590
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	190	-	< 100	550
TRH >C34-C40	100	mg/kg	< 100	-	< 100	180
TRH >C10-C40 (total)*	100	mg/kg	190	-	< 100	730
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	74	-	62	85
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	1.4	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	1.7	-	0.6	0.7
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	2.0	-	1.2	1.3
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	1.6	-	< 0.5	0.8
Benzo(a)pyrene	0.5	mg/kg	1.0	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	1.9	-	< 0.5	0.9
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	1.6	-	< 0.5	0.7
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			QS02	QS04	QS06	QS08
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063525	S22-Jn0063526	S22-Jn0063527	S22-Jn0063528
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	3.4	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	2.0	-	< 0.5	0.5
Pyrene	0.5	mg/kg	4.0	-	< 0.5	0.5
Total PAH*	0.5	mg/kg	16	-	< 0.5	3.4
2-Fluorobiphenyl (surr.)	1	%	119	-	123	103
p-Terphenyl-d14 (surr.)	1	%	136	-	140	130
Heavy Metals						
Arsenic	2	mg/kg	110	51	36	120
Cadmium	0.4	mg/kg	1.4	1.2	3.0	2.4
Chromium	5	mg/kg	31	20	41	21
Copper	5	mg/kg	230	80	210	1100
Lead	5	mg/kg	300	190	1200	30000
Mercury	0.1	mg/kg	0.2	0.2	0.1	1.7
Nickel	5	mg/kg	26	20	27	20
Zinc	5	mg/kg	410	260	710	1600
% Moisture	1	%	17	6.1	7.2	8.0
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	-
a-HCH	0.05	mg/kg	-	-	< 0.05	-
Aldrin	0.05	mg/kg	-	-	< 0.05	-
b-HCH	0.05	mg/kg	-	-	< 0.05	-
d-HCH	0.05	mg/kg	-	-	< 0.05	-
Dieldrin	0.05	mg/kg	-	-	< 0.05	-
Endosulfan I	0.05	mg/kg	-	-	< 0.05	-
Endosulfan II	0.05	mg/kg	-	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	-
Endrin	0.05	mg/kg	-	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	-
Endrin ketone	0.05	mg/kg	-	-	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.05	-
Heptachlor	0.05	mg/kg	-	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	-
Methoxychlor	0.05	mg/kg	-	-	< 0.05	-
Toxaphene	0.5	mg/kg	-	-	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	74	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	[Q09]INT	-

Client Sample ID			QS02	QS04	QS06	QS08
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063525	S22-Jn0063526	S22-Jn0063527	S22-Jn0063528
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Bolstar	0.2	mg/kg	-	-	< 0.2	-
Chlorfenvinphos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos	0.2	mg/kg	-	-	< 0.2	-
Chlorpyrifos-methyl	0.2	mg/kg	-	-	< 0.2	-
Coumaphos	2	mg/kg	-	-	< 2	-
Demeton-S	0.2	mg/kg	-	-	< 0.2	-
Demeton-O	0.2	mg/kg	-	-	< 0.2	-
Diazinon	0.2	mg/kg	-	-	< 0.2	-
Dichlorvos	0.2	mg/kg	-	-	< 0.2	-
Dimethoate	0.2	mg/kg	-	-	< 0.2	-
Disulfoton	0.2	mg/kg	-	-	< 0.2	-
EPN	0.2	mg/kg	-	-	< 0.2	-
Ethion	0.2	mg/kg	-	-	< 0.2	-
Ethoprop	0.2	mg/kg	-	-	< 0.2	-
Ethyl parathion	0.2	mg/kg	-	-	< 0.2	-
Fenitrothion	0.2	mg/kg	-	-	< 0.2	-
Fensulfothion	0.2	mg/kg	-	-	< 0.2	-
Fenthion	0.2	mg/kg	-	-	< 0.2	-
Malathion	0.2	mg/kg	-	-	< 0.2	-
Merphos	0.2	mg/kg	-	-	< 0.2	-
Methyl parathion	0.2	mg/kg	-	-	< 0.2	-
Mevinphos	0.2	mg/kg	-	-	< 0.2	-
Monocrotophos	2	mg/kg	-	-	< 2	-
Naled	0.2	mg/kg	-	-	< 0.2	-
Omethoate	2	mg/kg	-	-	< 2	-
Phorate	0.2	mg/kg	-	-	< 0.2	-
Pirimiphos-methyl	0.2	mg/kg	-	-	< 0.2	-
Pyrazophos	0.2	mg/kg	-	-	< 0.2	-
Ronnel	0.2	mg/kg	-	-	< 0.2	-
Terbufos	0.2	mg/kg	-	-	< 0.2	-
Tetrachlorvinphos	0.2	mg/kg	-	-	< 0.2	-
Tokuthion	0.2	mg/kg	-	-	< 0.2	-
Trichloronate	0.2	mg/kg	-	-	< 0.2	-
Triphenylphosphate (surr.)	1	%	-	-	107	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	-
Total PCB*	0.1	mg/kg	-	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	-	74	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	[Q09]INT	-

Client Sample ID			QS02	QS04	QS06	QS08
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063525	S22-Jn0063526	S22-Jn0063527	S22-Jn0063528
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
2.4.5-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.4.6-Trichlorophenol	1	mg/kg	-	-	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	-
4-Chloro-3-methylphenol	1	mg/kg	-	-	< 1	-
Pentachlorophenol	1	mg/kg	-	-	< 1	-
Tetrachlorophenols - Total	10	mg/kg	-	-	< 10	-
Total Halogenated Phenol*	1	mg/kg	-	-	< 1	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	-	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	-	< 5	-
2-Nitrophenol	1	mg/kg	-	-	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	-	-	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	< 0.2	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	< 0.4	-
Total cresols*	0.5	mg/kg	-	-	< 0.5	-
4-Nitrophenol	5	mg/kg	-	-	< 5	-
Dinoseb	20	mg/kg	-	-	< 20	-
Phenol	0.5	mg/kg	-	-	< 0.5	-
Phenol-d6 (surr.)	1	%	-	-	92	-
Total Non-Halogenated Phenol*	20	mg/kg	-	-	< 20	-

Client Sample ID			QS10	QS12	QS14	QS18
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063529	S22-Jn0063530	S22-Jn0063531	S22-Jn0063532
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	120
TRH C29-C36	50	mg/kg	-	-	-	140
TRH C10-C36 (Total)	50	mg/kg	-	-	-	260
Naphthalene[N02]	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	210
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	210
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2

Client Sample ID			QS10	QS12	QS14	QS18
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063529	S22-Jn0063530	S22-Jn0063531	S22-Jn0063532
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
BTEX						
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	94
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	-	1.2
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	< 0.5
Total PAH*	0.5	mg/kg	-	-	-	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	-	113
p-Terphenyl-d14 (surr.)	1	%	-	-	-	104
Heavy Metals						
Arsenic	2	mg/kg	100	11	14	89
Cadmium	0.4	mg/kg	14	0.5	< 0.4	0.7
Chromium	5	mg/kg	38	44	87	20
Copper	5	mg/kg	550	44	17	240
Lead	5	mg/kg	3300	160	27	2600
Mercury	0.1	mg/kg	0.8	< 0.1	< 0.1	0.4
Nickel	5	mg/kg	66	46	47	47
Zinc	5	mg/kg	2600	130	33	250
% Moisture	1	%	22	9.1	12	14
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

Client Sample ID			QS10	QS12	QS14	QS18
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063529	S22-Jn0063530	S22-Jn0063531	S22-Jn0063532
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	97
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	117
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

Client Sample ID			QS10	QS12	QS14	QS18
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0063529	S22-Jn0063530	S22-Jn0063531	S22-Jn0063532
Date Sampled			Jun 21, 2022	Jun 21, 2022	Jun 21, 2022	Jun 21, 2022
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Tokuthion	0.2	mg/kg	-	-	-	< 0.2
Trichloronate	0.2	mg/kg	-	-	-	< 0.2
Triphenylphosphate (surr.)	1	%	-	-	-	122
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	-	< 0.1
Total PCB*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	97
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	117
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	-	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	-	-	-	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	-	-	-	< 1
2.4.6-Trichlorophenol	1	mg/kg	-	-	-	< 1
2.6-Dichlorophenol	0.5	mg/kg	-	-	-	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	-	-	-	< 1
Pentachlorophenol	1	mg/kg	-	-	-	< 1
Tetrachlorophenols - Total	10	mg/kg	-	-	-	< 10
Total Halogenated Phenol*	1	mg/kg	-	-	-	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	-	-	-	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	-	-	-	< 5
2-Nitrophenol	1	mg/kg	-	-	-	< 1
2.4-Dimethylphenol	0.5	mg/kg	-	-	-	< 0.5
2.4-Dinitrophenol	5	mg/kg	-	-	-	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	-	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	-	< 0.4
Total cresols*	0.5	mg/kg	-	-	-	< 0.5
4-Nitrophenol	5	mg/kg	-	-	-	< 5
Dinoseb	20	mg/kg	-	-	-	< 20
Phenol	0.5	mg/kg	-	-	-	< 0.5
Phenol-d6 (surr.)	1	%	-	-	-	76
Total Non-Halogenated Phenol*	20	mg/kg	-	-	-	< 20

Client Sample ID			QS20
Sample Matrix			Soil
Eurofins Sample No.			S22-Jn0063533
Date Sampled			Jun 21, 2022
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	99
p-Terphenyl-d14 (surr.)	1	%	136
Heavy Metals			
Arsenic	2	mg/kg	4.9
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	17
Copper	5	mg/kg	7.7

Client Sample ID			QS20
Sample Matrix			Soil
Eurofins Sample No.			S22-Jn0063533
Date Sampled			Jun 21, 2022
Test/Reference	LOR	Unit	
Heavy Metals			
Lead	5	mg/kg	17
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	47
Zinc	5	mg/kg	42
% Moisture	1	%	17
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-HCH	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-HCH	0.05	mg/kg	< 0.05
d-HCH	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.5	mg/kg	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	103
Tetrachloro-m-xylene (surr.)	1	%	104
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

Client Sample ID			QS20
Sample Matrix			Soil
Eurofins Sample No.			S22-Jn0063533
Date Sampled			Jun 21, 2022
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
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	%	106
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	103
Tetrachloro-m-xylene (surr.)	1	%	104
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
Pentachlorophenol	1	mg/kg	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10
Total Halogenated Phenol*	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Nitrophenol	1	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2

Client Sample ID			QS20
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Jn0063533**
Date Sampled			**Jun 21, 2022**
Test/Reference	LOR	Unit	
Phenols (non-Halogenated)			
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
Total cresols*	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	87
Total Non-Halogenated Phenol*	20	mg/kg	< 20

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Jun 28, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (Halogenated)	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Sydney	Jun 28, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Eurofins Suite B15			
Organochlorine Pesticides	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Jun 28, 2022	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Jun 28, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			

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Project Name:
Project ID: 21075

Order No.:
Report #: 901448
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jun 28, 2022 6:49 PM
Due: Jul 5, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Metals M8	Eurofins Suite B15	Moisture Set	Eurofins Suite B7	Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	QS02	Jun 21, 2022		Soil	S22-Jn0063525			X	X	
2	QS04	Jun 21, 2022		Soil	S22-Jn0063526	X		X		
3	QS06	Jun 21, 2022		Soil	S22-Jn0063527		X	X		X
4	QS08	Jun 21, 2022		Soil	S22-Jn0063528			X	X	
5	QS10	Jun 21, 2022		Soil	S22-Jn0063529	X		X		
6	QS12	Jun 21, 2022		Soil	S22-	X		X		

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Company Name: Cavvanba Consulting
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Byron Bay
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Project Name:
Project ID: 21075

Order No.:
Report #: 901448
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jun 28, 2022 6:49 PM
Due: Jul 5, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Metals M8	Eurofins Suite B15	Moisture Set	Eurofins Suite B7	Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
					Jn0063530					
7	QS14	Jun 21, 2022		Soil	S22-Jn0063531	X		X		
8	QS18	Jun 21, 2022		Soil	S22-Jn0063532		X	X		X
9	QS20	Jun 21, 2022		Soil	S22-Jn0063533		X	X		X
Test Counts						4	3	9	2	3

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	70			70-130	Pass	
TRH C10-C14	%	85			70-130	Pass	
Naphthalene	%	76			70-130	Pass	
TRH C6-C10	%	76			70-130	Pass	
TRH >C10-C16	%	88			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	79			70-130	Pass	
Toluene	%	77			70-130	Pass	
Ethylbenzene	%	74			70-130	Pass	
m&p-Xylenes	%	74			70-130	Pass	
o-Xylene	%	74			70-130	Pass	
Xylenes - Total*	%	74			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	119			70-130	Pass	
Acenaphthylene	%	79			70-130	Pass	
Anthracene	%	101			70-130	Pass	
Benz(a)anthracene	%	100			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	%	81			70-130	Pass	
Benzo(g.h.i)perylene	%	120			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	107			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	93			70-130	Pass	
Fluorene	%	123			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	98			70-130	Pass	
Naphthalene	%	89			70-130	Pass	
Phenanthrene	%	114			70-130	Pass	
Pyrene	%	102			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	102			80-120	Pass	
Cadmium	%	101			80-120	Pass	
Chromium	%	104			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	99			80-120	Pass	
Mercury	%	99			80-120	Pass	
Nickel	%	101			80-120	Pass	
Zinc	%	102			80-120	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	86			70-130	Pass	
4.4'-DDD	%	123			70-130	Pass	
4.4'-DDE	%	103			70-130	Pass	
4.4'-DDT	%	81			70-130	Pass	
a-HCH	%	125			70-130	Pass	
Aldrin	%	99			70-130	Pass	
b-HCH	%	103			70-130	Pass	
d-HCH	%	120			70-130	Pass	
Dieldrin	%	120			70-130	Pass	
Endosulfan I	%	113			70-130	Pass	
Endosulfan II	%	116			70-130	Pass	
Endosulfan sulphate	%	81			70-130	Pass	
Endrin	%	82			70-130	Pass	
Endrin aldehyde	%	113			70-130	Pass	
Endrin ketone	%	71			70-130	Pass	
g-HCH (Lindane)	%	128			70-130	Pass	
Heptachlor	%	128			70-130	Pass	
Heptachlor epoxide	%	89			70-130	Pass	
Hexachlorobenzene	%	89			70-130	Pass	
Methoxychlor	%	75			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	110			70-130	Pass	
Dimethoate	%	125			70-130	Pass	
Ethion	%	125			70-130	Pass	
Fenitrothion	%	90			70-130	Pass	
Methyl parathion	%	119			70-130	Pass	
Mevinphos	%	125			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	89			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	%	73			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	76			25-140	Pass	
2.4-Dichlorophenol	%	88			25-140	Pass	
2.4.5-Trichlorophenol	%	73			25-140	Pass	
2.4.6-Trichlorophenol	%	97			25-140	Pass	
2.6-Dichlorophenol	%	80			25-140	Pass	
4-Chloro-3-methylphenol	%	95			25-140	Pass	
Tetrachlorophenols - Total	%	79			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Methyl-4.6-dinitrophenol	%	79			25-140	Pass	
2-Nitrophenol	%	75			25-140	Pass	
2.4-Dimethylphenol	%	80			25-140	Pass	
2.4-Dinitrophenol	%	98			25-140	Pass	
2-Methylphenol (o-Cresol)	%	88			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	73			25-140	Pass	
4-Nitrophenol	%	97			25-140	Pass	
Dinoseb	%	87			25-140	Pass	
Phenol	%	83			25-140	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jn0061636	NCP	%	73			70-130	Pass	
TRH C10-C14	S22-Jn0061636	NCP	%	88			70-130	Pass	
Naphthalene	N22-Jn0051821	NCP	%	78			70-130	Pass	
TRH C6-C10	S22-Jn0061636	NCP	%	71			70-130	Pass	
TRH >C10-C16	S22-Jn0061636	NCP	%	90			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jn0061636	NCP	%	77			70-130	Pass	
Toluene	S22-Jn0061636	NCP	%	76			70-130	Pass	
Ethylbenzene	S22-Jn0061636	NCP	%	76			70-130	Pass	
m&p-Xylenes	S22-Jn0061636	NCP	%	77			70-130	Pass	
o-Xylene	S22-Jn0061636	NCP	%	73			70-130	Pass	
Xylenes - Total*	S22-Jn0061636	NCP	%	75			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Jn0067041	NCP	%	102			75-125	Pass	
Cadmium	S22-Jn0067041	NCP	%	100			75-125	Pass	
Chromium	S22-Jn0067041	NCP	%	112			75-125	Pass	
Copper	S22-Jn0067041	NCP	%	103			75-125	Pass	
Lead	S22-Jn0067041	NCP	%	108			75-125	Pass	
Mercury	S22-Jn0067041	NCP	%	110			75-125	Pass	
Nickel	S22-Jn0065683	NCP	%	104			75-125	Pass	
Zinc	S22-Jn0067041	NCP	%	82			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Jn0051006	NCP	%	103			70-130	Pass	
4.4'-DDD	S22-Jn0050997	NCP	%	120			70-130	Pass	
4.4'-DDE	S22-Jn0051006	NCP	%	109			70-130	Pass	
a-HCH	S22-Jn0051006	NCP	%	103			70-130	Pass	
Aldrin	S22-Jn0051006	NCP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-HCH	S22-Jn0051006	NCP	%	111			70-130	Pass	
d-HCH	S22-Jn0051006	NCP	%	104			70-130	Pass	
Dieldrin	S22-Jn0051006	NCP	%	111			70-130	Pass	
Endosulfan I	S22-Jn0051006	NCP	%	125			70-130	Pass	
Endosulfan II	S22-Jn0051006	NCP	%	105			70-130	Pass	
Endrin	S22-Jn0051006	NCP	%	72			70-130	Pass	
Endrin aldehyde	S22-Jn0051006	NCP	%	103			70-130	Pass	
g-HCH (Lindane)	S22-Jn0051006	NCP	%	105			70-130	Pass	
Heptachlor	S22-Jn0051006	NCP	%	101			70-130	Pass	
Heptachlor epoxide	S22-Jn0051006	NCP	%	95			70-130	Pass	
Hexachlorobenzene	S22-Jn0051006	NCP	%	108			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-Jn0051006	NCP	%	102			70-130	Pass	
Aroclor-1260	S22-Jn0051006	NCP	%	87			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jn0061634	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Jn0061634	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Jn0061634	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Jn0061634	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Jn0061634	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Jn0061634	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Jn0061634	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Jn0061634	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Jn0061634	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jn0061634	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jn0061634	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jn0061634	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jn0061634	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jn0061634	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jn0061634	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0061639	NCP	mg/kg	6.0	8.2	30	30%	Pass	
Cadmium	S22-Jn0061639	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0061639	NCP	mg/kg	12	14	13	30%	Pass	
Copper	S22-Jn0061639	NCP	mg/kg	14	15	7.4	30%	Pass	
Lead	S22-Jn0061639	NCP	mg/kg	14	16	9.6	30%	Pass	
Mercury	S22-Jn0061639	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0061639	NCP	mg/kg	44	38	14	30%	Pass	
Zinc	S22-Jn0061639	NCP	mg/kg	46	51	11	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Jn0064118	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S22-Jn0064118	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Methyl parathion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S22-Jn0064118	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S22-Jn0064118	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Jn0064118	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S22-Jn0064118	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S22-Jn0064118	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S22-Jn0064118	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S22-Jn0064118	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S22-Jn0064118	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S22-Jn0064118	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S22-Jn0064118	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	S22-Jn0064118	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S22-Jn0064118	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S22-Jn0064118	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S22-Jn0064118	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S22-Jn0064118	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S22-Jn0064118	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S22-Jn0064118	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0063529	CP	%	22	20	11	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
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Andrew Black	Analytical Services Manager
Charl Du Preez	Senior Analyst-Organic
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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IANZ # 1290

Company Name: Cavvanba Consulting
Address: 1 / 66 Centennial Cct
Byron Bay
NSW 2481

Project Name:
Project ID: 21075

Order No.:
Report #: 901448
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jun 28, 2022 6:49 PM
Due: Jul 5, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Metals M8	Eurofins Suite B15	Moisture Set	Eurofins Suite B7	Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	QS02	Jun 21, 2022		Soil	S22-Jn0063525			X	X	
2	QS04	Jun 21, 2022		Soil	S22-Jn0063526	X		X		
3	QS06	Jun 21, 2022		Soil	S22-Jn0063527		X	X		X
4	QS08	Jun 21, 2022		Soil	S22-Jn0063528			X	X	
5	QS10	Jun 21, 2022		Soil	S22-Jn0063529	X		X		
6	QS12	Jun 21, 2022		Soil	S22-	X		X		

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Address: 1 / 66 Centennial Cct
Byron Bay
NSW 2481

Project Name:
Project ID: 21075

Order No.:
Report #: 901448
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jun 28, 2022 6:49 PM
Due: Jul 5, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Metals M8	Eurofins Suite B15	Moisture Set	Eurofins Suite B7	Eurofins Suite B7A
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794										
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
					Jn0063530					
7	QS14	Jun 21, 2022		Soil	S22-Jn0063531	X		X		
8	QS18	Jun 21, 2022		Soil	S22-Jn0063532		X	X		X
9	QS20	Jun 21, 2022		Soil	S22-Jn0063533		X	X		X
Test Counts						4	3	9	2	3

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IANZ # 1290

Sample Receipt Advice

Company name:	Cavvanba Consulting
Contact name:	Drew Wood
Project name:	Not provided
Project ID:	21075
Turnaround time:	5 Day
Date/Time received	Jun 28, 2022 6:49 PM
Eurofins reference	901448

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 : 1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Drew Wood - drew@cavvanba.com.

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

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 2 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 889 755	OF: 1 2 3 4 5 6 7 8 9 10 11	Other comment:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):		
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com			
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 24.6.22	DATE/TIME:	DATE/TIME:	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	TRH + BTEXN	W-26: TRH/BTEXN/PAHs/metals (8)								Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
105	QS01	21.6.22	Soil				X											
X	QS02	21.6.22	Soil			S-26: TRH/BTEXN/PAHs/8 Metals Please forward to Eurofins												
106	QS03	21.6.22	Soil					X										
X	QS04	21.6.22	Soil			S-02: Metals (8) Please forward to Eurofins												
107	QS05	21.6.22	Soil			X												
X	QS06	21.6.22	Soil			S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals Please forward to Eurofins												
108	QS07	21.6.22	Soil				X											
X	QS08	21.6.22	Soil			S-26: TRH/BTEXN/PAHs/8 Metals Please forward to Eurofins												
109	QS09	22.6.22	Soil					X										
X	QS10	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins												
110	QS11	22.6.22	Soil					X										
X	QS12	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins												
111	QS13	22.6.22	Soil					X										
X	QS14	22.6.22	Soil			S-02: Metals (8) Please forward to Eurofins												
112	QS15	23.6.22	Soil															
113	QS16	23.6.22	Soil			On hold												
114	QS17	23.6.22	Soil															
X	QS18	23.6.22	Soil			X												
115	QS19	23.6.22	Soil			S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals Please forward to Eurofins												
X	QS20	23.6.22	Soil			X												
116	Trip blank		Soil						X									
117	Trip spike		Soil						X									
118	RB1	23.6.22	Water							X								

LAB OF ORIGIN: NEWCASTLE

Lisa Zulic
28/6/22
6:49PM
1°C

901448

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.

Cavvanba Consulting
1 / 66 Centennial Cct
Byron Bay
NSW 2481

Attention: **Drew Wood**

Report **903722-W**
Project name
Project ID 21075
Received Date Jul 04, 2022

Client Sample ID			**QW02**
Sample Matrix			**Water**
Eurofins Sample No.			**S22-Jl0011942**
Date Sampled			**Jun 29, 2022**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	0.02	mg/L	0.86
TRH C10-C14	0.05	mg/L	1.0
TRH C15-C28	0.1	mg/L	0.8
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	1.8
Naphthalene[N02]	0.01	mg/L	0.15
TRH C6-C10	0.02	mg/L	0.99
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	0.84
TRH >C10-C16	0.05	mg/L	1.1
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.95
TRH >C16-C34	0.1	mg/L	0.3
TRH >C34-C40	0.1	mg/L	0.1
TRH >C10-C40 (total)*	0.1	mg/L	1.5
BTEX			
Benzene	0.001	mg/L	0.12
Toluene	0.001	mg/L	0.008
Ethylbenzene	0.001	mg/L	0.020
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	0.001
Xylenes - Total*	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	98
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.01
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.01
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.01
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001

Client Sample ID			QW02
Sample Matrix			Water
Eurofins Sample No.			S22-Jl0011942
Date Sampled			Jun 29, 2022
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Naphthalene	0.001	mg/L	< 0.01
Phenanthrene	0.001	mg/L	< 0.01
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.01
2-Fluorobiphenyl (surr.)	1	%	[Q09]INT
p-Terphenyl-d14 (surr.)	1	%	100
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	0.002
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	0.001
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	0.003
Zinc (filtered)	0.005	mg/L	< 0.005

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jul 07, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 07, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 07, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jul 07, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jul 07, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8 filtered	Sydney	Jul 07, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins

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Company Name: Cavvanba Consulting
Address: 1 / 66 Centennial Cct
Byron Bay
NSW 2481

Project Name:
Project ID: 21075

Order No.:
Report #: 903722
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jul 4, 2022 3:54 PM
Due: Jul 11, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Eurofins Suite B7 (filtered metals)
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	QW02	Jun 29, 2022		Water	S22-Jl0011942	X
Test Counts						1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

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

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

Results <10 times the LOR: No Limit

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

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	83			70-130	Pass	
TRH C10-C14	%	92			70-130	Pass	
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	85			70-130	Pass	
TRH >C10-C16	%	104			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	98			70-130	Pass	
Toluene	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	97			70-130	Pass	
Xylenes - Total*	%	96			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	98			70-130	Pass	
Acenaphthylene	%	89			70-130	Pass	
Benz(a)anthracene	%	109			70-130	Pass	
Benzo(a)pyrene	%	118			70-130	Pass	
Benzo(b&j)fluoranthene	%	103			70-130	Pass	
Benzo(g.h.i)perylene	%	129			70-130	Pass	
Chrysene	%	126			70-130	Pass	
Dibenz(a.h)anthracene	%	128			70-130	Pass	
Fluorene	%	119			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	127			70-130	Pass	
Phenanthrene	%	116			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	99			80-120	Pass	
Cadmium (filtered)	%	104			80-120	Pass	
Chromium (filtered)	%	99			80-120	Pass	
Copper (filtered)	%	95			80-120	Pass	
Lead (filtered)	%	98			80-120	Pass	
Mercury (filtered)	%	102			80-120	Pass	
Nickel (filtered)	%	96			80-120	Pass	
Zinc (filtered)	%	95			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	N22-JI0007922	NCP	%	79			70-130	Pass	
TRH C10-C14	S22-JI0011343	NCP	%	96			70-130	Pass	
Naphthalene	N22-JI0007922	NCP	%	79			70-130	Pass	
TRH C6-C10	N22-JI0007922	NCP	%	79			70-130	Pass	
TRH >C10-C16	S22-JI0011343	NCP	%	94			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	N22-JI0007922	NCP	%	85			70-130	Pass	
Toluene	N22-JI0007922	NCP	%	88			70-130	Pass	
Ethylbenzene	N22-JI0007922	NCP	%	90			70-130	Pass	
m&p-Xylenes	N22-JI0007922	NCP	%	89			70-130	Pass	
o-Xylene	N22-JI0007922	NCP	%	89			70-130	Pass	
Xylenes - Total*	N22-JI0007922	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	B22-JI0005947	NCP	%	103			75-125	Pass	
Cadmium (filtered)	B22-JI0005947	NCP	%	103			75-125	Pass	
Chromium (filtered)	B22-JI0005947	NCP	%	99			75-125	Pass	
Copper (filtered)	B22-JI0005947	NCP	%	94			75-125	Pass	
Lead (filtered)	B22-JI0005947	NCP	%	94			75-125	Pass	
Mercury (filtered)	B22-JI0005947	NCP	%	100			75-125	Pass	
Nickel (filtered)	B22-JI0005947	NCP	%	96			75-125	Pass	
Zinc (filtered)	B22-JI0005947	NCP	%	97			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	N22-JI0007921	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S22-JI0011342	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S22-JI0011342	NCP	mg/L	0.5	0.5	13	30%	Pass	
TRH C29-C36	S22-JI0011342	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Naphthalene	N22-JI0007921	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	N22-JI0007921	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S22-JI0011342	NCP	mg/L	0.12	0.13	11	30%	Pass	
TRH >C16-C34	S22-JI0011342	NCP	mg/L	0.2	0.3	19	30%	Pass	
TRH >C34-C40	S22-JI0011342	NCP	mg/L	< 0.1	0.1	1.4	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	N22-JI0007921	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	N22-JI0007921	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	N22-JI0007921	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	N22-JI0007921	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	N22-JI0007921	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	N22-JI0007921	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	N22-JI0007922	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S22-JI0011942	CP	mg/L	0.002	0.002	11	30%	Pass	
Cadmium (filtered)	S22-JI0011942	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S22-JI0011942	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S22-JI0011942	CP	mg/L	0.001	0.001	1.3	30%	Pass	
Lead (filtered)	S22-JI0011942	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S22-JI0011942	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S22-JI0011942	CP	mg/L	0.003	0.003	6.7	30%	Pass	
Zinc (filtered)	S22-JI0011942	CP	mg/L	< 0.005	< 0.005	<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
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

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Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

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179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
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Mitchell
ACT 2911
Tel: +61 2 6113 8091

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NATA# 1261 Site# 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Tel: +61 2 4968 8448
NATA# 1261 Site# 25079

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46-48 Banksia Road
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NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose,
Auckland 1061
Tel: +64 9 526 45 51
IANZ# 1327

Christchurch
43 Detroit Drive
Rolleston,
Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: Cavvanba Consulting
Address: 1 / 66 Centennial Cct
Byron Bay
NSW 2481

Project Name:
Project ID: 21075

Order No.:
Report #: 903722
Phone: 02 6685 7811
Fax: 02 6685 5083

Received: Jul 4, 2022 3:54 PM
Due: Jul 11, 2022
Priority: 5 Day
Contact Name: Drew Wood

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Eurofins Suite B7 (filtered metals)
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	QW02	Jun 29, 2022		Water	S22-Jl0011942	X
Test Counts						1

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	4/52 Industrial Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield East NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	PO Box 60 Wickham 2293
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	Tel: +61 2 4968 8448
NATA# 1261 Site# 1254	NATA# 1261 Site# 1254	NATA# 1261 Site# 18217		NATA# 1261 Site# 20794	NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

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

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road	43 Detroit Drive
Penrose,	Rolleston,
Auckland 1061	Christchurch 7675
Tel: +64 9 526 45 51	Tel: 0800 856 450
IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	Cavvanba Consulting
Contact name:	Drew Wood
Project name:	Not provided
Project ID:	21075
Turnaround time:	5 Day
Date/Time received	Jul 4, 2022 3:54 PM
Eurofins reference	903722

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 : 1.7 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Drew Wood - drew@cavvanba.com.

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

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☒ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE: Newcastle	
PROJECT: 21075	ALS QUOTE NO.: SY-412-21
ORDER NUMBER: 21075	
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com	
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com	

COC SEQUENCE NUMBER (Circle)
COC: 0 1 2 3 4 5 6 7 8 9 10
OF: 1 2 3 4 5 6 7 8 9 10

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon Receipt Yes No N/A
Random Sample Temperature on Receipt °C
Other comment: 4.6

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 30.6.22	DATE/TIME: 30/6/22 17:10	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEX/PAHs/Phenols/OC/OP/PCB/8 Metals	S-35: TRH/BTEX/PAHs/8 Metals	S-02: Metals (8)	W-26: TRH/BTEX/PAHs/metals (8)	TRH + BTEX/N						Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	MW01_0-0.1	27.6.22	Soil													GW02
2	MW01_0.3-0.4	27.6.22	Soil													Eurofins
3	MW01_1.0-1.1	27.6.22	Soil													
4	MW01_2.0-2.1	28.6.22	Soil													
5	MW01_4.0-4.1	28.6.22	Soil					X								
6	MW01_5.0-5.1	28.6.22	Soil													
7	MW01_5.5-5.6	28.6.22	Soil													
8	MW01_6.0-6.1	28.6.22	Soil			X										
9	MW02_0-0.1	27.6.22	Soil				X									
10	MW02_0.3-0.4	27.6.22	Soil													
11	MW02_0.7-0.8	27.6.22	Soil													
12	MW02_1.5-1.6	28.6.22	Soil													
13	MW02_3.0-3.1	28.6.22	Soil													
14	MW02_5.0-5.1	28.6.22	Soil					X								
15	MW02_7.0-7.1	29.6.22	Soil													
16	MW03_0-0.1	27.6.22	Soil													
17	MW03_0.3-0.4	27.6.22	Soil			X										
18	MW03_0.5-0.6	27.6.22	Soil													
19	MW03_1.0-1.1	28.6.22	Soil													
20	MW03_2.0-2.1	28.6.22	Soil													

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.

Environmental Division
Sydney
Work Order Reference
ES2223061

Telephone : + 61-2-8784 8555

Lisa Zulic 4/7/22 - 3:54pm 1.7°C

903722

CHAIN OF CUSTODY

ALS Laboratory: please tick →

CLIENT: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	COC SEQUENCE NUMBER (Circle)	Free ice / cooler ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 21075		COC: 1 (2) 3 4 5 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	OF: 1 2 3 (4) 5 6 7 8 9 10 11	Other comments:
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854		
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	RELINQUISHED BY:	RECEIVED BY:
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		DATE/TIME: 30.6.22	DATE/TIME: 30/6/22 17:10
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com			
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD			

RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME:

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	W-26: TRH/BTEXN/PAHs/metals (8)	TRH + BTEXN									Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
21	MW03_3.0-3.1	28.6.22	Soil																
22	MW03_4.0-4.1	28.6.22	Soil			X													
23	MW03_5.0-5.1	28.6.22	Soil				X												
24	MW03_5.9-6.0	28.6.22	Soil					X											
25	MW04_0-0.1	28.6.22	Soil																
26	MW04_0.3-0.4	28.6.22	Soil					X											
27	MW04_0.5-0.6	28.6.22	Soil																
28	MW04_1.0-1.1	28.6.22	Soil																
29	MW04_4.0-4.1	28.6.22	Soil																
30	MW04_7.0-7.1	28.6.22	Soil					X											
31	MW05_0-0.1	29.6.22	Soil																
32	MW05_0.3-0.4	29.6.22	Soil					X											
33	MW05_0.5-0.6	29.6.22	Soil																
34	MW05_1.0-1.1	29.6.22	Soil																
35	MW05_2.0-2.1	29.6.22	Soil																
36	MW05_3.0-3.1	29.6.22	Soil																
37	MW05_4.0-4.1	29.6.22	Soil																
38	MW05_5.9-6.0	29.6.22	Soil					X											
39	MW06_0-0.1	29.6.22	Soil																
40	MW06_0.3-0.4	29.6.22	Soil					X											

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☒ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Newcastle		Custody Seal Intact? Yes / No / N/A
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	Free ice / frozen ice bricks present upon receipt: Yes / No / N/A
ORDER NUMBER: 21075	COC SEQUENCE NUMBER (Circle) COC: 1 2 ~~3~~ 4 5 6 7 8 9 10 11 OF: 1 2 3 ~~4~~ 6 6 7 8 9 10 11	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Drew Wood — CONTACT PH: 0403 689 755		Other comment: 4.5
SAMPLER: Zac Laughlan — SAMPLER MOBILE: 0428 286 854	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO) — EDD FORMAT (or default):	DATE/TIME: 30.6.22	DATE/TIME: 30/6/22 17:10
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com	RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OC/OP/PCB/8 Metals	S-26: TRH/BTEXN/PAHs/8 Metals	S-42: Metals (8)	W-26: TRH/BTEXN/PAHs/metals (8)	TRH + BTEXN							Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
41	MW06_0.5-0.6	29.6.22	Soil														
42	MW06_2.0-2.1	29.6.22	Soil														
43	MW06_4.0-4.1	29.6.22	Soil														
44	MW06_5.0-5.1	29.6.22	Soil					X									
45	MW06_6.9-7.0	29.6.22	Soil														
46	MW01	30.6.22	Water						X								
47	MW02	30.6.22	Water						X								
48	MW03	29.6.22	Water						X								
49	MW04	29.6.22	Water						X								
50	MW05	30.6.22	Water						X								
51	MW06	30.6.22	Water						X								
52	QW01	29.6.22	Water						X								
~~53~~	QW02	29.6.22	Water			W-26: TRH/BTEXN/PAHs/metals (8) Please forward analysis to Eurofins											
53	QS21	29.6.22	Soil														
54	QS22	29.6.22	Soil														
55	RB2	30.6.22	Water						X								
56	Trip Blank		Water							X							
57	Trip Blank		Soil							X							
58	Trip Spike		Water							X							
59	Trip Spike		Soil							X							

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: Cavvanba Consulting	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	☒ Standard TAT (List due date):
OFFICE: Newcastle		☐ Non Standard or urgent TAT (List due date):
PROJECT: 21075	ALS QUOTE NO.: SY-412-21	
ORDER NUMBER: 21075		
PROJECT MANAGER: Drew Wood	CONTACT PH: 0403 689 755	
SAMPLER: Zac Laughlan	SAMPLER MOBILE: 0428 288 854	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	
Email Reports to (will default to PM if no other addresses are listed): drew@cavvanba.com, zac@cavvanba.com		
Email Invoice to (will default to PM if no other addresses are listed): rob@cavvanba.com		

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7 8 9 10 11

OF: 1 2 3 4 5 6 7 8 9 10 11

FOR LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt Yes No N/A

Random Sample Temperature on Receipt: 4.6 °C

Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE/TIME: 30·6·22	DATE/TIME: 30/6/22 17:10	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL: Please place remaining samples not selected for analysis ON HOLD

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 (refer to codes below)	TOTAL CONTAINERS	S-19: TRH/BTEXN/PAHs/Phenols/OCP/PCB/8 Metals	S-25: TRH/BTEXN/PAHs/8 Metals	S-02: Metals (8)	W-28: TRH/BTEXN/PAHs/Metals (8)	TRH + BTEXN	Asbestos fragment identification					Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
60	ACM01	27.6.22	Fragment								X					
61	ACM02	29.6.22	Fragment								X					
62	ACM03	30.6.22	Fragment								X					
63	ACM04	30.6.22	Fragment								X					

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.