Ref: 0301-2120_06

26 October 2022

Erran Woodward
Environment Manager
Acciona Ferrovial Joint Venture
Sydney Metro West – Central Tunnelling Package

Via email only: erran.woodward@ctp-afjv.com.au

Dear Ms Woodward,

RE: Interim Site Audit Advice – Site Auditor Endorsement of revised Detailed Site Investigation, North Strathfield Station, Sydney Metro West (Rev 02 Dated 22 August 2022).

Introduction

James Davis of Enviroview Pty Ltd has been engaged by Acciona Construction Pty Ltd and Ferrovial Construction Pty Ltd (the 'AFJV') to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s.105 of that Act in relation to the Site identified as North Strathfield Station, Sydney Metro West Central Tunnelling Package (the 'Site'[1]).

The objective of the Site Audit, depending on the outcome of the site investigation is to provide a Site Audit Report and Site Audit Statement to certify, in relation to contaminated land, the Site Auditor's opinion of whether the Site is suitable for the proposed use.

The requirement for the Site Audit is to enable clauses of an agreement made between the NSW Government and the AFJV (the *Deed Agreement*) to be met.

A Site Audit Interim Advice is issued by a Site Auditor following the review of reports and to assist in the management of contamination issues at a Site regarding requirements of the Site Audit at a particular stage of the Site Audit prior to the Site Audit being concluded. An interim advice does not constitute a Site Audit Statement or a Site Audit Report and does not pre-empt the final Site Audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit.

The purpose of this interim advice is to provide an endorsement of the Detailed Site Investigation by the Site Auditor as required by the *Deed Agreement* (clause 12.19). Previous

[1] *The specific area of the Site is as defined as the 'Site Boundary' notated in figure F1 of the Detailed Site Investigation Report (Epic Environmental, 2022).*

revisions of the Detailed Site Investigation were endorsed by the Site Auditor, however subsequent revisions made to the document required further review and reissue of this endorsement.

Detailed Site Investigation Review

The Detailed Site Investigation that was recently undertaken at the Site is reported in the following report:

> Epic Environmental Pty Ltd (ERM). *North Strathfield Station, Detailed Site Investigation.* Report Reference: SMWSTCTP-AFJ-NST-EN-RPT-000001-Revision 02, dated 22 August 2022. (the revised *Detailed Site Investigation Report*)

Prior to the completion of this report, the Site Auditor was provided the opportunity to review and provide comments on the previous revision of the report as follows:

> Epic Environmental Pty Ltd (ERM). *North Strathfield Station, Detailed Site Investigation.* Report Reference: SMWSTCTP-AFJ-NST-EN-RPT-000001-Revision 02, dated 19 May 2022.
>
> Epic Environmental Pty Ltd (ERM). *North Strathfield Station, Detailed Site Investigation.* Report Reference: SC210090.01-RPT_AFJV_SMW_NorthStrathfield_DSI_RevD, dated 21 March 2022.
>
> Epic Environmental Pty Ltd. North Strathfield Station, Detailed Site Investigation. Report Reference: SC210090.01-RPT_AFJV_SMW_NorthStrathfield_DSI_RevC, dated 2 March 2022.

In support of the review of the revised Detailed Site Investigation, the Auditor has also considered information presented in the following document:

> Epic Environmental Pty Ltd. North Strathfield Station, Sampling, Analysis and Quality Plan. Report Ref.: SC210090.01-RPT_AFJV_NorthStrathfield_SAQP_RevD_13Jan2022, dated 13 January 2022. (the *Sampling, Analysis and Quality Plan*)

The Detailed Site Investigation was undertaken in general accordance with the *Sampling, Analysis and Quality Plan* that was prepared with Site Auditor consultation.

The revised *Detailed Site Investigation Report* was found to be satisfactory in relation to the requirements of the NSW EPA guidelines for consultants reporting on contaminated land (NSW EPA 2020). The changes made to the revised version of the document are acceptable.

The soil investigation was limited to the northern construction zone only, in accordance with the requirements of the Deed, as the southern construction zone will not be subject to intrusive construction works, excavation or disturbance.

The investigation of the northern construction zone did not identify the presence of soil contamination exceeding the adopted assessment criteria. Although asbestos was not identified during the investigation, an asbestos management cell ('Asbestos Cell A') is present within the northern construction zone, and this lies entirely within the planned station box footprint. As such it is assumed that asbestos contaminated soils will be encountered during excavation works of the Station Box. The Detailed Site Investigation Report concluded that a Remediation Action Plan was not required to make the site suitable, however the presence of contaminated soil will need to be managed through the project Asbestos Management Plan

and disposed off-site in accordance with relevant spoil and waste management plans that are sub-plans for the project Construction Environment Management Plan.

Elevated heavy metals concentrations were reported in groundwater however this was considered indicative of background levels and was not considered to warrant further investigation.

The asbestos management cell ('Asbestos Cell B') within the southern construction zone will not be disturbed as there is no planned excavation in that area. The management of that cell will continue under an Environmental Management Plan that was prepared for the long-term management of the asbestos cell[2].

Site Auditor Endorsement of the Detailed Site Investigation

Based on the recent site investigation works, the revised Detailed Site Investigation is endorsed by the Site Auditor and the conclusions are generally agreed with.

The Site Auditor concurs that the excavation works and removal of any asbestos contaminated soil from the management cells can be managed in accordance with existing project plans for asbestos and the management of spoil and waste.

As construction activities in the southern construction zone will not require excavation or disturbance, the detailed site investigation was not required for that area and that part of the site can continue to be managed through the ongoing implementation of the Environmental Management Plan prepared for the cell. As such the Site Audit conclusion (the Site Audit Statement) will be confined to the northern construction zone, and once excavation for the Station Box has been completed and the associated spoil removed from the site. Written documentation of this having occurred will need to be provided to enable the Site Audit to be concluded.

It is noted that the in-situ classification works, relating to material within the station box that was conducted, has not been included within the *Detailed Site Investigation Report* and that classification should be reported in accordance with the appropriate CEMP sub-plan.

Closing

Thank you for your time regarding this matter. I look forward to being provided with a further documentation related to the station box construction when this is available.

If you require additional information or clarification, please do not hesitate to contact me.

Yours sincerely

James Davis
NSW EPA Contaminated Land Site Auditor

[2] *A. D. Envirotech Australia Pty Ltd (ADE) (July 2015) Environmental Management Plan Gate NS1, Sydney Trains Rail Corridor, CH13+286 to CH13+350, Queen St, North Strathfield NSW. Report Reference: 9271 / EMP3 / v1 final, dated 27 July 2015.*

Enviroview Pty Ltd

North Strathfield Station – Detailed Site Investigation

SMWSTCTP-AFJ-NST-EN-RPT-000001-Revision 02

Sydney Metro West – Central Tunnelling Package

DOCUMENT APPROVAL

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Date:	22/08/2022	22/08/2022	22/08/2022

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00	21/03/2022	All	Epic Environment	For Site Auditor endorsement and Sydney Metro Review
01	19/05/2022	All	Epic Environment	Updated to address Sydney Metro comments
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ACCIONA FERROVIAL JOINT VENTURE

NORTH STRATHFIELD STATION DETAILED SITE INVESTIGATION

ACCIONA FERROVIAL JOINT VENTURE

NORTH STRATHFIELD STATION DETAILED SITE INVESTIGATION

22 AUGUST 2022

NORTH STRATHFIELD STATION

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Document Control

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EXECUTIVE SUMMARY

Epic Environmental Pty Ltd (Epic) was engaged by Acciona Ferrovial Joint Venture (AFJV) to undertake a detailed site investigation (DSI) at the proposed North Strathfield metro station. The primary objective of the DSI is to gain sufficient information on the nature and extent of soil and groundwater contamination to assess the suitability of the site to be utilised during the construction (and where applicable operational) phases of the Project. Further, for the two shaft excavations, contamination data is required to inform classification of fill, natural soils and rock to support subsequent reuse or offsite disposal. Interpretation of this data does not form part of the scope of work and is not included within this report.

To achieve the objectives, the following scope of work was undertaken:

- Conduct searches and review of historical information relating to the site from available sources including previous reports, government databases and contaminated land registers
- Completion of a site inspection and advancement of 18 boreholes (BH03 to BH20) across the northern construction zone to depths of up to 21.0 metres below ground level (m bgl)
- Logging of the lithological profile encountered at each location and collection of soil samples at targeted depths
- Gauging and sampling of three existing groundwater wells (SMW_BH009s, SMW_BH073, and SMW_BH711)
- Submission of selected soil and groundwater samples to a laboratory for analysis of the defined suite of contaminants
- Completion of a site inspection in the southern construction zone to advise on the surface condition of the asbestos containment cell

Historical review of the site indicated that no major developments or industrial activities have occurred on the site, apart from documented asbestos management cells previously constructed in the southern and northern construction zones.

The site is currently unused open space in the northern construction zone, while the southern construction zone is bitumen sealed with service related infrastructure including stormwater collection tanks, Ausgrid transformers, and firefighting infrastructure. An asbestos encapsulation cell (Cell B) is located in the southern construction zone, however this area will not be disturbed as part of the project works. A batter containing asbestos (Cell A) is located in the northern construction zone. With the exception of the asbestos cells, the site's history indicates limited sources of contamination are likely to be present onsite.

The fill depth in the northern construction zone was assessed, with fill recovered as brown/grey clay gravel mix to a maximum depth of 6.0 mbgl. Anthropogenic material in fill included scrap metal,

concrete, geofabric, brick and timber. Asbestos containing material (ACM) was not identified during the intrusive investigation and no potential ACM was observed within fill material, however it is noted that boreholes can be limited in visually identifying bonded ACM.

Samples collected during the soil investigation reported contaminants of potential concern (COPC) below the adopted human health commercial/industrial assessment criteria in the northern construction zone, including asbestos containing material (ACM) which was not identified during the intrusive investigation. However, the documented presence of an asbestos management cell (asbestos cell A) within the station box area indicates that ACM contaminated soils will likely be encountered during this excavation. While this assessment indicates that remediation is not required for construction or for ongoing post construction land use, documented asbestos contaminated soils should be removed by a licensed asbestos removalist (Class A or B) in accordance with the existing construction environmental management plan (CEMP), which includes the project asbestos management plan (AMP) and disposed to a landfill licensed to accept this waste.

Given that construction activities will facilitate the complete removal of the northern asbestos cell A with no interference with the southern asbestos cell B, Epic considers there is no requirement for a Remedial Action Plan (RAP) for this site. Following station box construction, Epic considers the site will be suitable for on-going construction and post construction land-use and that any remaining residual fill will be sealed behind concrete pile walls.

Sampling was not completed in the southern construction zone following discussion with AFJV and the Site Auditor due to the lack of intrusive works required in this area and the significant amount of underground services leading to inability to achieve suitable drilling locations. Contamination at this location has been characterised by ADE (2015) and is currently managed under a passive Environmental Management Plan. If the final site layout is changed significantly, or intrusive construction is required in the southern construction zone further assessment may be required.

Groundwater samples collected during the GME reported COPC below the adopted assessment criteria (with the exception of nickel, copper and zinc). Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health, including vapour intrusion, and does not preclude the site from commercial/industrial land use.

1 INTRODUCTION

Sydney Metro West (SMW) is a new 24-Kilometre metro line between Westmead and Sydney CBD providing a turn-up-and-go service (**Figure 1**). The planning approvals and environmental impact assessment for Sydney Metro West have been broken down into a number of stages recognising the size of the project. The Central Tunnelling Package (CTP) involves eleven-kilometre twin tunnels, five new stations, and the corresponding auxiliary facilities, between Sydney Olympic Park and The Bays Precinct.

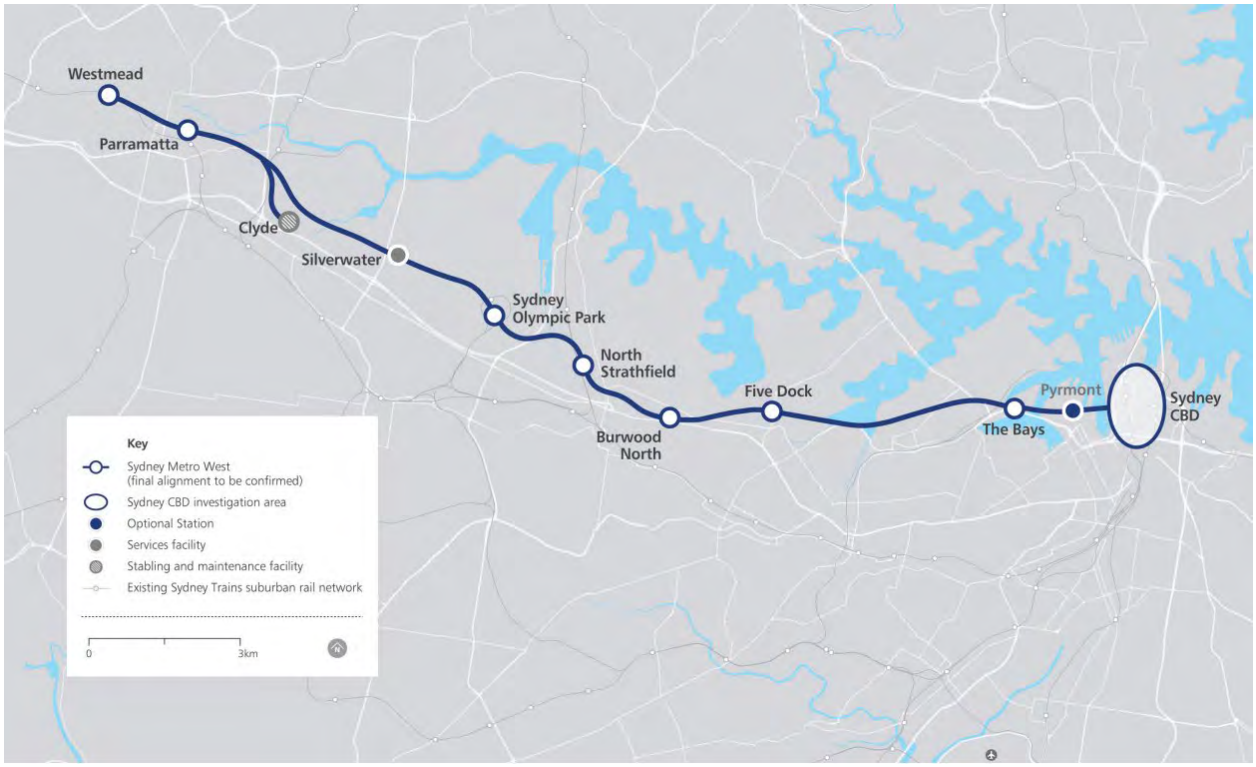

Figure 1: Sydney Metro West alignment (Sydney Metro, 2020)

Condition D71 of the Sydney Metro West – Concept and Stage 1 Conditions of Approval (2021) requires a detailed site investigation (DSI) to be undertaken prior to commencement of construction in moderate to high risk contaminated areas.

The North Strathfield station construction site has a moderate potential contamination risk rating and Epic Environmental Pty Ltd (Epic) has been engaged by Acciona Ferrovial Joint Venture (AFJV), to undertake a DSI to satisfy condition D71 at the proposed station site. Additionally, if remediation is required, a site audit statement is to be issued by a NSW EPA accredited site auditor that certifies the remedial action plan (RAP) is appropriate and that the site can be made suitable.

The North Strathfield station site location is shown on **Figure F1**. The station is being constructed as a single cavern, with a station shaft located between Queen Street and the current North Strathfield Station.

The primary purpose of the DSI is to gain sufficient information on the nature and extent of soil and groundwater contamination within areas of the site to be utilised during the construction (and where applicable operational) phases of the project and assess their suitability for commercial/industrial land uses. Further, for the shaft excavation, contamination data is required to inform classification of fill material, natural soils and rock. Epic undertook the DSI in accordance with the sampling, analysis and quality plan (SAQP) prepared in January by Epic (2022) and approved by the site auditor.

1.1 OBJECTIVES

As per Epic (2022), the specific objectives of the DSI are to:

- Obtain sufficient contamination data for waste classification of fill material to be excavated – confirm general solid waste (GSW) and potential for meeting criteria under the Excavated Natural Material Order 2014[1] (ENM Order)
- Obtain sufficient contamination data for classification of natural soils and rock within the station box footprint as virgin excavated natural material (VENM) – and where elevated contamination is identified, delineate for separate management as either ENM, a specific resource recovery order (RRO) or waste classification[2] (GSW or other)
- Obtain sufficient information to allow for more accurate estimation of material volumes within the Sydney Metro spoil management hierarchy
- Obtain groundwater contamination data for groundwater likely to be encountered during construction works and to inform on the site contamination status to identify risks to offsite receptors
- Obtain sufficient contamination data for near surface soils within the intrusive construction footprint to assess the suitability of areas for commercial/industrial land uses during construction – for protection of worker health, as well as for site suitability for ongoing post construction land use

Obtain sufficient data to advise on future remediation requirements, where required Epic notes that interpretation of contamination data for waste classification, VENM, ENM and volume estimation is not included in the scope of work and is not included in this DSI report.

1.2 SCOPE OF WORK

To achieve the objectives outlined above, the following scope of works were undertaken in accordance with relevant NSW EPA environmental guidelines:

[1] *Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment (Waste) Regulation 2014*, NSW EPA (2014)
[2] In accordance with the NSW EPA (2014) 'Waste Classification Guidelines - Part 1: Classifying Waste'

- Searches and review of historical information relating to the site from available sources including previous reports, government databases and contaminated land registers
- Completion of a site inspection to observe and record any indications of current or past potentially contaminating activities, on the site or on adjoining properties
- Completion of a site inspection in the southern construction zone to advise on the surface condition of the asbestos containment cell
- Advancement of 18 boreholes (BH03 to BH20) across the northern construction zone to depths of up to 21.0 metres below ground level (m bgl) using non-destructive drilling techniques and a track mounted drill rig
- Logging of the lithological profile encountered at each location and collection of soil samples at targeted depths
- Gauging and sampling of three existing groundwater wells (SMW_BH009A, SMW_BH073, and SMW_BH711)
- Submission of selected soil and groundwater samples to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of the defined suite of contaminants
- Preparation of this DSI report

1.3 REGULATORY FRAMEWORK

The DSI was carried out with consideration of the following relevant guidelines:

- Australian Standard: AS4482.1 2005, 'Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds'
- Australian Standard: AS4482.1 1999, 'Guide to the sampling and investigation of potentially contaminated soil – Part 2: Volatile substances'
- Australian Standard: AS/NZS 5667.11 1998, Water Quality – Sampling – Guidance on Sampling of Groundwaters
- EPA Victoria (2010) 'Industrial Waste Resource Guidelines (7), Sampling and Analysis: Soil Sampling' (IWRG, 2010)
- *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM), The National Environment Protection Council (NEPC), as amended May 2013 (NEPC, 2013)
- National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA) 2020 'PFAS National Environmental Management Plan Version 2.0'
- NSW Environment Protection Authority (NSW EPA) 1995, 'Sampling Design Guidelines'
- NSW EPA 2020, 'Consultants Reporting on Contaminated Land – Contaminated Land Guidelines'
- NSW EPA 2017, 'Guidelines for the NSW Site Auditor Scheme, (3rd edition)'
- NSW EPA 2014, 'Waste Classification Guidelines – Part 1: Classifying Waste'
- *State Environmental Planning Policy No 55—Remediation of Land* (current version 17 April 2020)
- NSW Department of Environment, Climate Change and Water (NSW DECCW) 2010, 'Vapour Intrusion: Technical Practice Note'

- ANZG 2018, 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality', Australian and New Zealand Governments and Australian State and Territory Governments, Canberra ACT, Australia. Available at www.waterquality.gov.au/anz-guidelines

2 SITE IDENTIFICATION AND DETAILS

The proposed North Strathfield station is located adjacent to the west of Queen Street, between Shipley Ave and Pomeroy st/Beronga St, approximately 10 km west of Sydney central business district (CBD). The site is in an area of commercial and low-density residential land use and occupies two separate construction zones. The north zone includes the proposed station shaft excavation while the south zone will be used during construction for on grade carparking and the location of aboveground construction sheds and offices.

Site details are summarised in **Table 1** below and the site layout and location are shown in **Figure F1**, at the end of this report.

Table 1: Site Description

Category	Details
Site description	Sydney Metro West North Strathfield Station
Site address (approximate)	100 Queen Street North Strathfield, NSW 2137
Lot description	Lot 50 DP1219136
Site co-ordinates (centre of site)	323160.517 S, 6251906.366 E
Current owner	Transport for NSW
Current occupier	Sydney Metro West, and vacant
Site area	Northern zone: 6,120 m^2 Southern zone: 2,970 m^2
Local Government Authority	City of Canada Bay Council
Current zoning	SP2 Railway
Trigger for assessment	Change in land use – North Strathfield Metro Station construction
State or local government statutory controls	N/A
Legal permission to access site	Yes

2.1 SITE INSPECTION

A site inspection was completed on 2 November 2021 by the Epic project team, accompanied by the site auditor (James Davis of Enviroview) and AFJV representative Jonathan Coffey. Relevant information noted during the inspection and obtained during the desktop research is included in **Table 2** below.

Table 2: Site condition and surrounding details

Category	Observation
Current land use	The northern construction zone is currently fenced and vacant, pending construction of the Sydney Metro North Strathfield Station. A rail access driveway is located in the southern area of the northern construction zone. The southern construction zone is currently fenced with service related infrastructure including stormwater collection tanks, Ausgrid transformers, and firefighting infrastructure.
Boundary conditions	The northern construction zone is currently fenced with chain-link fencing along the north, east and south boundaries. The western boundary includes an embankment and the North Strathfield train station and associated rail.

Category	Observation
	The southern construction zone is currently fenced with metal security fencing (approximately 2.5 m high) and a drainage channel within the site on the eastern boundary. The western boundary includes a retaining wall and the North Strathfield train station and associated rail.
Site structures	No existing structures were noted in the northern construction zone. Existing structures in the southern zone consist of the following: ▪ Ausgrid transformers and associated shed ▪ Firefighting infrastructure including a pumping shed ▪ Two 10,000 L stormwater retention tanks
Surface covering	The northern construction zone predominantly consists of grass and gravel with an asphalt rail access driveway. Shrubs and mature trees are located on the southern boundary. The southern construction zone predominantly consists of asphalt.
Chemical storage areas	No chemical storage was observed during the site inspection.
Aboveground and underground storage systems	No above ground or underground storage systems, or indications such as vents or fill points, were observed during the inspection.
Evidence of debris and waste disposal	Indications of debris or waste disposal to the site (including waste oil, chemical containers or staining) were not observed during the inspection.
Services and utilities	Services observed during the site inspection included: ▪ Stormwater drains on Queen Street to the east of the site and a concrete drainage channel on the eastern boundary of the southern construction zone ▪ Overhead power lines ▪ Firefighting infrastructure including pumps and a 'tunnel sump foam inlet point' in the southern construction zone ▪ Electrical transformer and kiosk (likely associated with North Strathfield station) in the southern construction zone ▪ Communications along the Queen Street footpath
Electrical transformers, substations or capacitors	An electrical substation and energy kiosk was observed in the northern area of the southern construction zone.
Staining/odours	Staining or odours on the ground surface were not observed during the site inspection.
Stockpiled material and filling	The northern and southern construction zones are level with Queen Street and approximately 7 m above the North Strathfield rail. An embankment was observed in the northern construction zone on the western boundary and a retaining wall was observed in the southern construction zone on the western boundary, indicating filling is likely to have occurred in both zones during the construction of the rail corridor. No stockpiled materials were observed.
Existing waste containment cells	While the waste containment cells within the site boundary were not visible during the site inspection, the following information is summarised from ADE 2015a and 2015b: ▪ One containment cell (Cell B) is located in the southern construction zone with encapsulated material previously classified as general solid waste – special waste (asbestos). The encapsulation cell has a high visibility geofabric marker layer overlying the impacted material and 200mm of cement densely graded base which is sealed with asphalt. ▪ A batter located in the northern construction zone (Cell A) contains asbestos contaminated fill. 150 to 500 mm of clean fill was applied as a capping layer. No marker layer was installed and the depth/extent of the asbestos impacted material is not known.

Category	Observation
Vegetation cover and condition	Vegetation was limited to grass in the northern construction zone and mature trees / shrubs adjacent to the eastern boundary along Queen Street. Vegetation appeared healthy with no notable phytotoxic impacts.
Erosion	No erosion was observed onsite.
Surface water bodies	No surface water bodies were observed onsite.
Surface water flow and drainage	The topography was level with Queen Street to the east. The western boundaries were approximately 2 to 3 m raised above the rail corridor. Surface water flow is expected to be towards the west, into the stormwater drain network. In unsealed areas, infiltration is expected into the soil profile followed by percolation to the water table. Surface water would be expected to flow north via the street drainage networks and ultimately discharge to tributaries of the Paramatta River, approximately 2.5 km to the north.
Naturally occurring contaminants	No potential for naturally occurring contaminants including acid sulfate soils or naturally occurring radiological materials were identified.
Potential offsite sources of contamination	Potential offsite sources of contamination were limited to the dry cleaners located approximately 20 m east, a funeral home approximately 50 m east, and a service station located approximately 350 m southeast. A service station is also located approximately 320 m southwest, however is unlikely to impact the site given the source is located downgradient.

2.2 SURROUNDING LAND USES

The site is located adjacent to the existing North Strathfield Railway Station, surrounded by commercial retailers and low density residential premises. At the time of this investigation the surrounding land use was as follows:

- **North –** Pomeroy Street with low-density residential dwellings beyond
- **East –** Queen Street with low-density residential and commercial properties beyond
- **South –** Queen Street, residential dwellings and a railway line.
- **West** – Sydney Trains North Strathfield Railway Station with McDonald Collage and Our Lady of the Assumption Catholic Primary School, and low-density residential dwellings beyond

2.3 SENSITIVE ENVIRONMENTS

The nearest sensitive human health receptors are the low-density residential premises surrounding the site 50 m to the east and Our Lady of the Assumption Catholic primary school to the west.

The nearest sensitive environmental receptors are flora and fauna of Powells Creek and Allen Street Reserve located 350 m west of site, as well as Mason Park wetlands located 500 m to the northwest.

With reference to the Bureau of Meteorology – Groundwater Dependent Ecosystem Atlas, accessed 29 November 2021, there are no groundwater dependent ecosystems within 1.0 km of the site.

2.4 CLIMATE

The site is located within a temperate climate shifting from mild and cool in winter to warm and hot in the summer, with no extreme seasonal differences as the weather is moderated by proximity to the ocean. Temperature and rainfall averages obtained from the Canterbury Racecourse station via the Bureau of Meteorology website on the 29 November 2021 are summarised in **Table 3** below.

Table 3: Climate summary data

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temp. °C	27.9	27.3	25.9	23.6	20.7	18.1	17.7	19.0	21.9	23.6	24.9	26.7
Avg. Min. Temp. °C	18.5	18.3	16.6	12.8	9.2	7.1	5.7	6.4	9.3	12.2	14.9	16.9
Avg. Rainfall	78.0	115.2	95.1	94.8	74.1	105.5	56.4	62.9	48.5	63.9	73.8	64.1

The Canterbury Racecourse weather station is approximately 6 km southeast of the site. The data summarised is between 1995-2021

2.5 GEOLOGY

With reference to the Department of Mineral Resources 1:100,000 Geological Sheet for Sydney, the site is likely to be underlain by the Middle Triassic aged Ashfield Shale. The Ashfield Shale consists of black to dark grey shale and laminite. This is expected to be underlain by the Triassic aged Hawkesbury Sandstone, which consists of medium to coarse grained quartz sandstone.

2.5.1 Soil Landscape

With reference to the Department of Planning, Industry and Environment 2013 'Soil Landscapes of Central and Eastern NSW', natural soils at the site form part of the Blacktown residual soil landscape. The Blacktown soil landscape is formed on gently undulating rises on Wianamatta Group shales, and consists of Red and Brown Podzolic Soils on crests, upper slopes and well-drained areas; and Yellow Podzolic Soils and Soloths on lower slopes and in areas of poor drainage.

2.5.2 Acid Sulfate Soils

Review of the Department of Land and Water Conservation Acid Sulfate Soil Risk Mapping accessed via the eSpade[3] v2.1 portal indicates the site has no known occurrence of acid sulfate soils (ASS).

[3] ASS probability layer from espade.environment.nsw.gov.au © State of NSW and Department of Planning, Industry and Environment 2020, viewed 22 October 2021.

A review of the City of Canada Bay Local Environmental Plan (2013) ASS mapping indicated that the site is classified as Class 5 ASS risk. For Class 5 ASS risk, development consent is required for carrying out works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum (mAHD) and by which the water table is likely to be lowered below 1 mAHD on adjacent Class 1, 2, 3 or 4 land.

2.6 TOPOGRAPHY

With reference to the NSW 1:100 000 topographic map series, accessed online via the NSW Government Spatial Information Exchange (SIX Maps: https://maps.six.nsw.gov.au/) on the 29 November 2021, the site is located at an elevation of approximately 20 mAHD. Regionally the site and surrounding area slope to the west towards Powells Creek.

2.7 HYDROGEOLOGY AND HYDROLOGY

2.7.1 Hydrogeology

Groundwater is likely to be encountered in a shallow residual soil aquifer perched above the Ashfield Shale, at between 5.0 and 8.0 metres below ground level (mbgl), and in Hawkesbury Sandstone fractured bedrock aquifer at approximately 15 mbgl (Jacobs, 2020a). Groundwater is likely flowing towards the northwest towards Powells Creek and Homebush Bay.

2.7.2 Registered Bore Search

A search of the Australian Groundwater Explorer, accessed via http://www.bom.gov.au/water/groundwater/explorer/map.shtml on 9 December 2021 indicated that there are no groundwater bores are located within 500 m of the site. The nearest registered groundwater bore (GW111674.1.1) is located 600 m to the west, adjacent to Powell reserve. The groundwater bore was installed to 5.4 m; aquifer details including lithology and standing water level were not provided.

2.7.3 Hydrology

There are no surface water bodies present onsite. The nearest surface water body is Powells Creek located 350 m west which discharges to Homebush Bay on the Parramatta River, approximately 2.1 km to the north. Parramatta River is most closely approximated to a marine ecosystem.

It is inferred that in sealed areas of the southern construction zone, rainfall would generally flow to the west over hard surfaces to the site stormwater system or be captured in the concrete lined drainage channel on the eastern boundary. The source of water in the two 10,000 L water retention tanks in the southern construction zone is not known.

In unsealed areas of the site (northern construction zone), infiltration is expected into the soil profile followed by percolation to the water table. Any overland flow would likely be towards to the west, ultimately collecting in stormwater drains and discharging to Powells Creek.

2.7.4 Flooding

With reference to the ePlanning Spatial Viewer[4] map layer 'flood planning' reviewed on 9 December 2021, the site was not included within the flood planning of the Canada Bay Local Environmental Plan (2013).

[4] ePlanning: accessed via https://www.planningportal.nsw.gov.au/spatialviewer/ on 9 December 2021.

3 SITE HISTORY

3.1 HISTORICAL AERIAL HISTORY

A summary of observations from historical aerial photography, from Jacobs (2020) and verified by Epic, is provided in **Table 4**.

Table 4: Historical aerial photograph observations

Aerial Photo Year	Site Description	Surrounding Areas Description
1943	The site contains some small buildings and pathways in the centre of the site. Trees are visible to the south and the remainder of the site is covered with grass.	Areas surrounding the site comprise predominantly low-density residential to the east, west and north, with minor mixed commercial/industrial and/or retail (east), and the North Strathfield railway station, and a school (west).
1955	The northern portion of the site has been partially excavated, the remainder of the site does not appear to have seen significant changes since the 1943 image.	The areas surrounding the site do not appear to have undergone significant development since the 1955 image.
1965	The site does not appear to have seen significant changes since the 1955 image.	The areas surrounding the site do not appear to have undergone significant development since the 1955 image.
1971	The site does not appear to have seen significant changes since the 1955 image.	The school to the west has been developed, no other surrounds appear to have undergone significant development since the 1965 image.
1986	A hardstand has been laid in the north and southern portions of the site and a small structure has been built in the south.	The areas surrounding the site do not appear to have undergone significant development since the 1971 image.
1991	The roof of the small structure in the centre of the site has been changed from a red to a white material, likely steel or fibre cement, another small structure has been built.	The areas surrounding the site do not appear to have undergone significant development since the 1986 image.
2004	A large structure has been constructed within the southern portion of the site, hardstand has been spread throughout the northern portion of the site and is now being used as a storage/ laydown area.	Schools to the west have continued to expand. The remaining areas surrounding the site do not appear to have undergone significant development since the 1991 image.
2020	A railway underpass dive has been constructed in the southern portion of the site along with an asphalt hardstand. The northern portion of the site has been filled and a bare soil cover remains. This description of the site aligns with the site inspection conducted by Epic in November 2021.	The areas surrounding the site do not appear to have undergone significant development since the 2004 image.

3.2 REVIEW OF PREVIOUS INVESTIGATIONS

The following relevant environmental investigations have been reviewed by Epic:

- ADE (2015a) 'Asbestos Cap Validation Report', report ref 9721 / VAL1 / v1 final dated 27th July 2015
- ADE (2015b) 'Environmental Management Plan'. Report ref 9271 / EMP3 / v1 final, dated 27th July 2015

- ADE (2015c) 'Environmental Management Plan', Report ref 9271 / EMP1 / v1 final, dated 31st July 2015
- GHD (2010) 'Report for Sydney Metro Network Stage 2 (Central to Westmead) Geotechnical Interpretive Report: Part II Contamination, report ref MW-2110-GHD-C_028 dated February 2010
- Jacobs (2020a) Metro West Stage 1 Technical Paper 8: Contamination. Report ref IA199800 dated April 2020
- Jacobs (2020b) Tender Advice Note. Report reference CEN-JTJV-PW-GT-TAN-0030, dated 18 December 2020

A summary of relevant information pertaining to the North Strathfield Station site is presented below in **Table 5** to **Table 10**.

Table 5: Review summary of ADE 2015a

Document Title:	Asbestos Cap Validation Report, Gate NS1, Sydney Trains Rail Corridor, CH13+286 to CH13+350, Queen St, North Strathfield NSW
Prepared by:	ADE
Dated:	27 July 2015
Key Objectives:	
The purpose of the validation report was to review the suitability of the capping layer installed above the southern area asbestos containment cell.	
Key Findings:	
▪ One of two onsite containment cells containing asbestos contaminated fill is located in the southern construction zone between the rail corridor and Queen Street ▪ Encapsulated materials were previously classified as general solid waste (GSW) - special waste (asbestos) and asbestos in soil concentrations exceeded the adopted commercial/industrial site criteria of 0.05% w/w ▪ The inspection of the capping layer identified a high visibility geofabric marker layer on top of the asbestos impacted material, a 200 mm thick layer of 3% cement densely graded base (DGB) and an asphalt sealant across the entire site ▪ High visibility geofabric was not installed on the eastern boundary due to the possibility of undermining the concrete drain. Due to this, it was noted that the eastern edge of the drain should be considered the contamination extent. ▪ The capping layer was completed in accordance with ANZECC (1999) guidelines ▪ The depth of the asbestos containment cell was not identified during the site inspection ▪ The capping layer was deemed suitable with regards to the known asbestos contamination within the containment cell ▪ ADE recommended the development of an Environmental Management Plan (EMP)	

Table 6: Review summary of ADE 2015b

Document Title:	Environmental Management Plan, Gate NS1, Sydney Trains Rail Corridor, CH13+286 to CH13+350, Queen St, North Strathfield NSW
Prepared by:	ADE
Dated:	27 July 2015
Key Objectives:	
Ensure the adequate protection of site workers/visitors from exposure to asbestos contaminated fill materials at the southern onsite containment cell.	

Key Findings:
▪ Historical sampling of "NSRU Stockpile 124", an approximately 1,000 m^3 soil stockpile identified concentrations of bonded asbestos fibre cement exceeding the adopted criteria of 0.05% w/w asbestos in soil ▪ The subject stockpile was used as backfill within the southern construction area to approximately 0.2 m below ground level beneath a sealant layer of asphalt and cement reinforced DGB, underlain by a high visibility geofabric marker layer ▪ The EMP requires major works that are likely to penetrate the capping layer to consider exposure to asbestos included within their safe work method statements (SWMS) ▪ A licenced asbestos removal contractor must be engaged to control any asbestos risks associated with intrusive works within the containment cell ▪ A qualified occupational hygienist is recommended to be engaged during any intrusive works within the containment cell. ▪ After any major works have been completed, the area must be inspected to ensure all asbestos materials have been cleared and that the capping layer has been reinstated to a satisfactory standard.

Table 7: Review summary of ADE 2015c

Document Title:	Environmental Management Plan, Sydney Trains Rail Corridor, Site from CH13+420 to CH13+520 (Up-Main), Queen St, North Strathfield NSW
Prepared by:	ADE
Dated:	31 July 2015
Key Objectives:	
Ensure the adequate protection of site workers/visitors from exposure to asbestos contaminated fill materials at the northern onsite asbestos contaminated embankment.	
Key Findings:	
▪ A batter located within the northern construction zone was found to be containing bonded asbestos contaminated fill, sourced from portions of the North Strathfield Railway Underpass (NSRU) construction area ▪ Further investigations found the fill materials meet the commercial/ industrial land use criteria (HIL-D) of <0.05% w/w ▪ Following the investigation, clean fill from within the NSRU site was used as a capping layer and ranged from 150 to 500 mm in thickness ▪ No marker layer was installed to separate the clean fill and underlying contaminated fill material ▪ The depth of the asbestos impacted material is not identified within the report ▪ Major works that are likely to penetrate the capping layer must have exposure to asbestos included within their SWMS ▪ A licenced asbestos removal contractor must be engaged to control any asbestos risks associated with intrusive works within the batter ▪ A qualified occupational hygienist is recommended to be engaged during any intrusive works occurring within the batter	

Table 8: Review summary of GHD 2010

Document Title:	Report for Sydney Metro Network Stage 2 (Central to Westmead) Geotechnical Interpretive Report: Part II Contamination
Prepared by:	GHD
Dated:	12 February 2010
Key Objectives:	
Provide an assessment of available soil and groundwater data at nominated locations along the Sydney Metro Network (SMN) Stage 2 alignment and whether the presence of contamination could impact the construction or operation of the SMN Stage 2 rail system	

Key Findings:
▪ North Strathfield Station is proposed to be installed as a 'cut and cover' station and construction will intersect fill material, residual soil and Ashfield shale ▪ Packer test data for BH3103_133 indicate permeabilities between 0.36 and 0.0021 m/day with the highest permeability observed at a depth of between 6 and 12 mbgl within Ashfield Shale, indicating a more transmissive zone at this depth ▪ Preliminary soil contamination results for BH3103_133 reported concentrations of benzo(a)pyrene above the adopted assessment criteria at 0.15 to 0.25 m, indicating minor contamination in near surface fill material.   ▪ Epic notes these concentrations may not be representative of current onsite fill materials due to the movement of materials as part of the construction of the asbestos containment cells in 2015 ▪ Groundwater analytical results for the shallow and deep monitoring wells at location BH3103_133a and BH3103_133, respectively, indicate contaminant levels below the adopted screening values, apart from ammonia and zinc which exceeded drinking water criteria in shallow groundwater (BH3103_133A), and C_{10}-C_{36} and toluene above the practical quantitation limit in shallow and deep groundwater samples. ▪ As groundwater ingestion is not a valid exposure pathway, no significant contamination risk is anticipated for the construction or operation of the station. However, the C10-C36 and toluene concentrations may indicate the presence of an unknown source of impact in the vicinity of BH3103_133.

Table 9: Review summary of Jacobs 2020a

Document Title:	Metro West Stage 1 Technical Paper 8: Contamination
Prepared by:	Jacobs
Dated:	April 2020
Key Objectives:	
This technical paper is one of several technical papers that form part of the Environmental Impact Statement. The purpose of this technical paper is to identify and assess the potential human and ecological health impacts from contamination to the construction of Stage 1	
Key Findings:	
▪ An inferred dyke comes in close proximity to the tunnel alignment to the south of North Strathfield Station construction site. It is possible that unidentified dykes/dyke could be encountered during excavation. It is also possible that rock permeability in the vicinity of these (potential) dykes/dyke swarms could be higher than elsewhere. ▪ Some groundwater contamination sources could be in the vicinity of Stage 1 but likely to be limited in extent. Contaminated groundwater may intersect Stage 1, and the exposure pathways for human or ecological receptors could be present and fully reached during construction. ▪ Potential migration of contaminated groundwater towards, and into, station excavation, poses a potential exposure risk to site users/workers and adjacent site users, and could potentially reduce the beneficial use of the aquifer ▪ Soils within / beneath the construction site and above the alignment have been assigned a very low to moderate potential contamination impact associated with the current and historical activities carried out on and/or adjacent to the site, including residuals from historical and current railway use, the operation of a funeral home, the operation of a dry cleaners, the possible inappropriate management (during demolition) and/or degradation of hazardous building materials, and the historical commercial/industrial land use within the locality	

Table 10: Review summary of Jacobs 2020b

Document Title:	Tender Advice Note (TAN)

Prepared by:	Jacobs
Dated:	18 December 2020
Key Objectives:	
The purpose of this TAN is to review the indicative contamination status of the alignment key site(s) (stations, shaft and tunnels) and adjacent areas to identify associated risks and propose management measures based on a high-level review of the available information.	
Key Findings:	

- Soils within the North Strathfield site were assigned a high potential for contamination impact associated with the current and historical activities carried out on and/or adjacent to the site, including the presence of asbestos containment cell and potential firefighting activities adjacent to the site.
- Historical aerial photography identifies the proposed station site comprised vacant land since the 1950s. The land use has remained largely unchanged with the development of a number of small buildings and structures in the 1980s and 1990s.
- Land use surrounding the construction site since the 1950s include low density residential development, commercial and industrial premises, and the existing North Strathfield Station. Key developments in the surrounding area since the 1950s include the demolition of large commercial and industrial buildings to the west of the construction site in the 1980s, and development of medium density residential premises in the late 1990s and early 2000s.
- During works completed by the North Strathfield Underpass Alliance prior to 2015, a battered area located in the North Strathfield station box footprint, was observed to comprise reworked fill and contain bonded asbestos above commercial/industrial criteria (0.05% w/w). As discussed in **Table 9**, the material was capped with a minimum of 150 mm clean topsoil with no marker layer.
- The depth of fill is estimated to be approximately 3 m
- Groundwater data was limited to one bore (SMW_BH073) in the southern extent of the station footprint. Iron and manganese were reported above recreational / direct contact assessment criteria
- Groundwater and vapour risks were considered a data gap and further investigation was recommended

3.3 CONTAMINATED LAND RECORDS

3.3.1 NSW EPA CLM Act Register of Notified Sites

A review of the NSW EPA list of notified sites indicated the site has not been notified to the EPA as a potentially contaminated site. Sites within 1.0 km that have been notified to the EPA due to potential contamination include the Budget service station located approximately 350 m southeast, the former Caltex service station located 480 m to the southeast and the Ampol service station located 880 m to the south. All sites are listed as “Regulation under CLM Act not required”.

3.3.2 NSW EPA CLM Act Records of Notices

The site is not listed on the NSW EPA Contaminated Land Record of Notices. No sites within 1.0 km of the site were identified on the NSW EPA Contaminated Land Record of Notices.

3.3.3 Protection of Environment Operations Act 1997 Public Register

A search of Environment Protection Licences (EPL) issued under the *Protection of the Environment Operations Act 1997* (POEO) indicated 21 POEO notices in North Strathfield for the main north line corridor (11 km section between Parramatta Road and Homebush Bay Drive).

Table 11: POEO licences and notices

Name	Location	Distance	Activity	Status
John Holland Pty Ltd	Main North Line Corridor – 11km section located between Parramatta Road and Homebush Bay Drive, North Strathfield, NSW 2137	Rail corridor adjacent to the west	Land-based extractive activity and railway systems activities	Surrendered 19 August 2015
Sydney Water Corporation	Main North Line Corridor – 11km section located between Parramatta Road and Homebush Bay Drive, North Strathfield, NSW 2137	Rail corridor adjacent to the west	Penalty Notice: Pollute waters – Corporation	Issued 8 May 2014

Sites within 1.0 km issued with a POEO licence or clean up notice are summarised below.

Table 12: POEO licences and notices

Name	Location	Distance	Activity	Status
Ausgrid Operator Partnership	25-27 Pomeroy Street, Homebush NSW	510 m west	Waste Storage – hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Current, licence review 15 Jan 2025

3.3.4 NSW EPA PFAS Investigation Program

Review of the EPA per and poly-fluoroalkyl substances (PFAS) Investigation Program, indicated that no sites currently under investigation are within 5 km of the site.

Additionally, there are no activities associated with point sources of PFAS contamination as listed in the PFAS NEMP (HEPA, 2020) that were identified on or adjacent to the site with the exception of the Sydney Trains firefighting foam deluge system.

3.4 DEFENCE UXO DATABASE SEARCH

A search of the Department of Defence's Unexploded Ordnance Database (UXO) was undertaken on 9 December 2021. A search of the lot and plan numbers indicated that the site is not located within a UXO impacted area.

4 PRELIMINARY CONCEPTUAL SITE MODEL

To assess the risk from land contamination and subsequent suitability of the site for the proposed use, an understanding of the receptor groups that interact with the land is required. Under the proposed commercial development and operation, the following receptor groups have been identified:

- Construction workers involved in site construction including above and below ground workers
- General public and commercial workers using the site, following completion (operational phase)
- Workers during operation
- Trench workers that may need to access underground services.

Other receptors that require consideration to evaluate risks posed by site contamination but not site use suitability include:

- Neighbours – Commercial workers and general public
- Surface Waters – Infiltration to groundwater, aquatic ecosystem protection, recreational users
- Groundwater users – It is noted that groundwater use is likely to be limited as the site is located in a commercial area and there are no registered bores in the vicinity of the site

4.1 POTENTIAL CONTAMINATION SOURCES

Potential contamination sources identified at the site and associated contaminants of concern are described below in **Table 13**.

Table 13: Potential sources and contaminants of concern

Sources	Mechanism (i.e. top down, placement, aerial etc.)	Affected Environmental Media (i.e. soil, water, soil gas)	Contaminants of Potential Concern (CoPC)
Imported fill and earthworks and on-site containment cell	Placement	Soil	Asbestos, heavy metals, TRH, BTEXN, PAH, OCP, PCB, VOC
		Groundwater	Heavy metals, TRH, BTEXN, PAH, OCP, PCB, VOC
Onsite commercial/industrial land uses	Top down, placement, aerial, subsurface release	Soil, groundwater	Heavy metals, TRH, BTEX, PAHs, VOC, PCB, Asbestos
Building demolition	Placement, aerial	Soil	Asbestos, lead, PCB
Utilities upgrades / electrical substation	Placement	Soil	Asbestos, PCB
Offsite sources (funeral home, dry cleaners)	Lateral migration	Groundwater	Heavy metals, formaldehyde, VOCs (including perchloroethylene)
Offsite Sydney Trains firefighting foam deluge system	Lateral migration	Groundwater	PFAS

Notes: TRH: Total recoverable hydrocarbons; BTEXN: benzene, toluene, ethyl-benzene, xylenes & naphthalene, PAH: polycyclic aromatic hydrocarbons, OCP: organochlorine pesticides, PCB: polychlorinated biphenyls, VOC: volatile organic hydrocarbons

Assessment of potential soil vapour contamination will be undertaken initially via analysis of VOCs in soil and groundwater. If CoPC that may present a vapour risk are identified during the soil and groundwater investigation, further assessment will be undertaken in consultation with AFJV and the site auditor.

Targeted samples within the shaft excavations will be analysed for PFAS in accordance with the waste classification guidelines and the addendum to Part 1 (NSW EPA, 2014a). One groundwater sample from the existing monitoring well SMW_BH073 will be analysed for PFAS.

4.2 CONTAMINANT EXPOSURE PATHWAYS

The assessments indicate the following relevant contaminant exposure pathways:

- Direct contact with contaminated soils or groundwater (dermal, ingestion – construction workers and maintenance trench workers)
- Inhalation of contaminated dusts (construction and maintenance trench worker, neighbours)
- Inhalation of vapours (construction and maintenance trench worker, commercial workers, neighbours)
- Impact on terrestrial ecological receptors

As registered domestic bores were not identified within 500 m of the site, and the presence of reticulated water mains in the surrounding urban environment, consideration of domestic drinking water and irrigation uses have not been included.

4.3 CONCEPTUAL EXPOSURE MODEL

A pathway is a means by which contaminants can contact the identified receptors. Where no identified pathway is identified, it is incomplete and no risk of exposure to the receptor can occur.

The conceptual model in **Table 14** below, was prepared prior to the site investigation and considers an operating metro station (commercial centre).

Table 14: Preliminary conceptual site model

Relevant Exposure Pathways	Receptors			
	Onsite users	On site construction workers	Neighbouring site users	Other
Soil ingestion / dermal contact / dust	✓	✓	✓	Terrestrial ecology ✓
Indoor inhalation of vapours derived from soil	✓	✓	--	--

Relevant Exposure Pathways	Receptors			
	Onsite users	On site construction workers	Neighbouring site users	Other
Outdoor inhalation of vapours derived from soil	X	X	--	Maintenance Trench workers ✓
Indoor inhalation of vapours derived from groundwater	✓	✓	✓	--
Dermal contact and incidental ingestion of groundwater		✓		
Outdoor inhalation of vapours derived from groundwater	X[(a)]	X[(a)]	X[(a)]	Maintenance Trench workers ✓
Soils leaching to groundwater	--	--	--	Groundwater impact ✓
Groundwater discharge to surface water	--	--	Recreational users Homebush Bay ✓	Aquatic ecosystem ✓
Notes				
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway potentially complete and requires investigation -- Not relevant (a) Outdoor air dilution				

5 DATA QUALITY OBJECTIVES

A process for establishing data quality objectives for an investigation site has been defined in the ASC NEPM guideline on site characterisation (NEPC, 2013). The data quality objective (DQO) process was applied to the site investigation to ensure that data collection activities were appropriate and would achieve the project objectives as defined in **Section 1.1**. The DQO process includes seven steps as defined in the following sections.

5.1 STEP 1: STATE THE PROBLEM

Condition D71 of the Sydney Metro West – Concept and Stage 1 Conditions of Approval (2021) requires a DSI to be undertaken prior to commencement of construction in moderate to high risk contaminated areas.

5.2 STEP 2: IDENTIFY THE DECISION / GOAL OF THE STUDY

The decisions to be made based on the results of the DSI are as follows:

- Have previous site activities and surrounding land uses resulted in contamination of soil or groundwater at the site?
- What are the material classification categories and volumes for the soil units to be excavated, in accordance with the Sydney Metro Spoil Management Hierarchy?
- Do natural materials on the site which are to be excavated meet the definition of VENM?
- Will the site pose an unacceptable risk to onsite receptors, during construction?
- If contamination is identified at the site, with regard to site suitability for the proposed development

    - is further assessment required?
    - is the contamination able to be managed under a long term environmental management plan (LTEMP)?
    - will remediation of contamination be required at the site?

- Does contamination pose a risk to offsite human health and ecological receptors?

5.3 STEP 3: IDENTIFY THE INFORMATION INPUTS

The inputs required to make the above decisions are as follows:

- Identification of issues of potential environmental concern (history review and available information from government and environmental databases)

- Field observations indicating recent land-use areas of environmental concern (AECs) and the presence of aesthetic issues, including but not limited to odours, discolouration and presence of foreign materials and wastes
- Stratigraphic conditions recorded from intrusive investigations (boreholes) on the site
- Laboratory analysis from collected samples and analyses for concentrations of CoPC
- Screening sample analytical results against appropriate assessment criteria for the intended land use, including:

    - NEPM commercial / industrial land use criteria (HIL-D / HSL-D) will be adopted to assess whether the site is suitable for the proposed land use
    - Waste classification criteria (NSW EPA, 2014a) as well as applicable RRO assessment criteria (e.g. ENM)
    - The definition of VENM as provided in the Protection of the Environment (Operations) Act (1997), as 'natural material (such as clay, gravel, sand, soil or rock fines):

        - that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities and
        - that does not contain any sulfidic ores or soils or any other waste
        - and includes excavated natural material that meets such criteria for VENM as may be approved for the time being pursuant to an EPA Gazettal notice.'

- The lateral and vertical distribution of materials containing concentrations greater than the laboratory detection limits and/or adopted assessment criteria

5.4 STEP 4: DEFINE THE BOUNDARIES OF THE STUDY

The boundaries for the environmental assessment have been identified as follows:

- Spatial boundaries:

- Spatial boundaries will be limited to the boundary of the northern construction zone, defined in **Figure F2**. The depth boundary will be defined as the depth of investigation required to assess ground conditions at the site, comprising a maximum depth of 21 m for soil and 16 m for groundwater
- Temporal boundaries – the temporal boundary is limited to the data collected during this investigation and previous relevant investigations
- Constraints within the study boundaries – the following issues present limitations upon the sampling strategy for the site:
    - Structures (i.e. sheds, Sydney Trains infrastructure) that limit the movement of plant and restricts placement of investigation locations

- Subsurface structures or obstructions including existing underground services

5.5 STEP 5: DEVELOP A DECISION RULE

Results of soil and groundwater investigations will be compared against investigation and screening levels outlined in Schedule B1 of the ASC NEPM (NEPC, 2013) in consideration of current and proposed land uses, and potential risks to human health and the environment. Soil results will also be compared to waste classification criteria from NSW EPA (2014a). The decision rules for this DSI are presented in **Table 15.**

Table 15: Decision rules

Aspect – Soil exceedances – land use suitability
Detail – If contaminants are identified at concentrations greater than the adopted soil investigation screening levels
Mitigation; ▪ Further investigation to assess the volume and nature of impacted soils ▪ Statistical analysis and comparison against screening levels ▪ Onsite management and/or excavation and offsite disposal
Aspect – Soil exceedances – waste classification
Detail – If contaminants are identified at concentrations greater than the adopted waste classification screening levels
Mitigation; ▪ Statistical analysis and comparison against NSW EPA (2014) criteria ▪ Toxicity characteristic leaching procedure (TCLP) analysis of contaminants exceeding the contaminant threshold (CT) criteria ▪ Further investigation to assess the volume and nature of impacted soils
Aspect – Groundwater exceedances
Detail – If concentrations of contaminants are identified in groundwater which exceed the adopted groundwater investigation screening levels
Mitigation; ▪ Further investigation to delineate the extent of groundwater impact ▪ Statistical analysis and comparison against relevant criteria ▪ Onsite management and/or remediation
Aspect – Delineation of impacts
Detail – If impacts at the site cannot be adequately delineated
Mitigation: ▪ Additional investigation across the site ▪ Development and implementation of management measures, as required

5.6 STEP 6: SPECIFY LIMITS ON DECISION ERRORS

The potential decision errors for this DSI include:

- Assessment that the site is uncontaminated when it is OR is contaminated when it is not

- Assessment that soil or groundwater beneath the site requires management, when no management is required OR does not require management, when management is required

The acceptable limits on decision errors to be applied for the DSI and the manner of addressing possible decision errors have been developed based on the Data Quality Indicators (DQIs) of precision, accuracy, representativeness, comparability and completeness which are presented in the SAQP (Epic Environmental, 2022). The potential for significant decision errors are to be minimised by:

- Where appropriate, 95% Upper Confidence Limit (UCL) will be used for the assessment of analytical results
- Completing a robust Quality Assurance/Quality Control (QA/QC) assessment of the field and laboratory data and application of the probability that 95% of data will satisfy the DQIs
- Assessing whether appropriate sampling and analytical density for the purposes of the intrusive assessment has been applied
- Ensuring that the criteria set for the intrusive assessment are appropriate for the proposed use of the site
- Use of calibrated field equipment

5.7 STEP 7: OPTIMISE THE DESIGN FOR OBTAINING DATA

Based on the objectives of the DSI, the investigation program design is based on a systematic sampling pattern to characterise the site and identify/delineate potential risks. The field and laboratory methodologies applied during the DSI are documented in **Section 8**.

6 ASSESSMENT CRITERIA

The primary reference for environmental site assessment in Australia is the ASC NEPM 1999, amended 2013 (NEPC, 2013). This document includes soil, soil vapour and groundwater criteria for use in evaluating potential contamination risk to human health and the environment.

The application of these investigation levels and screening levels is subject to a range of limitations and their selection and use must be in the context of the conceptual site model (CSM) relating to the nature and distribution of impacts and potential exposure pathways. Each relevant guideline is discussed further below.

6.1 SOILS

Epic considers that the proposed land use as a metro station with commercial precinct, is most closely approximated to commercial/industrial land uses. For risk screening purposes concentrations in soils will be compared against Health Investigation Levels (HILs) and Health Screening Levels (HSLs) for commercial/industrial (HIL-D and HSL-D) from Schedule B1: 'Guideline on Investigation Levels' of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (ASC NEPM) (NEPC, 2013). Where NEPM criteria is not available for contaminants of concern, concentrations will be compared to the laboratory limit of reporting (LOR) or appropriate overseas guidance.

In accordance with the ASC NEPM, protection of the environment is also considered in this site assessment. Soil concentrations will be compared against Ecological Investigation levels (EILs) and Ecological Screening Levels (ESLs) for commercial/industrial land use. The guidance criteria used to establish the soil assessment criteria is summarised in **Table 16**.

Table 16: Adopted soil assessment criteria (SAC)

Potential Contaminant of Concern	Potential Receptor	Guideline Source
Metals, Polycyclic Aromatic Hydrocarbons (PAH), Organochlorine Pesticides (OCP), Phenols	Human Health	ASC NEPM, Health Investigation Level (HIL) – Commercial/Industrial
	Ecological	ASC NEPM Environmental Investigation Level (EIL) – Commercial/Industrial exposure setting
Total Recoverable Hydrocarbons (TRH), Benzene/ Toluene/ Ethene/ Xylene/ Naphthalene (BTEXN)	Human Health	ASC NEPM, Health Screening Level (HSL) – Commercial/Industrial
	Ecological	ASC NEPM (2013) Environmental Screening Level (ESL) – Commercial/Industrial exposure setting
	Management Limits	ASC NEPM - Management limits for commercial/Industrial land uses
	Human Health	Friebel and Nadebaum (2014) Direct contact HSLs
Volatile Organic Compounds (VOC)	Human Health	Laboratory Limit of Reporting US EPA (2019) Regional Screening Levels (RSLs): Summary Table – Industrial Soil
Asbestos	Human Health	Presence / absence[1]

1. Asbestos assessment will be undertaken qualitatively to determine the presence or absence of gross asbestos contamination. Quantitative NEPM criteria is not applicable as part of this assessment.

For human health and ecological risk assessment, a Tier 1 level assessment as defined by the ASC NEPM is undertaken. This involves the comparison of analytical results with the adopted investigation and screening levels. Where exceedances are identified, further assessment may be required to better understand and characterise the actual risks to the identified receptors.

ASC NEPM guidance provide Tier 1 investigation levels for human health risk assessment via the direct exposure pathway for the contaminants being considered. ASC NEPM also provides screening levels for the vapour inhalation pathway for volatile hydrocarbons (light end TRH and BTEXN) as a function of depth. Where petroleum hydrocarbon impact is present, additional trigger levels are provided for management actions (i.e., Management Limits). The management trigger levels are concentrations at which hydrocarbon impacted soil should not:

- Form observable light non- aqueous phase liquids (LNAPLs)
- Be a fire or explosive hazard, or
- Have deleterious effects on buried infrastructure (e.g. penetration or damage of underground services and conduits)

NEPM (2013) also refers to direct contact HSLs developed by Friebel & Nadebaum (2015) for exposure through dermal contact, incidental oral ingestion and dust inhalation and combined into a single HSL for direct contact with soil. These levels are significantly higher than other soil screening levels.

Ecological risk assessment with respect to metals is complicated by the occurrence of natural background metals in the environment. Site specific EILs will be derived for soils for chromium, copper, nickel and zinc in accordance with the method described in Section 2.5.10 of Schedule B1: 'Guideline on Investigation Levels' of the ASC NEPM. The EIL derivation methodology considers the physiochemical properties of soil and background contaminant levels (i.e. the Added Contaminant Limit (ACL) above Ambient Background Levels (ABC)).

For PFAS compounds, the PFAS NEMP 2.0 (2020) has established human health and ecological guideline criteria based on the ASC NEPM methodology. A criteria of 0.14 mg/kg has been updated for indirect ecological exposure given the proposed development with minimal potential indirect ecological exposure pathways.

[5] Friebel, E & Nadebaum, P (2011), Summary: Health screening levels for petroleum hydrocarbons in soil and groundwater. CRC CARE Technical Report no. 10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia;

Where published Australian criteria or suitable international criteria are not available for target compounds, the level of reporting will be used as the tier 1 screening tool.

Where individual sample values exceed the adopted criteria, the site may still be considered suitable for the respective land use if the following conditions are met:

- The 95% upper confidence limit (UCL) value is less than the criteria from a suitable population of data targeting a sampled soil type
- The standard deviation of the data subset does not exceed 50% of the adopted land use criteria value, and
- The individual values are less than 250% of the adopted land use criteria

6.1.1 Waste Classification Assessment

The waste classification assessment will be undertaken by a third party consultant (ADE Consulting Group) as a project wide waste classification assessment.

The preliminary waste classification assessment will be undertaken with reference to the NSW EPA (2014) Waste Classification Guidelines - Part 1: Classifying Waste. The waste classification guidelines require an assessment of the following steps:

- Step 1: is the waste special waste?
- Step 2: is the waste liquid waste?
- Step 3: is the waste pre-classified?
- Step 4: does the waste possess hazardous characteristics?
- Step 5: determining a wastes classification using chemical assessment?
- Step 6: is the waste putrescible or non-putrescible?

Soils are then classed into the following categories based on the chemical contaminant criteria outlined in Table 1 and Table 2 of NSW EPA (2014a). The following criteria will be adopted and Toxicity Characteristic Leaching Potential (TCLP) analysis will be undertaken, where required.

- *General solid waste* (GSW) - If chemical concentrations is less than Contaminant Threshold (CT) 1 then can classify the soil as GSW. Additionally, if concentrations are greater than CT1, and TCLP is less than TCLP1 and chemical concentrations are less than Specific Chemical Concentration (SCC) 1 then also classify as GSW.
- *Restricted solid waste* (RSW) - If chemical concentrations is less than CT2 but greater than CT1 then can classify the soil as RSW. If TCLP is less than TCLP2 and chemical concentrations are less than SCC2 (but >SCC1) then classify as RSW.
- *Hazardous waste* (HW) – if chemical concentrations are above CT2 then preliminary classification is HW. If chemical concentrations are above SCC2 and/ or TCLP2 then classify as HW.

As per Addendum 1 of the waste classification guidelines (NSW EPA, 2016), PFAS needs to be considered as part of the waste classification process. As no potential sources of PFAS have been identified on the site, PFAS will be only considered for waste classification purposes. As such, the LOR in soil was raised to 5 µg/kg, as per the project requirements.

6.1.1.1 ENM Exemption

The ENM Exemption/Order applies to excavated natural material suitable for re-use offsite as engineering fill or in earthworks. ENM includes naturally occurring rock and soil that has:

- been excavated from the ground
- contains at least 98% (by weight) natural material
- does not meet the definition of Virgin Excavated Natural Material in the POEO Act 1997.

Excavated natural material does not include material located in a hotspot; that has been processed; or that contains asbestos, Acid Sulfate Soils (ASS), Potential Acid Sulfate soils (PASS) or sulfidic ores.

6.1.1.2 VENM Classification

With reference to Schedule 1 of the Protection of the Environment Operations (POEO) Act 1997, VENM is defined as *'natural material (such as clay, gravel, sand, soil or rock fines):*

(a) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities and

(b) that does not contain any sulfidic ores or soils or any other waste

and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA Gazettal notice.'

To determine whether the subject materials are suitable for classification as VENM, an assessment of the physical and chemical characteristics is required to be undertaken. The VENM assessment will be undertaken with reference to the POEO Act and NSW EPA endorsed guidelines.

6.2 GROUNDWATER

Groundwater investigation levels will be adopted in accordance with ASC NEPM guidance. The ASC NEPM Schedule B (6) 'Guideline on Risk Based Assessment of Groundwater Contamination' indicates that groundwater should be assessed on the basis of its environmental value and the risk that current (or realistic future) groundwater use may pose to human health and/ or the environment. Regarding

realistic future uses, consideration should be given to the quality and yield of the aquifer, the likely demand for water resources in the vicinity of the site, and technological practicalities.

In accordance with Schedule B(6), a beneficial use assessment (BUA) will be undertaken to assess both the current and potential future uses of groundwater within the uppermost aquifer beneath the site. The purpose of the BUA is to determine what groundwater uses need to be protected and to assess the risk(s) that contaminated groundwater may pose to human health and the environment.

The potential beneficial uses of groundwater include:

- Maintenance of nearby freshwater and marine ecosystems (Powells Creek and Homebush Bay)
- Construction uses including wheel wash for heavy plant and dust suppression
- Protection of human health in consideration of direct contact during construction and the dominant vapour inhalation exposure pathway for dissolved petroleum hydrocarbons from groundwater

Based on these identified beneficial uses, the groundwater quality of the site has been assessed using investigation levels from the following sources.

- Assessment of groundwater discharging to freshwater and marine ecosystems is based on Table 1(C) of Schedule B1 of the ASC NEPM, Groundwater Investigation Levels (GILs) for slightly to moderately disturbed systems, ANZG (2018) freshwater and marine ecosystem 95% level of species protection (LOSP) and PFAS NEMP 2.0
- Assessment of groundwater discharging to recreational water bodies and potential contact during construction, based on a threshold of 10 times the Australian Drinking Water Guideline (2011) criteria (as per ASC NEPM schedule B1)
- Assessment of groundwater with respect to the protection of human health in consideration of the dominant vapour inhalation exposure pathway for petroleum hydrocarbons in groundwater is based on Table 1A(4), Schedule B1 of the ASC NEPM (Groundwater HSLs for vapour intrusion), assuming predominantly clay soils. HSLs for commercial/industrial land uses have been adopted (HSL-D).

7 SAMPLING AND ANALYSIS PLAN

Epic conducted intrusive investigations at the site from 1-4 February 2022. The field investigations were completed by experienced Epic environmental scientists Todd O'Brien and Jayden Pan.

7.1 SOILS

The soil sampling program was aimed at identifying areas of soil contamination and potential risks to receptors as outlined in the preliminary CSM (**Section 4**) by using a systematic soil sampling pattern. The sampling location plan is included on **Figure F2**.

Sampling was not completed in the southern construction zone following discussion with AFJV and the Site Auditor due to the lack of intrusive works required in this area and the significant amount of underground services leading to inability to achieve suitable drilling locations. Contamination at this location has been characterised by ADE (2015) and is currently managed under a passive Environmental Management Plan.

Epic considers the sampling locations sufficient to achieve the objectives of the DSI.

7.2 GROUNDWATER

The groundwater monitoring program was aimed at identifying potential impacts to groundwater at the site from on site and surrounding activities. Selected groundwater locations were chosen to enable characterisation of groundwater conditions entering and exiting the site. It is noted that the selected groundwater wells were installed by other firms under the direction of Sydney Metro West. The purpose of the wells is expected to have been for initial screening of contaminants, and to obtain hydrogeological data to inform construction dewatering. Subject to investigation of their current condition, the wells would be considered suitable for providing representative groundwater data for this DSI.

As shown in **Figure F2**, groundwater monitoring well (GWMW) SMW_BH009 is located on Queen Street adjacent to the east of the southern construction zone, GWMW SMW_BH073 is located on pavement adjacent to the eastern footbridge for North Strathfield Station, and GWMW SMW_BH711 is located in the centre of the proposed station box excavation. A summary of the existing groundwater wells is included in **Table 17** and documentation for SMW_BH082 is included in **Appendix E**. No borehole log or historical analytical data was available for SMW_BH073.

Table 17: Summary of existing groundwater wells

Well ID	Location	TOC Elevation (mAHD)	Date Completed	Completed By	Total Well Depth (mbgl)	Screened Interval (mbgl)	Standing Water Level* (mBTOC)
SMW_BH009 (MW01)	Queen Street adjacent southern work zone	18.60	7/09/2018	Golder Douglas Partners	5.0		3.71
SMW_BH073 (MW02)	Footpath adjacent station footbridge	18.93	17/04/2019	Golder Douglas Partners	19.30	10.2 – 13.2	10.53
SMW_BH711 (MW03)	Centre of station box excavation	15.15	10/13/2020	Golder Douglas Partners	6.86*		6.16

Note: *as measured on 2 February 2022 by Epic

Each GWMW was inspected prior to sampling and was deemed suitable as based on the total depth, good well head condition (i.e. no cracks in the PVC, the well plug seals, and no build-up of silt/ soil within the wells) and surrounding potential sources of contamination.

Epic considers that the total well depth of between 5 and 16 m is suitable as based on the geology and groundwater encountered during the soil investigation. Although the wells may be screened at variable depths, as based on the geology, it is considered the groundwater within the clay and weathered shale will likely be interconnected and therefore the groundwater samples will be representative of shallow groundwater quality at the site. Further details are included in **Section 9.1**.

Based on the historical use of the site and as discussed within the preliminary CSM (**Section 4**), limited sources of contamination are present on and surrounding the site. The primary sources of contamination onsite are the presence of fill and existing structures. Existing structures and fill primarily present the risk of hazardous materials (i.e. heavy metals and asbestos) which present a low risk to groundwater.

The existing GWMWs are considered to be suitable to advise on the groundwater quality which will likely be encountered by workers during construction works, as well as provide information to inform risks in relation to future site use.

Epic notes that the water quality assessment for construction dewatering and discharge are being undertaken by ERM as a project wide hydrogeological investigation.

7.3 SAMPLING PLAN SUMMARY

A summary of the investigation and analysis undertaken is detailed in **Table 18**.

Table 18: Sampling and analysis plan

Environmental Media	Sample Design	Rationale	Sample Location ID	Target depth	Analytes	Date
Soil	Northern zone – A systematic sampling plan was completed (minimum 18 locations required)	Outdoor areas surrounding the shaft excavation for site suitability	BH11, BH12	1.0 m	TRH BTEXN PAHs Heavy metals Asbestos PCBs OCP/OPP VOCs PFAS	1 – 4 February 2022
		Within the shaft excavation footprint to assess the materials classification for disposal and/or reuse	BH03-BH10,	1.0 m		
			BH13- BH19	6.0 m		
			BH20	21 m		
Soil (waste classification)	TCLP analysis for samples exceeding GSW criteria	Facilitate classification as GSW	BH01, BH02, BH03, BH08, BH10, BH23	--	Benzo(a)pyrene TCLP	--
Groundwater	Collection of groundwater samples from existing wells SMW_BH009, SMW_BH073 and SMW_BH711	Identify groundwater quality and advise on site suitability	MW01 (SMW_BH009), MW02 (SMW_BH073) and MW03 (SMW_BH711)		TRH BTEXN Heavy metals PCBs VOCs PFAS General water suite*	2 February 2022

Notes: PFAS and TCLP analysis undertaken on samples from within the shaft excavation only
General water suite: Ca, Mg, Na, K, pH, EC, Cl, SO4, alkalinity, fluoride, hardness and total dissolved solids

7.3.1 Laboratory Analytical Program

Laboratory analysis was completed by Envirolab, a NATA accredited laboratory. A summary of the soil analytical schedule is provided in **Table 19**, and the groundwater analytical schedule is provided in **Table 20**.

Table 19: Soil Analytical Program

Analysis	Number of Samples (including duplicate samples)
Heavy metals, PAH	47
TRH, BTEXN	29
PCBs	9
Phenols	8
VOCs	9
OCP/OPP	10
Asbestos	16
CEC, pH	2

Additionally, the waste classification assessment included two samples per shaft excavation (total of four samples) for PFAS analysis, four samples for the ENM suite, and seven samples for TCLP (three for lead and four for benzo(a)pyrene).

Table 20: Groundwater Analytical Program

Analysis	Number of Samples (including duplicate samples)
TRH,	4
BTEXN	4
heavy metals	4
PAH	4

Analysis	Number of Samples (including duplicate samples)
VOCs	3
OCP/OPP	3
General water suite	3
Formaldehyde	3
PFAS	1

7.4 QUALITY ASSURANCE

The field and laboratory quality assurance and quality control plan adopted for the assessment was designed to achieve pre-determined data quality objective that are assessed with respect to Data Quality Indicators (DQIs) to demonstrate the precision, accuracy, representativeness, completeness and comparability of the data set and that the data set is of acceptable quality to meet the objectives of the assessment.

All fieldwork was conducted with reference to the relevant ASC NEPM (NEPC, 2013), PFAS NEMP 2.0 (HEPA, 2020) guidelines and Epic's Standard Field Operating Procedures, which allowed all samples to be collected by a set of uniform and systematic methods, as required by Epic's QA system.

Field QA samples collected are summarised in **Table 21**.

Table 21: Field QA Sampling

Sample ID	Sample Type	Sample Matrix	Rate of Collection
QC01, QC03, QC05	Intra-laboratory duplicate	Soil	1 in 13 samples
QC02, QC04, QC06	Inter-laboratory duplicate	Soil	1 in 13 samples
WQC01	Intra-laboratory duplicate	Water	1 in 3 samples
TS01, TS03	Trip spike	Soil	1 per laboratory batch
TS01W	Trip spike	Water	1 per laboratory batch
TB01W	Trip blank	Water	1 per laboratory batch
RB01 – RB03, RB01W	Rinsate	Water	1 per day of sampling

Note – Rate of QC sample collection specified as 1 in 20 samples in AS4482.1

8 INVESTIGATION METHODOLOGIES

A total of 18 locations were completed between 1-4 February 2022. The groundwater sampling was completed on 2 February 2022.

8.1 SOIL SAMPLING METHODOLOGY

Prior to the investigation, a ground disturbance permit was issued by AFJV. The permit was reviewed and signed by the relevant contractors prior to commencing intrusive works.

The sampling methodology adopted for the soil investigation is detailed in the SAQP (Epic Environmental, 2022) and is summarised in **Table 22** below.

Table 22: Soil investigation methodology

Action	Description
Service location	A dial before you dig (DBYD) search was conducted prior to the site works being undertaken. Epic engaged a DBYD accredited service locator (SmartScan) prior to works commencing, to complete underground service locating at the site and to clear each proposed borehole location prior to drilling. Each location was cleared using radio detection electromagnetic locators/transmitters and ground penetrating radar (GPR), where possible.
Non-destructive digging	Non-destructive digging (NDD) (utilising wet vacuum excavation) was completed at all locations to a minimum depth of 1.5 m to clear for underground services.
Intrusive drilling	Where NDD was undertaken, grab samples were collected at targeted depths (approximately 0-0.3 m, 0.4-0.6 m, and 1.0-1.2 m) using a hand auger. Boreholes requiring advancement further than the NDD, were advanced using a track mounted Geoprobe drilling rig utilising solid flight auger drilling methods. Due to the presence of significant ballast and coarse gravels, push tube drilling was unable to be completed.
Airborne asbestos monitoring	Daily airborne asbestos monitoring was completed by Epic during intrusive drilling within the asbestos containment cell. Air monitors were calibrated at flows between 1.0-2.0 L/min to ensure a minimum for 400 L was obtained during each sampling period. The monitors were placed at respirable height (1.2-1.8 m) along the site perimeter at nominal north, south, east and west locations. The airborne asbestos monitoring did not identify concentrations of asbestos fibres at or above the laboratory reporting limit of 0.01 fibres/mL. Laboratory certificates are included in **Appendix G.**
Logging	Logging of the boreholes was conducted in general accordance with the Unified Soil Classification System and AS 1726-1993. The soil profile logged and the following information was recorded in the field: soil/rock type, colour, grain size, sorting, inclusions, moisture conditions, staining and observation of any anthropogenic material (i.e. odours, waste materials). Soils were placed in a zip lock bag for field screening for volatile compounds using a photo-ionisation Detector (PID) which with the results recorded in the field. Equipment calibration certificates are included in Appendix D**.** Descriptions were recorded on Epic's standard field log sheets for uniformity in descriptions, presentation and to aid in future interpretations. The completed borehole logs are included in Appendix E**.**
Soil sampling intervals	Samples were generally collected from each borehole from the surface between 0.0-0.2 m, subsurface approximately 0.5 m, and 1.0 m depths or where visual and/or olfactory indicators of contamination were observed or as indicated by PID results.

Action	Description
Sample collection	Samples of the soil material were collected from the extracted soil core at sampling intervals nominated on the borelogs using nitrile gloves. Soil samples were collected in laboratory supplied 250 mL glass jars with Teflon-lined lids for chemical analysis and into zip lock sealed bags for asbestos analysis. Samples within the shaft excavation were also collected in 125 mL high-density polyethylene (HDPE) jars for PFAS analysis. Samples were labelled and immediately stored on ice for transport to the NATA accredited laboratory (Envirolab (primary) or Eurofins (Secondary)).
Borehole reinstatement	Following completion of drilling and soil sampling, boreholes were reinstated by backfilling with recovered material and reinstated with original surface material. The ground surface was inspected by Epic's field consultant to ensure the ground surface was clear of asbestos containing materials.
Field QA/QC	Field duplicates for soil samples were prepared in the field by collecting a blind sample from the same depth. Samples were not mixed or homogenised during collection or splitting.
Sample Labelling, Storage and Transport	All samples were clearly labelled with unique sample identification numbers consisting of the date, sample location with the prefix 'Epic-NS-', depth of sample and sampler's initials. All samples were kept chilled in an ice-filled Esky prior to dispatch and during transport to the primary laboratory under chain-of-custody (COC) procedures.
Cross contamination	Minimal equipment was used between sample points during this investigation. To minimise the potential of cross contamination samples were collected from the single-use plastic sleeve of the push tube using disposable nitrile gloves, changed between the collection of each sample. Where the hand auger was used for sampling, the equipment was decontaminated as per the procedures define in **Section 8.3**.

8.2 GROUNDWATER SAMPLING METHODOLOGY

Inspection of the existing GWMWs was undertaken during the first phase of drilling to advise on the suitability of each well. Each well was inspected and gauged to determine standing water levels (SWL) with a water level interface probe. Each well was considered suitable for sampling to achieve the objectives of the investigation.

Prior to sampling, depth measurements to the SWL and total well depth were referenced to the top of well casing as an established datum and were recorded to the nearest millimetre. Groundwater samples were collected by dedicating HDPE tubing into each well. The HDPE tubing was connected to disposable silicon tubing run through a peristaltic pump (MW01 and MW03) or LDPE disposable bladder in a bladder pump (MW02). The base of the tubing was placed within the screen interval and the pump was set to low flow rates to reduce sample turbidity and optimise laminar flow during sampling. During well purging, water parameters including pH, dissolved oxygen (DO), electrical conductivity (EC), oxidation reduction potential (ORP) and temperature were measured using a calibrated water quality meter (In-Situ SmarTROLL). Calibration certificates are included in **Appendix D** and groundwater sampling sheets are included in **Appendix F**.

Groundwater samples were collected when water quality parameters and the SWL stabilised. Where the stabilisation of head elevation was unable to be achieved due to low groundwater recharge (MW02), groundwater samples were collected upon stabilisation of water quality parameters. Groundwater samples were collected in laboratory prepared bottles and vials, labelled and placed on ice in an esky and transported under chain of custody to Envirolab for analysis of the COPC.

8.3 QUALITY CONTROL PROCEDURES

A new pair of disposable gloves was worn for the collection of each sample. Any reusable equipment used during sampling (e.g. hand auger, oil/water interface probe) was decontaminated by scrubbing with a plastic brush with a solution of Liquinox and deionised water and rinsing with clean water. The items were then rinsed in distilled or de-ionised water.

The laboratory internal QC procedures are consistent with NEPM policy on laboratory analysis of contaminated soils.

9 ENVIRONMENTAL ASSESSMENT

This section presents the results of the soil and groundwater field observations, sampling and laboratory analysis. Field observations are provided in **Section 9.1**, with analytical results from sampling provided in **Section 9.1.3**.

9.1 SOIL ASSESSMENT

The following observations were made during the intrusive drilling and soil sampling.

9.1.1 Geology

The general lithology across the investigation area was consistent with geological mapping and comprised fill overlying natural clays (**Plate P7**) and Ashfield shale. Soil borehole logs are presented in **Appendix F**.

Three locations were terminated due to refusal of the NDD and hand auger on ballast, with the remaining locations terminated at the targeted depths.

Fill material

Fill material was generally identified as grey and brown clay/gravel mixtures with trace construction and demolition waste to a maximum depth of 5.9 mbgl (**Plate P8**). Anthropogenic material in fill included scrap metal, concrete, geofabric, brick and timber. ACM was not identified during the intrusive investigation.

Odours or staining were not observed in fill material. The maximum PID detection was 27.5 ppm at BH03 0.1 mbgl. All remaining PID results were less than 1.0 ppm.

Natural clays

Natural clay was identified in eight locations and consisted of grey and brown firm to very stiff clay with trace gravels. The natural clay stratigraphy was encountered at depths between 0.9 to 6.0 mbgl (**Plate P9**).

Ashfield shale

One location (BH20) identified Ashfield Shale which was recovered as brown to dark grey weathered to hard shale, ranging in depth from 6.0 to >21 mbgl (maximum depth of investigation) (**Plate P10**). Drilling identified interbedded soft and hard bands which indicates potential interbedded sandstone or clay

lenses (as per geological mapping and surrounding geotechnical boreholes). However, sandstone was not identified during drilling.

9.1.2 Soil Analytical Results

Soil analytical results are presented in **Table T1** and are summarised in **Table 23** below. Laboratory reports are presented in **Appendix G**.

Table 23: Soil laboratory results summary

Analyte	Summary of Results
TRH	All samples analysed reported concentrations less than the assessment criteria.
BTEXN	All samples analysed reported concentrations less than the assessment criteria.
Metals (As, Be, Cd, Cr, Cu, Ni, Pb, Zn)	All samples analysed reported concentrations less than the assessment criteria.
PAH	All samples analysed reported concentrations less than the assessment criteria.
PCBs	All samples analysed reported concentrations less than the laboratory LOR.
VOCs	All samples analysed reported concentrations less than the assessment criteria.
OCP/OPP	All samples analysed reported concentrations less than the assessment criteria.
PFAS	All samples analysed reported concentrations less than the assessment criteria.
Asbestos	16 soil samples were analysed for the presence of asbestos with no detections of asbestos noted.

9.1.3 Waste Classification Analytical Results

At request of AFJV, a summary of the results for waste classification is not included in this report.

9.2 SOUTHERN AREA CAP ASSESSMENT

Intrusive soil sampling was not completed in the southern construction zone following discussion with AFJV and the Site Auditor due to the lack of intrusive works required in this area and the significant amount of underground services leading to inability to achieve suitable drilling locations. Contamination at this location has been characterised by ADE (2015) and is currently managed under a passive Environmental Management Plan.

Epic completed a site walkover to confirm the site condition and whether potential contaminant exposure pathways existed. Epic noted the following:

- The site was completely sealed with bitumen surface covering or concrete hardstand/drainage
- The hardstand seal was in good condition in all locations inspected, with no defects, cracks or weathering
- Indications of the asbestos capping materials such as DGB or geotextile fabric were not observed

- A significant amount of underground services are located within the construction area, including stormwater, power, water and communications.

9.3 GROUNDWATER ASSESSMENT

Groundwater was identified in one location (BH20) during the intrusive drilling investigation. The water strike at BH20 was at approximately 17.0 mbgl within the Ashfield shale. While perched groundwater was not identified during the intrusive drilling, it is inferred that perching would occur at the clay/shale interface following periods of heavy rainfall.

The existing GWMW are considered suitable for assessing the groundwater quality underlying the site.

9.3.1 Hydrogeology

Standing water levels were gauged in each existing GWMW using an interface probe prior to sampling. Standing water levels were measured with reference to the top of casing at each well.

Monitoring well gauging results are summarised in **Table 24**, and field parameters and water quality observations are summarised in **Table 25**. Groundwater sampling sheets are included in **Appendix F** and equipment calibration certificates are included in **Appendix D**.

Table 24: Monitoring Well Gauging Results

Well ID	Well depth (mBTOC)	SWL (mBTOC) 02/02/2022
MW01/SMW_BH009s	4.90	3.71
MW02/SMW_BH073	16.34	10.53
MW03/SMW_BH711s	6.86	6.16

Table 25: Water Quality Characteristics

Parameter	MW01/SMW_BH009s	MW02/SMW_BH073	MW03/SMW_BH711s
Electrical Conductivity (µS/cm)	1014	4770	6507
pH	6.58	6.18	5.43
Redox (mV)	63.5	31.2	141
Dissolved Oxygen (ppm)*	1.11	1.36	-
Observations	No odours or sheen Medium turbidity, pale brown	No odours or sheen Some iron precipitants during purging. Purged clear	No odours or sheen Clear

In general, the groundwater encountered onsite was observed to be slightly acidic (pH 5.43 – 6.58) and brackish water (1,014 – 6,507 µS/cm).

9.3.2 Phase Separated Hydrocarbons

Phase separated hydrocarbons (PSH) were not observed during the sampling of groundwater.

9.3.3 Groundwater Analytical Results

Groundwater analytical results are presented in **Table T3** and are summarised in **Table 26** below. Laboratory reports are presented in **Appendix G**.

Table 26: Groundwater laboratory results summary

Analyte	Summary of Results
TRH	All samples analysed reported concentrations less than the laboratory LOR.
BTEXN	All samples analysed reported concentrations less than the laboratory LOR.
Metals (As, Be, Cd, Cr, Cu, Ni, Pb, Zn)	All three locations reported concentrations of copper and zinc above the marine water 95% species protection. One location (MW03/SMW_BH711s) reported concentrations of nickel above the marine water 95% species protection.
PCBs	All samples analysed reported concentrations less than the laboratory LOR.
VOCs	All samples analysed reported concentrations less than the laboratory LOR.
PFAS	The single sample analysed reported concentrations less than the laboratory LOR.

9.4 QUALITY ASSURANCE / QUALITY CONTROL ASSESSMENT

Epic accepts the integrity of the analytical data. A review of the investigation's quality procedures is presented in **Appendix C**.

10 DISCUSSION

The intrusive investigation completed at the site did not identify elevated concentrations of contaminants in soil or groundwater. Volatile organic compounds or indicators of potential soil vapour contamination were not identified during the assessment. It is noted that previous reports indicate asbestos contamination is present within the northern and southern construction zones, however this was not detected during the intrusive drilling in the northern construction zone.

10.1 SOILS

The fill depth in the northern construction zone was assessed, with fill recovered as brown/grey clay gravel mix to a maximum depth of 6.0 mbgl. Anthropogenic material in fill included scrap metal, concrete, geofabric, brick and timber. ACM was not identified during the intrusive borehole investigation within the northern construction zone.

Three locations within the station box footprint (BH07, BH10 and BH12) were terminated prior to the target depth of 1.0 mbgl due to NDD and hand auger refusal on the coarse gravel and ballast. Based on the site's history and homogeneous character of the gravel fill at the site, it is envisaged that the fill in these areas will be consistent with the rest of the northern construction zone. Further investigation is not deemed necessary.

The samples collected from the northern construction zone, reported concentrations all below the human health assessment criteria.

10.2 GROUNDWATER

Groundwater analytical results were reported below the adopted assessment criteria with the exception of nickel, copper and zinc concentrations reported above the adopted assessment criteria for marine water. An exceedance of the assessment criteria does not imply an environmental impact is occurring or remediation is necessary, it implies further assessment may be warranted to assess the environmental risk. Given the low levels detected (concentrations within the same order of magnitude as the criteria) and the absence of a heavy metals source on the site, Epic considers the dissolved metals indicative of background levels and does not warrant further investigation.

Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health, including vapour intrusion, and does not preclude the site from commercial/industrial land use.

10.3 REVISED CONCEPTUAL SITE MODEL

A summary of the revised CSM for the site is presented in **Table 27** and conceptual diagram is presented in **Figure F3**. It is noted that depths of the southern construction zone encapsulation cell are not included in ADE (2015). Depth of the containment cell in **Figure F3** has been inferred from the volume of contained soils (1,000 m^3), and surface area of the encapsulation zone (approximately 900 m^2).

Table 27: Revised conceptual site model

Relevant Exposure Pathways	Receptors			
	Onsite users	Onite construction workers	Neighbouring site users	Other
Soil ingestion / dermal contact / dust	X	X	X	Terrestrial ecology X[(a)]
Indoor inhalation of vapours derived from soil	X	X	--	--
Outdoor inhalation of vapours derived from soil	X	X	--	Trench workers X
Indoor inhalation of vapours derived from groundwater	X	X	X	--
Outdoor inhalation of vapours derived from groundwater	X[(b)]	X[(b)]	X[(b)]	Trench workers X
Soils leaching to groundwater	--	--	--	Groundwater impact X
Groundwater discharge to surface water	--	--	Recreational users of Parramatta River X	Aquatic ecosystem X
Notes				
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway potentially complete and requires investigation -- Not relevant (a) Surface seal prevents soil exposure (b) Outdoor air dilution				

There were no complete exposure pathways for the proposed Strathfield station development identified.

10.4 DATA GAPS AND UNCERTAINTY

Based on the investigation undertaken the following data gaps and uncertainties should be considered:

- Chemical characterisation of the southern construction zone is approximately seven years in age. While the data is not contemporaneous, given the lack of intrusive construction and additional exposure pathways introduced in this area further assessment is not recommended.
- The final site layout and southern construction zone layout have not been confirmed. If the final site layout is changed significantly, or intrusive construction is required in the southern construction zone further assessment may be required.

- Samples were unable to be collected via direct push in the northern construction area due to the significant amount of ballast within the fill stratigraphy. It is noted that sampling for volatile compounds via solid flight auger is not recommended.
- The borehole log provided for SMWBH073 indicates a total well depth of 19.3 mbgl, however gauging by Epic indicated a depth of 16.3 mbgl. It appears that there is a transcription error in the previous borelog, however, given the physical and groundwater chemistry data encountered during low flow sampling the screened interval of the well appears suitable for providing representative groundwater results.
- Previous reports indicate that the northern construction area contained ACM. ACM was not identified during the intrusive sampling, however, it is noted that WA DoH (2021) recommends visually investigating the presence of ACM via testpits or trenches. Boreholes were chosen instead of testpits during this investigation to minimise disturbance of the encapsulation cell and compromise of the cell integrity.
- It is noted that eighteen borehole locations were installed in the northern construction zone on a systematic basis and that apart from one borehole location (BH11), the locations were within the proposed station box area. While this is consistent with the SAQP and the preliminary CSM, it exceeds the planned number of boreholes (16). It is noted that while only one of the systematic locations was outside of the station box area (in an area where soils may be retained onsite), the systematic approach provides adequate confidence for characterisation of soils over the northern construction zone.
- Boreholes were generally extended to planned target depths, ranging from 1.0 mbgl to 21 mbgl. However, shallow refusal was encountered at BH07 at 0.1 mbgl, BH10 at 0.5 mbgl and BH19 at 0.3 mbgl. While full characterisation of the soil profile at these locations could not be completed, sufficient boreholes were completed to target depths within fill and natural clay/ shale to meet the assessment objective over the site. However, refusal of BH19 at 0.3 mbgl on a concrete slab presents uncertainty regarding conditions at depth at this location.
- The NDD and solid flight auger drilling methods used in the investigation are considered to be inappropriate for assessment of asbestos and volatile contaminants and therefore provides some uncertainty in assessment of these contaminants over the site. The presence of asbestos management cells are documented within the northern and southern construction zones, no sources of volatile contaminants were documented in the site history review or were detected in site groundwater. Therefore, volatile contaminants are not considered to be of concern on the site.

11 CONCLUSIONS AND RECOMMENDATIONS

Interpretation of contamination data for waste classification, VENM, ENM and volume estimation was removed from the scope of works for this project, therefore the investigation of site suitability for construction and ongoing post construction land use remains the primary objective of this DSI. With respect to this objective, the following conclusions are made:

- Historical review of the site indicated that the site was predominantly vacant land with small buildings and structures since the 1950's, prior to construction of the North Strathfield Railway Underpass in 2015.
- Based on the historical review, no major developments or industrial activities have occurred on site, apart from documented asbestos management cells previously constructed in the southern and northern construction zones which are managed under existing EMPs (ADE 2015b, 2015c). Historical review has indicated minimal sources of contamination present onsite with the exception of the ACM impacted soils within the asbestos cells.
- Groundwater samples collected during the GME reported COPC below the adopted assessment criteria (with the exception of nickel, copper and zinc). Based on the results and given that groundwater is unlikely to be extracted for beneficial uses at the site or in the surrounding areas (i.e. drinking water, irrigation, etc), groundwater beneath the site is not considered to pose a risk to human health, including vapour intrusion, and does not preclude the site from commercial/industrial land use.
- Samples collected during the soil investigation in the northern construction area reported COPC below the adopted human health commercial/industrial assessment criteria, indicating the site is suitable for commercial/industrial land use.As no further assessment is recommended at BH19, the concrete slab at 0.3 mbgl should be demolished during excavation and any suspected contamination which may be associated with this structure should be addressed under the project unexpected finds protocol (UFP).
- Asbestos containing material (ACM) was not identified during the intrusive investigation and no potential ACM was observed within fill material, however it is noted that the drilling methods applied have limitations regarding visually identifying bonded ACM. The documented presence of an asbestos management cell (asbestos cell A) within the station box area indicates that ACM contaminated soils will likely be encountered during this excavation. Prior to excavation, the EMP conditions for the site should be complied with at all times.
- Given that construction activities will facilitate the complete removal of the northern asbestos cell A with no interference with the southern asbestos cell B, Epic considers there is no requirement for a Remedial Action Plan (RAP) for this site. Following station box construction, Epic considers the site will be suitable for on-going construction and post construction land-use and that any remaining residual fill will be sealed behind concrete pile walls.

- While this assessment indicates that remediation is not required for construction or for ongoing post construction land use, documented asbestos contaminated soils in the northern construction zone should be removed by a licensed asbestos removalist (Class A or B) in accordance with the existing construction environmental management plan (CEMP), which includes the project asbestos management plan (AMP) and disposed to a landfill licensed to accept this waste.
- Sampling was not completed in the southern construction zone following discussion with AFJV and the Site Auditor due to the lack of intrusive works required in this area and the significant amount of underground services leading to inability to achieve suitable drilling locations. Contamination at this location has been characterised by ADE (2015) and is currently managed under a passive EMP (asbestos cell B), which should be complied with. If the final site layout is changed significantly, or intrusive construction is required in the southern construction zone one or more of the following actions may be required:
    - Assessment to confirm site suitability of this area for commercial /industrial use
    - Redesign of the asbestos management cell, or, removal of the ACM affected soils contained in this area in accordance with the project (AMP)
    - Documentation of a new EMP (if required) reflecting changes made to the site.

12 LIMITATIONS AND DISCLAIMER

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13 REFERENCES

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ACRONYMS

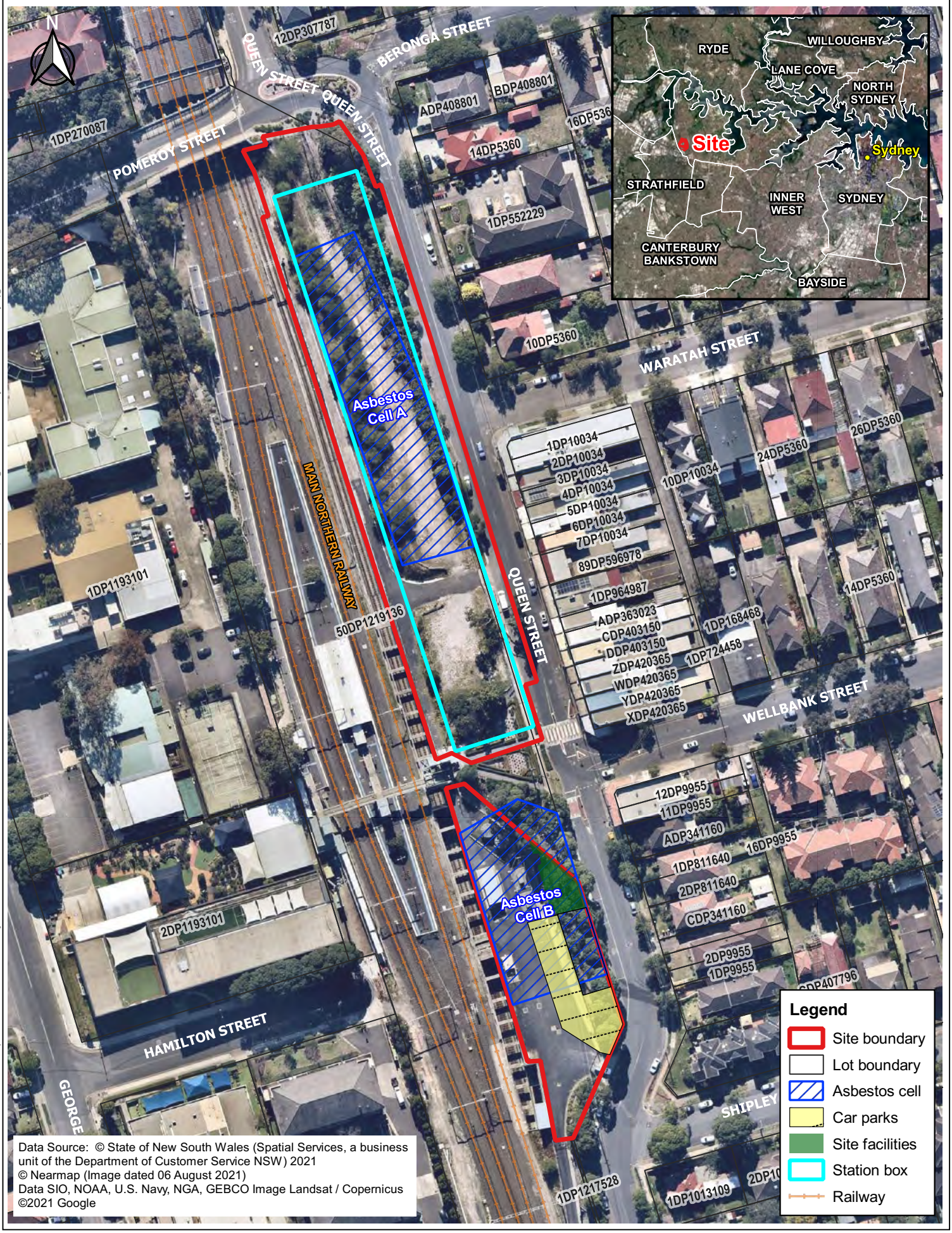
- ACM Asbestos containing material
- AHD Australian height datum
- AMP Asbestos Management Plan
- ARCP Asbestos Removal Control Plan
- BTEXN Benzene, toluene, ethylbenzene, xylenes, naphthalene
- CBD Central business district
- COC Chain of custody
- CoPC Contaminants of potential concern
- CSM Conceptual site model
- DBYD Dial Before You Dig
- DQI Data quality indicators
- DQOs Data quality objectives
- EIL Ecological investigation level
- EMP Environmental Management Plan
- EPA Environmental Protection Authority
- ESL Ecological screening level
- HIL Health investigation level
- HSL Health screening level
- LOSP Level of species protection
- mbgl Metres below ground level
- mBTOC Metres below top of casing
- NATA National Association of Testing Authorities
- NEPM National Environmental Protection Measure
- PAHs Polycyclic aromatic hydrocarbons
- PFAS Per- and Polyfluoroalkyl Substances
- QAQC Quality assurance / quality control
- RPD Relative percent difference
- SVOCs Semi-volatile organic compounds
- SWL Standing water level
- TRH Total recoverable hydrocarbons
- UCL Upper confidence limit
- VOCs Volatile organic compounds

FIGURES

Figure F1: Site location

Figure F2: Investigation locations

Figure F3: Conceptual site model – North-South



©QGIS 2019 File Path: G:\GIS\Epic Environmental\Projects\SC2021\SC210090.01 AFJV SMW Strathfield Station CLM\Workspaces\DS\Figure F1 Site Layout and Locality.qgz

epic ENVIRONMENTAL

0 20 40 60 m

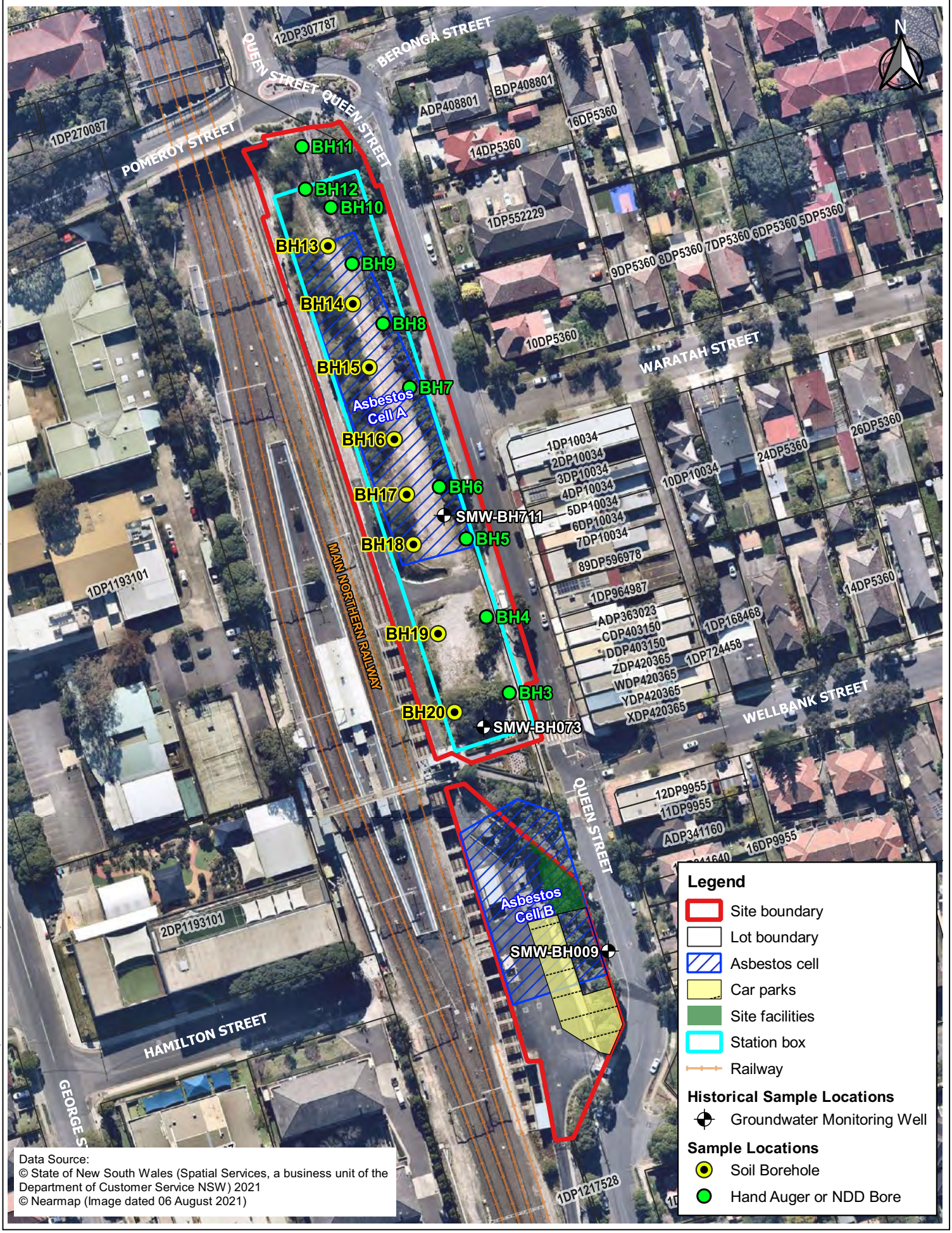
Scale: 1:1500 @ A4

Datum: GDA2020 Projection: MGA zone 56

Acciona Ferrovial Joint Venture
Sydney Metro West - Strathfield Station
Central Tunnelling Package
Detailed Site Investigation

Figure F1
Site Layout and Locality

SC210090.01 Rev A 24/02/2022



©QGIS 2019 File Path: G:\GIS\Epic Environmental\Projects\SC2021\SC210090.01 AFJV SMW Strathfield Station CLM\Workspaces\DS\Figure F2 Sample Locations.qgz

epic ENVIRONMENTAL

0 20 40 60 m

Scale: 1:1500 @ A4

Datum: GDA2020 Projection: MGA zone 56

Acciona Ferrovial Joint Venture
Sydney Metro West - Strathfield Station Central Tunnelling Package
Detailed Site Investigation

Figure F2
Sample Locations

SC210090.01 Rev A 24/02/2022

N

Northern construction zone

Southern construction zone

S

Residential

Beronga Street

Asbestos Cell A

BH11 BH10 BH14 BH15 BH16 BH17 BH19 BH073

1.0 0.5 6.1 3.0 6.0 3.0 0.9

Fill

Clay

Asbestos Cell B

Clean fill

Geotextile Layer

Queen Street

10.5 mbgl

SHALE

16.3

Proposed shaft excavation

Legend

2.9 Borehole depth (metres below ground level)

Standing water level

13.3 Well depth (metres below ground level)

Not to scale

Acciona Ferrovial Joint Venture
Sydney Metro West – North Strathfield Station
Detailed Site Investigation

Figure F3
Conceptual Site Model

SC210090.01 Rev 0 3/03/2022

G:\RuthWork\Epic Environmental\Projects\SC2021\SC210090.01 AFJV SMW Strathfield Station CLM\Workspaces\Figure F3 Conceptual Site Model.ppt

TABLES

Table T1: Soil analytical results

Table T2: Soil and TCLP analytical results

Table T3: Groundwater analytical results

Table T4: QA/QC - Soil RPD's

Table T5: QA/QC - Groundwater RPD's

Table T6: QA/QC - Rinsates and Trip Blanks

Table T7: QA/QC - Trip Spikes

Table T1: Soil Analytical Results

					Asbestos	NA	Inorganics							Metals						
					Asbestos fibres	Moisture Content	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury
					Detect	%	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.1	0.1	0.1		0.1	0.1	1	1	2	0.4	1	1	10	1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
PFAS NEMP 2020 Ecological direct exposure																				
PFAS NEMP 2020 Ecological indirect exposure																				
PFAS NEMP 2020 Industrial/ commercial (HIL D)																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																				
NEPM 2013 Table 1B(5) EIL - Comm/Ind														160		1,100	310		1,800	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil														3,000	900		240,000		1,500	730
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	0	8.5	-	-	-	-	-	-	-	<4	<0.4	16	56	-	23	<0.1
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	16	-	-	-	-	-	-	-	12	<0.4	15	47	-	38	<0.1
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	9.9	-	-	-	-	-	-	-	11	<0.4	10	48	-	30	<0.1
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	17	-	-	-	-	-	-	-	<4	<0.4	10	12	-	19	<0.1
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	0	13	-	-	-	-	-	-	-	<4	<0.4	9	30	-	19	<0.1
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	13	-	-	-	-	-	-	-	5	<0.4	9	25	-	42	<0.1
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	9.0	3.5	<0.4	14	13	-	19	<0.1
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	5.0	-	-	-	-	-	-	-	<4	<0.4	11	21	-	16	<0.1
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	13	-	-	-	-	-	-	-	11	<0.4	12	35	-	23	<0.1
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	16	<0.4	13	56	-	34	<0.1
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	0	12	-	-	-	-	-	-	-	16	0.4	8	43	-	32	<0.1
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	0	4.9	-	-	-	-	-	-	-	10	<0.4	8	44	-	31	<0.1
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	-	20	-	-	-	-	-	-	-	12	<0.4	9	38	-	28	<0.1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	27	-	-	-	-	-	-	-	8	<0.4	30	2	-	13	<0.1
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	25	-	-	-	-	-	-	-	7	<0.4	29	2	-	13	<0.1
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	20	14	<0.4	41	<5	-	19	<0.1
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	6.5	-	-	-	-	-	-	-	8	<0.4	10	38	-	26	<0.1
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	23	-	-	-	-	-	-	-	8	<0.4	39	3	-	15	0.1
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	0	13	-	-	-	-	-	-	-	15	<0.4	9	48	-	30	<0.1
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	0	2.9	8.5	4.1	9.1	0.4	1.2	14	-	7	<0.4	9	30	40,000	24	<0.1
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	19	10	3.5	9.2	0.4	0.8	15	-	11	<0.4	8	63	54,000	34	<0.1
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	0	9.9	-	-	-	-	-	-	-	10	<0.4	8	43	-	27	<0.1
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	14	-	-	-	-	-	-	-	20	<0.4	8	56	-	34	<0.1
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	0	15	-	-	-	-	-	-	-	15	<0.4	7	51	-	30	<0.1
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	18	-	-	-	-	-	-	-	15	<0.4	11	53	-	34	<0.1
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	0	12	-	-	-	-	-	-	-	7	<0.4	8	28	-	25	<0.1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	15	-	-	-	-	-	-	-	8	<0.4	8	32	-	50	<0.1
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	11	11	<0.4	10	31	-	34	<0.1
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	11	-	-	-	-	-	-	-	23	<0.4	11	53	-	44	<0.1
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	12	-	-	-	-	-	-	-	6	<0.4	6	47	-	15	<0.1
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	0	24	-	-	-	-	-	-	-	30	<0.4	13	60	-	45	<0.1
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	27	-	-	-	-	-	-	-	16	<0.4	10	43	-	33	<0.1
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	24	-	-	-	-	-	-	-	30	<0.4	16	40	-	49	<0.1
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	0	22	-	-	-	-	-	-	-	13	<0.4	6	33	-	32	<0.1
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	0	26	-	-	-	-	-	-	-	62	<0.4	19	120	-	95	0.2
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	26	-	-	-	-	-	-	-	28	<0.4	9	63	-	40	<0.1
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	24	<0.4	7	67	-	31	<0.1
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	14	-	-	-	-	-	-	-	16	<0.4	7	55	-	24	<0.1
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	0	12	-	-	-	-	-	-	-	8	<0.4	19	30	-	29	0.1
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	8.4	-	-	-	-	-	-	-	12	<0.4	10	84	-	28	<0.1

Table T1: Soil Analytical Results

					Asbestos	NA	Inorganics							Metals						
					Asbestos fibres	Moisture Content	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury
					Detect	%	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	0	25	-	-	-	-	-	-	-	17	<0.4	11	59	-	31	<0.1
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	20	-	-	-	-	-	-	-	22	<0.4	14	78	-	35	<0.1
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	19	-	-	-	-	-	-	-	7	<0.4	7	40	-	12	<0.1
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	0	12	-	-	-	-	-	-	-	12	<0.4	11	49	-	31	<0.1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	21	-	-	-	-	-	-	-	4	<0.4	11	19	-	19	<0.1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	11	-	-	-	-	-	-	-	6	<0.4	6	25	-	16	<0.1
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	11	-	-	-	-	-	-	-	4	<0.4	5	47	-	22	<0.1
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	6.5	-	-	-	-	-	-	-	5	<0.4	7	44	-	20	<0.1
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	6.2	-	-	-	-	-	-	-	<4	<0.4	8	49	-	21	<0.1
Statistics																				
Number of Results					**16**	**46**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**49**	**49**	**49**	**49**	**2**	**49**	**49**
Number of Detects					**16**	**46**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**44**	**1**	**49**	**48**	**2**	**49**	**3**
Minimum Concentration					**0**	**2.9**	**8.5**	**3.5**	**9.1**	**0.4**	**0.8**	**14**	**9**	**3.5**	**0.4**	**5**	**2**	**40,000**	**12**	**0.1**
Minimum Detect					**0**	**2.9**	**8.5**	**3.5**	**9.1**	**0.4**	**0.8**	**14**	**9**	**3.5**	**0.4**	**5**	**2**	**40,000**	**12**	**0.1**
Maximum Concentration					**0**	**27**	**10**	**4.1**	**9.2**	**0.4**	**1.2**	**15**	**20**	**62**	**0.4**	**41**	**120**	**54,000**	**95**	**0.2**
Maximum Detect					**0**	**27**	**10**	**4.1**	**9.2**	**0.4**	**1.2**	**15**	**20**	**62**	**0.4**	**41**	**120**	**54,000**	**95**	**0.2**
Average Concentration *					**0**	**15**	**9.2**	**3.8**	**9.1**	**0.4**	**1**	**14**	**13**	**13**	**0.2**	**12**	**42**	**47,000**	**29**	**0.055**
Median Concentration *					**0**	**13.5**	**9.25**	**3.8**	**9.15**	**0.4**	**1**	**14.5**	**11**	**11**	**0.2**	**10**	**43**	**47,000**	**29**	**0.05**
Standard Deviation *					**0**	**6.6**	**1.1**	**0.42**	**0.071**	**0**	**0.28**	**0.71**	**5.9**	**10**	**0.029**	**7.7**	**22**	**9,899**	**13**	**0.023**
95% UCL (Student's-t) *					**0**	**16.85**	**13.99**	**5.694**	**9.466**	**0.4**	**2.263**	**17.66**	**23.21**	**15.01**	**0.211**	**13.92**	**47.22**	**91,196**	**32.48**	**0.0607**
% of Detects					**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**90**	**2**	**100**	**98**	**100**	**100**	**6**
% of Non-Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**98**	**0**	**2**	**0**	**0**	**94**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					TRH								TPH						
					Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					1	1	20	20	50	50	100	100	50	20	20	50	50	50	0.5	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil							800		1,000		5,000	10,000								
PFAS NEMP 2020 Ecological direct exposure																				
PFAS NEMP 2020 Ecological indirect exposure																				
PFAS NEMP 2020 Industrial/ commercial (HIL D)																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay								310 | 480												4 | 6 | 9 | 20
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand								260 | 370 | 630												3 | 3 | 3 | 3
NEPM 2013 Table 1B(5) EIL - Comm/Ind					370	960													370	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil								215	170	170	2,500	6,600								95
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil					6,000	400,000														
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	13	67	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	11	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	8	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	<1	4	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	6	36	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	6	40	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	7.2	35	<20	<20	<50	<50	110	<100	110	<20	21	67	55	143	<0.5	<0.1
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	4	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	9	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	18	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	7	45	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	14	57	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	11	55	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	2	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	2	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<5	5.2	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	12	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	10	46	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	15	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	32	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	23	87	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	15	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	18	67	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	22	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	7	41	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	9	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	5.4	58	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	15	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	8	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	19	84	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	10	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	5	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	10	33	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	26	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	11	56	<25	<25	<50	<50	150	<100	150	<25	<50	100	<100	100	<1	<0.2
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	12	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	24	140	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	7	83	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	8	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

							TRH							TPH					
					Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	9	49	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	20	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	11	56	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	7	30	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	1	10	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	9	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	21	75	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	21	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																			
Number of Results					**49**	**49**	**31**	**31**	**29**	**29**	**29**	**29**	**29**	**31**	**29**	**29**	**29**	**29**	**31**	**32**
Number of Detects					**47**	**49**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**1**	**2**	**1**	**2**	**0**	**0**
Minimum Concentration					**1**	**2**	**<20**	**<20**	**<50**	**<50**	**<100**	**<100**	**<50**	**<20**	**<20**	**<50**	**<50**	**<50**	**<0.5**	**<0.1**
Minimum Detect					**1**	**2**	**ND**	**ND**	**ND**	**ND**	**110**	**ND**	**110**	**ND**	**21**	**67**	**55**	**100**	**ND**	**ND**
Maximum Concentration					**32**	**140**	**<25**	**<25**	**<50**	**<50**	**150**	**<100**	**150**	**<25**	**<50**	**100**	**<100**	**143**	**<1**	**<0.2**
Maximum Detect					**32**	**140**	**ND**	**ND**	**ND**	**ND**	**150**	**ND**	**150**	**ND**	**21**	**100**	**55**	**143**	**ND**	**ND**
Average Concentration *					**11**	**53**	**12**	**12**	**25**	**25**	**56**	**50**	**34**	**12**	**24**	**51**	**48**	**32**	**0.48**	**0.095**
Median Concentration *					**10**	**55**	**12.5**	**12.5**	**25**	**25**	**50**	**50**	**25**	**12.5**	**25**	**50**	**50**	**25**	**0.5**	**0.1**
Standard Deviation *					**7.1**	**29**	**0.75**	**0.75**	**0**	**0**	**21**	**0**	**28**	**0.75**	**3.9**	**12**	**6.6**	**26**	**0.075**	**0.015**
95% UCL (Student's-t) *					**12.95**	**60.29**	**12.49**	**12.49**	**25**	**25**	**62.25**	**50**	**42.77**	**12.49**	**25.06**	**54.38**	**50.52**	**39.72**	**0.499**	**0.0998**
% of Detects					**96**	**100**	**0**	**0**	**0**	**0**	**7**	**0**	**7**	**0**	**3**	**7**	**3**	**7**	**0**	**0**
% of Non-Detects					**4**	**0**	**100**	**100**	**100**	**100**	**93**	**100**	**93**	**100**	**97**	**93**	**97**	**93**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					BTEX					MAH									Halogenated Hydrocarbo		
					Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.2	0.1	0.3	1	1	1	1	1	1	1	1	1	1	1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
PFAS NEMP 2020 Ecological direct exposure																					
PFAS NEMP 2020 Ecological indirect exposure																					
PFAS NEMP 2020 Industrial/ commercial (HIL D)																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand									230												
NEPM 2013 Table 1B(5) EIL - Comm/Ind																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil					135	185			95												
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																					
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																	
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	<0.5	<1	<2	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

					BTEX					MAH									Halogenated Hydrocarbo		
					Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																					
Number of Results					**32**	**32**	**32**	**32**	**31**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration					**<0.1**	**<0.1**	**<0.2**	**<0.1**	**<0.3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration					**<0.5**	**<1**	**<2**	**<1**	**<3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *					**0.23**	**0.46**	**0.92**	**0.46**	**1.3**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Median Concentration *					**0.25**	**0.5**	**1**	**0.5**	**1.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Standard Deviation *					**0.059**	**0.13**	**0.27**	**0.13**	**0.48**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *					**0.249**	**0.498**	**0.996**	**0.498**	**1.418**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
% of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects					**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					ns	Chlorinated Hydrocarbons																
					Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																						
PFAS NEMP 2020 Ecological direct exposure																						
PFAS NEMP 2020 Ecological indirect exposure																						
PFAS NEMP 2020 Industrial/ commercial (HIL D)																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																						
NEPM 2013 Table 1B(5) EIL - Comm/Ind																						
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																						
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																		
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

					ns	Chlorinated Hydrocarbons																
					Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																						
Number of Results					**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration					**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration					**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *					**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**
Median Concentration *					**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**
Standard Deviation *					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *					**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**
% of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects					**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

																			Halogenated			
					Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																						
PFAS NEMP 2020 Ecological direct exposure																						
PFAS NEMP 2020 Ecological indirect exposure																						
PFAS NEMP 2020 Industrial/ commercial (HIL D)																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																						
NEPM 2013 Table 1B(5) EIL - Comm/Ind																						
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																						
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																		
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

																			Halogenate		
					Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																						
Number of Results					**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration					**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration					**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect					**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *					**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**
Median Concentration *					**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**
Standard Deviation *					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *					**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**
% of Detects					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects					**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					d Benzenes															
					2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)	Anthracene	Anthracene (filtered)	Benz(a)anthracene	Benz(a)anthracene (filtered)	Benzo(a) pyrene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg
EQL					1	1	1	1	0.1	0.2	0.002	0.1	1	0.1	1	0.1	1	0.1	1	0.05
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
PFAS NEMP 2020 Ecological direct exposure																				
PFAS NEMP 2020 Ecological indirect exposure																				
PFAS NEMP 2020 Industrial/ commercial (HIL D)																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																				
NEPM 2013 Table 1B(5) EIL - Comm/Ind																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				1.4
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil									80											
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<1	<1	<1	<1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	0.3	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.3
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-	0.2	-	0.1	-	0.1
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.3
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	<0.1	<0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-	<0.1	-	0.3	-	0.3
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-	<0.1	-	0.3	-	0.4
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.09
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	<0.1	0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.07
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	0.3	-	<0.1	-	<0.1	-	0.2	-	0.2	-	0.2
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	<0.1	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.08
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	0.7	-	<0.1	-	<0.1	-	<0.1	-	0.4	-	0.4
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	1	-	<0.1	-	0.2	-	0.2	-	0.9	-	0.85
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	<0.002	-	<1	-	<1	-	<1	-	<1	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	2.4	-	0.4	-	0.3	-	1.3	-	2.0	-	1.7
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	<0.002	-	<1	-	<1	-	<1	-	<1	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-	0.2	-	0.3	-	0.2
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	<0.1	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.06
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.09

Table T1: Soil Analytical Results

					d Benzenes															
					2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)	Anthracene	Anthracene (filtered)	Benz(a)anthracene	Benz(a)anthracene (filtered)	Benzo(a) pyrene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.07
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<0.1	0.6	-	<0.1	-	<0.1	-	<0.1	-	0.4	-	0.4
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<0.1	<0.2	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.05
Statistics																				
Number of Results					9	9	9	9	10	44	2	47	2	47	2	47	2	47	2	47
Number of Detects					0	0	0	0	0	19	0	1	0	2	0	5	0	22	0	30
Minimum Concentration					<1	<1	<1	<1	<0.1	0.2	<0.002	<0.1	<1	<0.1	<1	<0.1	<1	0.1	<1	<0.05
Minimum Detect					ND	ND	ND	ND	ND	0.2	ND	0.4	ND	0.2	ND	0.2	ND	0.1	ND	0.06
Maximum Concentration					<1	<1	<1	<1	<0.1	2.4	<0.002	<0.5	<1	<0.5	<1	1.3	<1	2	<1	1.7
Maximum Detect					ND	ND	ND	ND	ND	2.4	ND	0.4	ND	0.3	ND	1.3	ND	2	ND	1.7
Average Concentration *					0.5	0.5	0.5	0.5	0.05	0.27	0.001	0.07	0.5	0.071	0.5	0.1	0.5	0.18	0.5	0.18
Median Concentration *					0.5	0.5	0.5	0.5	0.05	0.1	0.001	0.05	0.5	0.05	0.5	0.05	0.5	0.1	0.5	0.1
Standard Deviation *					0	0	0	0	0	0.38	0	0.07	0	0.063	0	0.19	0	0.31	0	0.27
95% UCL (Student's-t) *					0.5	0.5	0.5	0.5	0.05	0.372	0.001	0.0873	0.5	0.0868	0.5	0.148	0.5	0.258	0.5	0.248
% of Detects					0	0	0	0	0	43	0	2	0	4	0	11	0	47	0	64
% of Non-Detects					100	100	100	100	100	57	100	98	100	96	100	89	100	53	100	36

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					PAH															
					Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)	Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)
					mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L
EQL					0.5	0.1	1	0.5	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.1	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
PFAS NEMP 2020 Ecological direct exposure																				
PFAS NEMP 2020 Ecological indirect exposure																				
PFAS NEMP 2020 Industrial/ commercial (HIL D)																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																				
NEPM 2013 Table 1B(5) EIL - Comm/Ind																			370	
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																				
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	-	0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	0.1	-	-	0.1	-	<0.1	-	0.3	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	0.2	-	-	0.2	-	<0.1	-	0.5	-	<0.1	-	0.1	-	<0.1	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	0.1	-	-	<0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	0.2	-	-	0.3	-	<0.1	-	0.7	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	0.2	-	-	0.2	-	<0.1	-	0.3	-	<0.1	-	0.1	-	<0.1	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	-	0.1	-	-	0.2	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	-	0.2	-	-	0.3	-	<0.1	-	0.7	-	<0.1	-	0.1	-	<0.1	-
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	0.1	-	<0.1	-	<0.1	-	<0.1	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	0.4	-	-	0.4	-	<0.1	-	0.4	-	<0.1	-	0.2	-	<0.1	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	0.2	-	-	0.2	-	<0.1	-	0.3	-	<0.1	-	0.1	-	<0.1	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	-	<0.1	-	-	0.1	-	<0.1	-	0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	0.2	-	-	0.2	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	0.1	-	-	0.2	-	<0.1	-	0.6	-	0.1	-	<0.1	-	0.2	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	0.3	-	-	0.4	-	<0.1	-	0.5	-	<0.1	-	0.2	-	<0.1	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	0.5	-	-	1	-	<0.1	-	1.6	-	<0.1	-	0.4	-	<0.1	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	<1	-	-	<1	-	<1	-	<1	-	<1	-	<1	-	<1
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	0.9	-	-	1.9	-	0.2	-	4.9	-	0.3	-	0.7	-	0.8	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	<1	-	-	<1	-	<1	-	<1	-	<1	-	<1	-	2
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	0.2	-	-	0.4	-	<0.1	-	0.7	-	<0.1	-	0.1	-	0.1	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-

Table T1: Soil Analytical Results

					PAH															
					Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)	Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)
					mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	<0.1	-	-	0.1	-	<0.1	-	0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	-	0.3	-	-	0.4	-	<0.1	-	0.4	-	<0.1	-	0.2	-	<0.1	-
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-	<0.1	-
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	<0.1	-	-	0.2	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	<0.1	-	-	0.2	-	<0.1	-	<0.1	-	0.2	-	<0.1	-	<0.1	-
Statistics																				
Number of Results					**3**	**47**	**2**	**3**	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**2**
Number of Detects					**0**	**20**	**0**	**0**	**26**	**0**	**1**	**0**	**27**	**0**	**3**	**0**	**10**	**0**	**4**	**1**
Minimum Concentration					**<0.5**	**0.1**	**<1**	**<0.5**	**0.1**	**<1**	**<0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**
Minimum Detect					**ND**	**0.1**	**ND**	**ND**	**0.1**	**ND**	**0.2**	**ND**	**0.1**	**ND**	**0.1**	**ND**	**0.1**	**ND**	**0.1**	**2**
Maximum Concentration					**<0.5**	**0.9**	**<1**	**<0.5**	**1.9**	**<1**	**<0.5**	**<1**	**4.9**	**<1**	**<0.5**	**<1**	**0.7**	**<1**	**0.8**	**2**
Maximum Detect					**ND**	**0.9**	**ND**	**ND**	**1.9**	**ND**	**0.2**	**ND**	**4.9**	**ND**	**0.3**	**ND**	**0.7**	**ND**	**0.8**	**2**
Average Concentration *					**0.25**	**0.14**	**0.5**	**0.25**	**0.2**	**0.5**	**0.066**	**0.5**	**0.34**	**0.5**	**0.072**	**0.5**	**0.099**	**0.5**	**0.084**	**1.2**
Median Concentration *					**0.25**	**0.05**	**0.5**	**0.25**	**0.1**	**0.5**	**0.05**	**0.5**	**0.2**	**0.5**	**0.05**	**0.5**	**0.05**	**0.5**	**0.05**	**1.25**
Standard Deviation *					**0**	**0.15**	**0**	**0**	**0.3**	**0**	**0.053**	**0**	**0.73**	**0**	**0.063**	**0**	**0.12**	**0**	**0.12**	**1.1**
95% UCL (Student's-t) *					**0.25**	**0.177**	**0.5**	**0.25**	**0.273**	**0.5**	**0.079**	**0.5**	**0.52**	**0.5**	**0.0878**	**0.5**	**0.128**	**0.5**	**0.113**	**5.985**
% of Detects					**0**	**43**	**0**	**0**	**55**	**0**	**2**	**0**	**57**	**0**	**6**	**0**	**21**	**0**	**9**	**50**
% of Non-Detects					**100**	**57**	**100**	**100**	**45**	**100**	**98**	**100**	**43**	**100**	**94**	**100**	**79**	**100**	**91**	**50**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

													Phenols	PCBs						
					Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)	Phenolics Total	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254
					mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	1	0.1	1	0.5	0.5	0.5	0.5	0.05		5	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
PFAS NEMP 2020 Ecological direct exposure																					
PFAS NEMP 2020 Ecological indirect exposure																					
PFAS NEMP 2020 Industrial/ commercial (HIL D)																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																					
NEPM 2013 Table 1B(5) EIL - Comm/Ind																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																					
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil									40	40	40	4,000									
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																	
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.1	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	0.2	-	0.3	-	<0.5	<0.5	<0.5	-	1.7	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	0.4	-	0.5	-	<0.5	<0.5	<0.5	-	2.9	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.74	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.2	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	0.2	-	0.6	-	<0.5	<0.5	<0.5	-	2.9	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	0.1	-	0.4	-	<0.5	<0.5	<0.5	-	2.1	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.89	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	0.2	-	0.6	-	<0.5	<0.5	<0.5	-	3.2	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.4	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	0.2	-	0.5	-	0.5	0.6	<0.5	-	3.4	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	0.2	-	0.3	-	<0.5	<0.5	<0.5	-	2.1	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.5	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.4	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.4	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	0.07	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	0.9	-	0.6	-	<0.5	<0.5	<0.5	-	3.4	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	0.08	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	0.3	-	0.6	-	0.6	0.6	0.5	-	3.7	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	1.0	-	1.6	-	1.2	1.2	1.1	-	9.6	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	<1	-	<1	-	-	-	-	-	0[#1]	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	5.7	-	4.6	-	2.4	2.4	2.4	-	28	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	2	-	<1	-	-	-	-	-	0.0031	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	1	-	0.7	-	<0.5	<0.5	<0.5	-	4.2	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.2	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.61	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

														Phenols	PCBs					
					Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)	Phenolics Total	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254
					mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	0.61	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	-	0.5	-	0.6	0.6	0.5	-	3.2	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.1	-	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	0.3	-	<0.1	-	<0.5	<0.5	<0.5	-	0.58	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	0.4	-	<0.1	-	<0.5	<0.5	<0.5	-	0.81	-	-	-	-	-	-	-	-
Statistics																					
Number of Results					**47**	**2**	**47**	**2**	**47**	**47**	**47**	**3**	**44**	**2**	**8**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects					**20**	**1**	**28**	**0**	**8**	**8**	**4**	**0**	**32**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration					**0.1**	**<1**	**0.1**	**<1**	**0.5**	**<0.5**	**0.5**	**<0.5**	**<0.05**	**0**	**<5**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect					**0.1**	**2**	**0.1**	**ND**	**0.5**	**0.6**	**0.5**	**ND**	**0.07**	**0**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration					**5.7**	**2**	**4.6**	**<1**	**2.4**	**2.4**	**2.4**	**<0.5**	**28**	**0.0031**	**<5**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect					**5.7**	**2**	**4.6**	**ND**	**2.4**	**2.4**	**2.4**	**ND**	**28**	**0.0031**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *					**0.3**	**1.2**	**0.34**	**0.5**	**0.36**	**0.4**	**0.32**	**0.25**	**1.9**	**0.0016**	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *					**0.05**	**1.25**	**0.2**	**0.5**	**0.25**	**0.25**	**0.25**	**0.25**	**0.775**	**0.00155**	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *					**0.84**	**1.1**	**0.69**	**0**	**0.35**	**0.41**	**0.34**	**0**	**4.4**	**0.0022**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *					**0.504**	**5.985**	**0.511**	**0.5**	**0.444**	**0.498**	**0.407**	**0.25**	**3.051**	**0.0113**	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects					**43**	**50**	**60**	**0**	**17**	**17**	**9**	**0**	**73**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects					**57**	**50**	**40**	**100**	**83**	**83**	**91**	**100**	**27**	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

						Organochlorine Pesticides																	
					Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																							
PFAS NEMP 2020 Ecological direct exposure																							
PFAS NEMP 2020 Ecological indirect exposure																							
PFAS NEMP 2020 Industrial/ commercial (HIL D)																							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																							
NEPM 2013 Table 1B(5) EIL - Comm/Ind															640								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																							
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						7										3,600					100		
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																			
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T1: Soil Analytical Results

							Organochlorine Pesticides															
					Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																							
Number of Results					9	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Median Concentration *					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Standard Deviation *					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
% of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects					100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					Organophosphorous Pesticides													Perfluor		
					Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg
EQL					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.1	0.1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																						
PFAS NEMP 2020 Ecological direct exposure																						
PFAS NEMP 2020 Ecological indirect exposure																						
PFAS NEMP 2020 Industrial/ commercial (HIL D)																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																						
NEPM 2013 Table 1B(5) EIL - Comm/Ind																						
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil					50		2,500			2,000												
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																		
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5

Table T1: Soil Analytical Results

					Organophosphorous Pesticides														Perfluor		
					Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.005	<5	<5
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	8	8
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					oalkyl Sulfonic Acids				Perfluoroalkyl Carboxylic Acid											
					Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)
					µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
EQL					0.1	0.2	0.1	0.0001	0.1	0.2	0.5	0.1	0.5	0.1	0.2	5	0.5	0.5	0.0001	1
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
PFAS NEMP 2020 Ecological direct exposure								1											10	
PFAS NEMP 2020 Ecological indirect exposure								0.01												
PFAS NEMP 2020 Industrial/ commercial (HIL D)							*20,000*												*50*	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand																				
NEPM 2013 Table 1B(5) EIL - Comm/Ind																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																				
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**																
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	<5	<5	11	0.011	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	<5	<5	<0.1	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	<5	<5	<0.1	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	<5	<5	<0.1	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5

Table T1: Soil Analytical Results

					Perfluoroalkyl Sulfonic Acids				Perfluoroalkyl Carboxylic Acid											
					Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)
					µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<5	<5	<5	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<5	<0.1	<0.005	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
Minimum Detect	ND	ND	11	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<5	<5	11	0.011	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5
Maximum Detect	ND	ND	11	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	2.5	2.5	2.6	0.0036	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
Median Concentration *	2.5	2.5	2.5	0.0025	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
Standard Deviation *	0	0	3.6	0.003	0	0	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	2.5	2.5	5.047	0.00558	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0.0025	2.5
% of Detects	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	88	88	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T1: Soil Analytical Results

					Perfluoroalkyl Sulfonamides						Fluorotelomer Sulfonic Acids			
					N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
					µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
EQL					0.2	5	1	0.2	0.001	1	0.2	0.0002	0.1	0.0001
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil														
PFAS NEMP 2020 Ecological direct exposure														
PFAS NEMP 2020 Ecological indirect exposure														
PFAS NEMP 2020 Industrial/ commercial (HIL D)														
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay														
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand														
NEPM 2013 Table 1B(5) EIL - Comm/Ind														
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil														
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil														
Lab Report Number	**Field ID**	**Parent Sample**	**Date**	**Matrix Type**										
287841	**EPIC_NS_BH03_0-0.1**		**1/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
287841	**EPIC_NS_BH03_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.1-0.2**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH04_0.9-1**		**1/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
287841	**EPIC_NS_BH05_0.5-0.6**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_QC01**	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
861533	**EPIC_NS_QC02**	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH05_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH06_0-0.1**	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288141	**EPIC_NS_BH06_0.9-1.0**		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH07_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH08_0.8-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC03**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC04**	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0-0.1**		**1/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
287841-A	**EPIC_NS_BH09_0.7-0.8**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH09_0.9-1.0**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH10_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0-0.1**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
287841	**EPIC_NS_BH11_0.6-0.7**		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.1-0.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH12_0.5-0.6**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0.9-1.0**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH13_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_QC05**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
864291	**EPIC_NS_QC06**	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH14_4.0-4.1**		**4/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
288341	**EPIC_NS_BH14_6.0-6.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_1.4-1.5**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH15_2.9-3.0**		**4/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
288341	**EPIC_NS_BH16_0.5-0.6**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
288341-A	**EPIC_NS_BH16_2.0-2.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341-A	**EPIC_NS_BH16_4.0-4.1**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_4.0-4.1**	**[TRIPLICATE]**	**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH16_5.9-6.0**		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_0-0.1**		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-
288341	**EPIC_NS_BH17_2.0-2.1**		**4/02/2022**	**Soil**	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005

Table T1: Soil Analytical Results

					Perfluoroalkyl Sulfonamides						Fluorotelomer Sulfonic Acids			
					N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
					µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
288341	EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288341	EPIC_NS_BH19_0-0.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288141-A	EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
288141	EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-
288141	EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	8	8	8	8	8	8	8	8	8	8
Number of Detects	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<5	<5	<5	<5	<0.005	<5	<5	<0.005	<5	<0.005
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
Median Concentration *	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
Standard Deviation *	0	0	0	0	0	0	0	0	0	0
95% UCL (Student's-t) *	2.5	2.5	2.5	2.5	0.0025	2.5	2.5	0.0025	2.5	0.0025
% of Detects	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Comments
#1 NIL (+)VE

Environmental Standards
NEPM, NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil
HEPA, January 2020, PFAS NEMP 2020 Ecological direct exposure
HEPA, January 2020, PFAS NEMP 2020 Ecological indirect exposure
HEPA, January 2020, PFAS NEMP 2020 Industrial/ commercial (HIL D)
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay
2013, NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand
2013, NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil
2013, NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Asbestos	NA	Inorganics								Metals						
				Asbestos fibres	Moisture Content	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury
				Detect	%	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.1		0.1	0.1	1	1	2	0.4	1	1	10	1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)													40	1	150	200		100	1
NSW 2014 Excavated Natural Material (Max Average)													20	0.5	75	100		50	0.5
NSW 2014 General Solid Waste CT1 (No Leaching)													100	20				100	4
NSW 2014 General Solid Waste SCC1 (with leached)													500	100				1,500	50
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	16	-	-	-	-	-	-	-	12	<0.4	15	47	-	38	<0.1
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	0	8.5	-	-	-	-	-	-	-	<4	<0.4	16	56	-	23	<0.1
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	9.9	-	-	-	-	-	-	-	11	<0.4	10	48	-	30	<0.1
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	17	-	-	-	-	-	-	-	<4	<0.4	10	12	-	19	<0.1
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	0	13	-	-	-	-	-	-	-	<4	<0.4	9	30	-	19	<0.1
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	13	-	-	-	-	-	-	-	5	<0.4	9	25	-	42	<0.1
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	9.0	3.5	<0.4	14	13	-	19	<0.1
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	5.0	-	-	-	-	-	-	-	<4	<0.4	11	21	-	16	<0.1
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	0	12	-	-	-	-	-	-	-	16	0.4	8	43	-	32	<0.1
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	13	-	-	-	-	-	-	-	11	<0.4	12	35	-	23	<0.1
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	16	<0.4	13	56	-	34	<0.1
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	0	4.9	-	-	-	-	-	-	-	10	<0.4	8	44	-	31	<0.1
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	27	-	-	-	-	-	-	-	8	<0.4	30	2	-	13	<0.1
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	25	-	-	-	-	-	-	-	7	<0.4	29	2	-	13	<0.1
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	20	14	<0.4	41	<5	-	19	<0.1
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	-	20	-	-	-	-	-	-	-	12	<0.4	9	38	-	28	<0.1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	23	-	-	-	-	-	-	-	8	<0.4	39	3	-	15	0.1
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	-	6.5	-	-	-	-	-	-	-	8	<0.4	10	38	-	26	<0.1
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	0	13	-	-	-	-	-	-	-	15	<0.4	9	48	-	30	<0.1
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	0	2.9	-	-	-	-	-	-	-	7	<0.4	9	30	-	24	<0.1
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	8.5	4.1	9.1	0.4	1.2	14	-	-	-	-	-	40,000	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	19	-	-	-	-	-	-	-	11	<0.4	8	63	-	34	<0.1
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	10	3.5	9.2	0.4	0.8	15	-	-	-	-	-	54,000	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	9.9	-	-	-	-	-	-	-	10	<0.4	8	43	-	27	<0.1
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	14	-	-	-	-	-	-	-	20	<0.4	8	56	-	34	<0.1
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	0	15	-	-	-	-	-	-	-	15	<0.4	7	51	-	30	<0.1
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	18	-	-	-	-	-	-	-	15	<0.4	11	53	-	34	<0.1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	12	-	-	-	-	-	-	-	7	<0.4	8	28	-	25	<0.1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	15	-	-	-	-	-	-	-	8	<0.4	8	32	-	50	<0.1
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	11	11	<0.4	10	31	-	34	<0.1
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	11	-	-	-	-	-	-	-	23	<0.4	11	53	-	44	<0.1
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	12	-	-	-	-	-	-	-	6	<0.4	6	47	-	15	<0.1
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	0	24	-	-	-	-	-	-	-	30	<0.4	13	60	-	45	<0.1
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	27	-	-	-	-	-	-	-	16	<0.4	10	43	-	33	<0.1
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	24	-	-	-	-	-	-	-	30	<0.4	16	40	-	49	<0.1
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	0	22	-	-	-	-	-	-	-	13	<0.4	6	33	-	32	<0.1
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	26	-	-	-	-	-	-	-	62	<0.4	19	120	-	95	0.2
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Asbestos	NA	Inorganics								Metals						
				Asbestos fibres	Moisture Content	Exchangeable Calcium	Exchangeable Magnesium	pH 1:5 soil:water	Exchangeable Potassium	Exchangeable Sodium	CEC	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Iron	Lead	Mercury
				Detect	%	meq/100g	meq/100g	-	meq/100g	meq/100g	meq/100g	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	26	-	-	-	-	-	-	-	28	<0.4	9	63	-	40	<0.1
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	24	<0.4	7	67	-	31	<0.1
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	14	-	-	-	-	-	-	-	16	<0.4	7	55	-	24	<0.1
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	0	12	-	-	-	-	-	-	-	8	<0.4	19	30	-	29	0.1
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	8.4	-	-	-	-	-	-	-	12	<0.4	10	84	-	28	<0.1
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	0	25	-	-	-	-	-	-	-	17	<0.4	11	59	-	31	<0.1
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	20	-	-	-	-	-	-	-	22	<0.4	14	78	-	35	<0.1
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	19	-	-	-	-	-	-	-	7	<0.4	7	40	-	12	<0.1
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	0	12	-	-	-	-	-	-	-	12	<0.4	11	49	-	31	<0.1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	21	-	-	-	-	-	-	-	4	<0.4	11	19	-	19	<0.1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	6.5	-	-	-	-	-	-	-	5	<0.4	7	44	-	20	<0.1
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	6.2	-	-	-	-	-	-	-	<4	<0.4	8	49	-	21	<0.1
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	11	-	-	-	-	-	-	-	6	<0.4	6	25	-	16	<0.1
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	11	-	-	-	-	-	-	-	4	<0.4	5	47	-	22	<0.1

Statistics

Number of Results	**16**	**46**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**49**	**49**	**49**	**49**	**2**	**49**	**49**
Number of Detects	**16**	**46**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**44**	**1**	**49**	**48**	**2**	**49**	**3**
Minimum Concentration	**0**	**2.9**	**8.5**	**3.5**	**9.1**	**0.4**	**0.8**	**14**	**9**	**3.5**	**0.4**	**5**	**2**	**40,000**	**12**	**0.1**
Minimum Detect	**0**	**2.9**	**8.5**	**3.5**	**9.1**	**0.4**	**0.8**	**14**	**9**	**3.5**	**0.4**	**5**	**2**	**40,000**	**12**	**0.1**
Maximum Concentration	**0**	**27**	**10**	**4.1**	**9.2**	**0.4**	**1.2**	**15**	**20**	**62**	**0.4**	**41**	**120**	**54,000**	**95**	**0.2**
Maximum Detect	**0**	**27**	**10**	**4.1**	**9.2**	**0.4**	**1.2**	**15**	**20**	**62**	**0.4**	**41**	**120**	**54,000**	**95**	**0.2**
Average Concentration *	**0**	**15**	**9.2**	**3.8**	**9.1**	**0.4**	**1**	**14**	**13**	**13**	**0.2**	**12**	**42**	**47,000**	**29**	**0.055**
Median Concentration *	**0**	**13.5**	**9.25**	**3.8**	**9.15**	**0.4**	**1**	**14.5**	**11**	**11**	**0.2**	**10**	**43**	**47,000**	**29**	**0.05**
Standard Deviation *	**0**	**6.6**	**1.1**	**0.42**	**0.071**	**0**	**0.28**	**0.71**	**5.9**	**10**	**0.029**	**7.7**	**22**	**9,899**	**13**	**0.023**
95% UCL (Student's-t) *	**0**	**16.85**	**13.99**	**5.694**	**9.466**	**0.4**	**2.263**	**17.66**	**23.21**	**15.01**	**0.211**	**13.92**	**47.22**	**91,196**	**32.48**	**0.0607**
% of Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**90**	**2**	**100**	**98**	**100**	**100**	**6**
% of Non-Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**98**	**0**	**2**	**0**	**0**	**94**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				TRH							TPH						
				Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				1	1	20	20	50	50	100	100	50	20	20	50	50	50	0.5	0.1
NSW 2014 Excavated Natural Material (Absolute Max)				60	300												500		0.5
NSW 2014 Excavated Natural Material (Max Average)				30	150												250		
NSW 2014 General Solid Waste CT1 (No Leaching)				40									650				10,000		10
NSW 2014 General Solid Waste SCC1 (with leached)				1,050									650				10,000		18
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	11	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	13	67	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	8	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<1	4	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	6	36	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	6	40	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	7.2	35	<20	<20	<50	<50	110	<100	110	<20	21	67	55	143	<0.5	<0.1
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	4	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	7	45	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	9	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	18	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	14	57	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	2	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	2	2	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<5	5.2	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	11	55	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	12	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	10	46	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	15	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	32	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	23	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	15	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	18	67	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	22	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	7	41	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	9	55	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	5.4	58	<20	<20	<50	<50	<100	<100	<100	<20	<20	<50	<50	<50	<0.5	<0.1
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	15	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	8	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	19	84	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	10	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	5	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	10	33	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	26	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

						TRH							TPH						
				Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		**3/02/2022**	**Soil**	11	56	<25	<25	<50	<50	150	<100	150	<25	<50	100	<100	100	<1	<0.2
EPIC_NS_BH16_4.0-4.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	**[TRIPLICATE]**	**3/02/2022**	**Soil**	12	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		**3/02/2022**	**Soil**	24	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		**3/02/2022**	**Soil**	-	-	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH17_0-0.1		**4/02/2022**	**Soil**	7	83	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH17_2.0-2.1		**4/02/2022**	**Soil**	8	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		**3/02/2022**	**Soil**	9	49	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH18_3.0-3.1		**3/02/2022**	**Soil**	20	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		**3/02/2022**	**Soil**	3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		**3/02/2022**	**Soil**	11	56	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH20_0.5-0.6		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		**2/02/2022**	**Soil**	7	30	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH20_10-10.1		**2/02/2022**	**Soil**	21	75	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH20_15.15.1		**2/02/2022**	**Soil**	21	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		**2/02/2022**	**Soil**	1	10	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<50	<1	<0.2
EPIC_NS_BH20_3.0-3.1		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		**2/02/2022**	**Soil**	9	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**49**	**49**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**29**	**30**		
Number of Detects	**47**	**49**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**1**	**2**	**1**	**2**	**0**	**0**		
Minimum Concentration	**1**	**2**	**<20**	**<20**	**<50**	**<50**	**<100**	**<100**	**<50**	**<20**	**<20**	**<50**	**<50**	**<50**	**<0.5**	**<0.1**		
Minimum Detect	**1**	**2**	**ND**	**ND**	**ND**	**ND**	**110**	**ND**	**110**	**ND**	**21**	**67**	**55**	**100**	**ND**	**ND**		
Maximum Concentration	**32**	**140**	**<25**	**<25**	**<50**	**<50**	**150**	**<100**	**150**	**<25**	**<50**	**100**	**<100**	**143**	**<1**	**<0.2**		
Maximum Detect	**32**	**140**	**ND**	**ND**	**ND**	**ND**	**150**	**ND**	**150**	**ND**	**21**	**100**	**55**	**143**	**ND**	**ND**		
Average Concentration *	**11**	**53**	**12**	**12**	**25**	**25**	**56**	**50**	**34**	**12**	**24**	**51**	**48**	**32**	**0.47**	**0.095**		
Median Concentration *	**10**	**55**	**12.5**	**12.5**	**25**	**25**	**50**	**50**	**25**	**12.5**	**25**	**50**	**50**	**25**	**0.5**	**0.1**		
Standard Deviation *	**7.1**	**29**	**0.77**	**0.77**	**0**	**0**	**21**	**0**	**28**	**0.77**	**3.9**	**12**	**6.6**	**26**	**0.077**	**0.015**		
95% UCL (Student's-t) *	**12.95**	**60.29**	**12.49**	**12.49**	**25**	**25**	**62.25**	**50**	**42.77**	**12.49**	**25.06**	**54.38**	**50.52**	**39.72**	**0.499**	**0.0997**		
% of Detects	**96**	**100**	**0**	**0**	**0**	**0**	**7**	**0**	**7**	**0**	**3**	**7**	**3**	**7**	**0**	**0**		
% of Non-Detects	**4**	**0**	**100**	**100**	**100**	**100**	**93**	**100**	**93**	**100**	**97**	**93**	**97**	**93**	**100**	**100**		

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				BTEX					MAH										Halogenated	
				Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.2	0.1	0.3	1	1	1	1	1	1	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)				65	25			15											
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)				288	600			1,000								60			
NSW 2014 General Solid Waste SCC1 (with leached)				518	1,080			1,800								108			
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<1	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.1	<0.1	<0.2	<0.1	<0.3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				BTEX					MAH									Halogenated	
				Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	1,2-dibromoethane	Bromomethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	<0.5	<1	<2	<1	<1	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.5	<1	<2	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.5	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**30**	**30**	**30**	**30**	**29**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.1**	**<0.1**	**<0.2**	**<0.1**	**<0.3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.5**	**<1**	**<2**	**<1**	**<3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.23**	**0.46**	**0.91**	**0.46**	**1.3**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Median Concentration *	**0.25**	**0.5**	**1**	**0.5**	**1.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Standard Deviation *	**0.061**	**0.14**	**0.27**	**0.14**	**0.49**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.249**	**0.498**	**0.995**	**0.498**	**1.412**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Hydrocarbons																
				Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)						200	600	26	24		14				10				
NSW 2014 General Solid Waste SCC1 (with leached)						360	1,080	46.8	43.2		25				18				
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Hydrocarbons															
				Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**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**
Median Concentration *	**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**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**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**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Chlorinated Hydrocarbons																
				Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)						10			120						10	14			4
NSW 2014 General Solid Waste SCC1 (with leached)						18			126						18	25.2			7.2
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Chlorinated Hydrocarbons																
				Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**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**
Median Concentration *	**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**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**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**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Halogenated Benzenes										Benzo(b+j+k)fluoranthene	Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)
				1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene						
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	µg/L	mg/kg	µg/L
EQL				1	1	1	1	1	1	1	1	1	0.1	0.2	0.002	0.1	1	0.1	1
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)						86		150				2,000							
NSW 2014 General Solid Waste SCC1 (with leached)						155		270				3,600							
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.3	-	<0.1	-	<0.1	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	0.5	-	<0.1	-	<0.1	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.3	-	<0.1	-	<0.1	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	0.7	-	<0.1	-	<0.1	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	1	-	<0.1	-	0.2	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	<1	-	<1

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Halogenated Benzenes															
				1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Benzo(b+j+k)fluoranthene (filtered)	Acenaphthene	Acenaphthene (filtered)	Acenaphthylene	Acenaphthylene (filtered)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	µg/L	mg/kg	µg/L
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	2.4	-	0.4	-	0.3	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	<0.002	-	<1	-	<1
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	0.4	-	<0.1	-	<0.1	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	<0.1	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	0.6	-	<0.1	-	<0.1	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	<0.2	-	<0.1	-	<0.1	-
Statistics																			
Number of Results				**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**10**	**44**	**2**	**47**	**2**	**47**	**2**
Number of Detects				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**1**	**0**	**2**	**0**
Minimum Concentration				**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.1**	**0.2**	**<0.002**	**<0.1**	**<1**	**<0.1**	**<1**
Minimum Detect				**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0.2**	**ND**	**0.4**	**ND**	**0.2**	**ND**
Maximum Concentration				**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.1**	**2.4**	**<0.002**	**<0.5**	**<1**	**<0.5**	**<1**
Maximum Detect				**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**2.4**	**ND**	**0.4**	**ND**	**0.3**	**ND**
Average Concentration *				**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.05**	**0.27**	**0.001**	**0.07**	**0.5**	**0.071**	**0.5**
Median Concentration *				**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.05**	**0.1**	**0.001**	**0.05**	**0.5**	**0.05**	**0.5**
Standard Deviation *				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.38**	**0**	**0.07**	**0**	**0.063**	**0**
95% UCL (Student's-t) *				**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.05**	**0.372**	**0.001**	**0.0873**	**0.5**	**0.0868**	**0.5**
% of Detects				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43**	**0**	**2**	**0**	**4**	**0**
% of Non-Detects				**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**57**	**100**	**98**	**100**	**96**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				PAH															
				Anthracene	Anthracene (filtered)	Benz(a)anthracene	Benz(a)anthracene (filtered)	Benzo(a) pyrene	Benzo(a) pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)
				mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L
EQL				0.1	1	0.1	1	0.05	1	0.5	0.1	1	0.5	0.1	1	0.1	1	0.1	1
NSW 2014 Excavated Natural Material (Absolute Max)								1											
NSW 2014 Excavated Natural Material (Max Average)								0.5											
NSW 2014 General Solid Waste CT1 (No Leaching)								0.8											
NSW 2014 General Solid Waste SCC1 (with leached)								10											
NSW 2014 General Solid Waste TCLP1 (leached)									40										
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	<0.1	-	0.2	-	0.2	-	-	0.1	-	-	0.1	-	<0.1	-	0.3	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<0.1	-	0.1	-	0.1	-	-	0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	<0.1	-	0.2	-	0.3	-	-	0.2	-	-	0.2	-	<0.1	-	0.5	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	<0.1	-	0.1	-	0.1	-	-	0.1	-	-	<0.1	-	<0.1	-	0.2	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	<0.1	-	0.1	-	0.2	-	-	0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	0.2	-	0.1	-	0.1	-	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	<0.1	-	0.2	-	0.2	-	-	0.2	-	-	0.2	-	<0.1	-	0.3	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	<0.1	-	0.2	-	0.3	-	-	0.2	-	-	0.3	-	<0.1	-	0.7	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	<0.1	-	0.1	-	0.1	-	-	0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<0.1	-	0.1	-	0.1	-	-	0.1	-	-	0.2	-	<0.1	-	0.2	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<0.1	-	0.3	-	0.3	-	-	0.2	-	-	0.3	-	<0.1	-	0.7	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	0.1	-	-	<0.1	-	-	<0.1	-	<0.1	-	0.1	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	<0.1	-	0.3	-	0.4	-	-	0.4	-	-	0.4	-	<0.1	-	0.4	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	<0.1	-	0.2	-	0.2	-	-	0.2	-	-	0.2	-	<0.1	-	0.3	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	0.09	-	-	<0.1	-	-	0.1	-	<0.1	-	0.1	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	<0.1	-	0.1	-	0.2	-	-	0.2	-	-	0.2	-	<0.1	-	0.2	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	0.1	-	-	<0.1	-	-	<0.1	-	<0.1	-	0.2	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	0.07	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	-	<0.5	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	<0.1	-	0.1	-	0.1	-	-	0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	0.2	-	0.2	-	0.2	-	-	0.1	-	-	0.2	-	<0.1	-	0.6	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	0.08	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	<0.1	-	0.4	-	0.4	-	-	0.3	-	-	0.4	-	<0.1	-	0.5	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	0.2	-	0.9	-	0.85	-	-	0.5	-	-	1	-	<0.1	-	1.6	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	<1	-	<1	-	<1	-	-	<1	-	-	<1	-	<1	-	<1

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				PAH															
				Anthracene	Anthracene (filtered)	Benz(a)anthracene	Benz(a)anthracene (filtered)	Benzo(a) pyrene	Benzo(a) pyrene (filtered)	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene (filtered)	Benzo(k)fluoranthene	Chrysene	Chrysene (filtered)	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene (filtered)	Fluoranthene	Fluoranthene (filtered)
				mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	1.3	-	2.0	-	1.7	-	-	0.9	-	-	1.9	-	0.2	-	4.9	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	<1	-	<1	-	<1	-	-	<1	-	-	<1	-	<1	-	<1
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	0.2	-	0.3	-	0.2	-	-	0.2	-	-	0.4	-	<0.1	-	0.7	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	<0.1	-	<0.1	-	0.06	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	<0.1	-	<0.1	-	0.09	-	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	<0.1	-	<0.1	-	0.07	-	-	<0.1	-	-	0.1	-	<0.1	-	0.1	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	-	0.4	-	0.4	-	-	0.3	-	-	0.4	-	<0.1	-	0.4	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	-	0.1	-	0.1	-	-	<0.1	-	-	0.1	-	<0.1	-	0.2	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	0.2	-	<0.1	-	<0.1	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.05	-	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	-
Statistics																			
Number of Results				47	2	47	2	47	2	3	47	2	3	47	2	47	2	47	2
Number of Detects				5	0	22	0	30	0	0	20	0	0	26	0	1	0	27	0
Minimum Concentration				<0.1	<1	0.1	<1	<0.05	<1	<0.5	0.1	<1	<0.5	0.1	<1	<0.1	<1	0.1	<1
Minimum Detect				0.2	ND	0.1	ND	0.06	ND	ND	0.1	ND	ND	0.1	ND	0.2	ND	0.1	ND
Maximum Concentration				1.3	<1	2	<1	1.7	<1	<0.5	0.9	<1	<0.5	1.9	<1	<0.5	<1	4.9	<1
Maximum Detect				1.3	ND	2	ND	1.7	ND	ND	0.9	ND	ND	1.9	ND	0.2	ND	4.9	ND
Average Concentration *				0.1	0.5	0.18	0.5	0.18	0.5	0.25	0.14	0.5	0.25	0.2	0.5	0.066	0.5	0.34	0.5
Median Concentration *				0.05	0.5	0.1	0.5	0.1	0.5	0.25	0.05	0.5	0.25	0.1	0.5	0.05	0.5	0.2	0.5
Standard Deviation *				0.19	0	0.31	0	0.27	0	0	0.15	0	0	0.3	0	0.053	0	0.73	0
95% UCL (Student's-t) *				0.148	0.5	0.258	0.5	0.248	0.5	0.25	0.177	0.5	0.25	0.273	0.5	0.079	0.5	0.52	0.5
% of Detects				11	0	47	0	64	0	0	43	0	0	55	0	2	0	57	0
% of Non-Detects				89	100	53	100	36	100	100	57	100	100	45	100	98	100	43	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)	Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)
				mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L
EQL				0.1	1	0.1	1	0.1	1	0.1	1	0.1	1	0.5	0.5	0.5	0.5	0.05	
NSW 2014 Excavated Natural Material (Absolute Max)																	40		
NSW 2014 Excavated Natural Material (Max Average)																	20		
NSW 2014 General Solid Waste CT1 (No Leaching)																	200		
NSW 2014 General Solid Waste SCC1 (with leached)																	200		
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.3	-	<0.5	<0.5	<0.5	-	1.7	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.1	-
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	<0.1	-	0.1	-	<0.1	-	0.4	-	0.5	-	<0.5	<0.5	<0.5	-	2.9	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.74	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.2	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	<0.1	-	0.1	-	<0.1	-	0.1	-	0.4	-	<0.5	<0.5	<0.5	-	2.1	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.6	-	<0.5	<0.5	<0.5	-	2.9	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.89	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<0.1	-	0.1	-	<0.1	-	0.2	-	0.6	-	<0.5	<0.5	<0.5	-	3.2	-
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.4	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	<0.1	-	0.2	-	<0.1	-	0.2	-	0.5	-	0.5	0.6	<0.5	-	3.4	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	<0.1	-	0.1	-	<0.1	-	0.2	-	0.3	-	<0.5	<0.5	<0.5	-	2.1	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.5	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	1.4	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.4	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	0.07	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	0.6	1.2	<0.5	<0.5	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.3	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	0.1	-	<0.1	-	0.2	-	0.9	-	0.6	-	<0.5	<0.5	<0.5	-	3.4	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	0.08	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	<0.1	-	0.2	-	<0.1	-	0.3	-	0.6	-	0.6	0.6	0.5	-	3.7	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	<0.1	-	0.4	-	<0.1	-	1.0	-	1.6	-	1.2	1.2	1.1	-	9.6	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-	0[#1]

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Fluorene	Fluorene (filtered)	Indeno(1,2,3-c,d)pyrene	Indeno(1,2,3-c,d)pyrene (filtered)	Naphthalene	Naphthalene (filtered)	Phenanthrene	Phenanthrene (filtered)	Pyrene	Pyrene (filtered)	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)	PAHs (Sum of positives) (filtered)
				mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	0.3	-	0.7	-	0.8	-	5.7	-	4.6	-	2.4	2.4	2.4	-	28	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	<1	-	<1	-	2	-	2	-	<1	-	-	-	-	-	0.0031
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	<0.1	-	0.1	-	0.1	-	1	-	0.7	-	<0.5	<0.5	<0.5	-	4.2	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	0.1	-	<0.5	<0.5	<0.5	-	0.2	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	0.1	-	0.2	-	<0.5	<0.5	<0.5	-	0.61	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	0.61	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	-	0.2	-	<0.1	-	<0.1	-	0.5	-	0.6	0.6	0.5	-	3.2	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	0.2	-	0.2	-	<0.5	<0.5	<0.5	-	1.1	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	<0.1	-	<0.1	-	0.1	-	0.3	-	<0.1	-	<0.5	<0.5	<0.5	-	0.58	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	0.2	-	<0.1	-	<0.1	-	0.4	-	<0.1	-	<0.5	<0.5	<0.5	-	0.81	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.5	<0.5	<0.5	-	<0.05	-

Statistics

Number of Results	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**2**	**47**	**47**	**47**	**3**	**44**	**2**
Number of Detects	**3**	**0**	**10**	**0**	**4**	**1**	**20**	**1**	**28**	**0**	**8**	**8**	**4**	**0**	**32**	**2**
Minimum Concentration	**0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**	**0.1**	**<1**	**0.5**	**<0.5**	**0.5**	**<0.5**	**<0.05**	**0**
Minimum Detect	**0.1**	**ND**	**0.1**	**ND**	**0.1**	**2**	**0.1**	**2**	**0.1**	**ND**	**0.5**	**0.6**	**0.5**	**ND**	**0.07**	**0**
Maximum Concentration	**<0.5**	**<1**	**0.7**	**<1**	**0.8**	**2**	**5.7**	**2**	**4.6**	**<1**	**2.4**	**2.4**	**2.4**	**<0.5**	**28**	**0.0031**
Maximum Detect	**0.3**	**ND**	**0.7**	**ND**	**0.8**	**2**	**5.7**	**2**	**4.6**	**ND**	**2.4**	**2.4**	**2.4**	**ND**	**28**	**0.0031**
Average Concentration *	**0.072**	**0.5**	**0.099**	**0.5**	**0.084**	**1.2**	**0.3**	**1.2**	**0.34**	**0.5**	**0.36**	**0.4**	**0.32**	**0.25**	**1.9**	**0.0016**
Median Concentration *	**0.05**	**0.5**	**0.05**	**0.5**	**0.05**	**1.25**	**0.05**	**1.25**	**0.2**	**0.5**	**0.25**	**0.25**	**0.25**	**0.25**	**0.775**	**0.00155**
Standard Deviation *	**0.063**	**0**	**0.12**	**0**	**0.12**	**1.1**	**0.84**	**1.1**	**0.69**	**0**	**0.35**	**0.41**	**0.34**	**0**	**4.4**	**0.0022**
95% UCL (Student's-t) *	**0.0878**	**0.5**	**0.128**	**0.5**	**0.113**	**5.985**	**0.504**	**5.985**	**0.511**	**0.5**	**0.444**	**0.498**	**0.407**	**0.25**	**3.051**	**0.0113**
% of Detects	**6**	**0**	**21**	**0**	**9**	**50**	**43**	**50**	**60**	**0**	**17**	**17**	**9**	**0**	**73**	**100**
% of Non-Detects	**94**	**100**	**79**	**100**	**91**	**50**	**57**	**50**	**40**	**100**	**83**	**83**	**91**	**100**	**27**	**0**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Phenols	PCBs														
				Phenolics Total	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)												50							
NSW 2014 General Solid Waste SCC1 (with leached)												50							
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Phenols	PCBs														
				Phenolics Total	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**8**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<5**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<5**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**2.5**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Organochlorine Pesticides																
				DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)																			4
NSW 2014 General Solid Waste SCC1 (with leached)																			7.5
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Organochlorine Pesticides																
				DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Median Concentration *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Organophosphorous Pesticides									Perfluoroalkyl Sulfonic Acids						
				Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg
EQL				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0001	0.1	0.1	0.1	0.2	0.1	0.0001
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)																			
NSW 2014 General Solid Waste SCC1 (with leached)																		1,800	
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<5	<0.005
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<5	<0.005
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5	<5	<5	<5	<0.005
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	11	0.011
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<0.1	<0.005
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<0.1	<0.005
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Organophosphorous Pesticides									Perfluoroalkyl Sulfonic Acids						
				Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<0.1	<0.005
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	<0.005	<5	<5	<5	<5	<5	<0.005
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	10	10	10	10	10	10	10	10	10	8	8	8	8	8	8	8		
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5	<5	<5	<0.1	<0.005		
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	0.011		
Maximum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.005	<5	<5	<5	<5	11	0.011		
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	0.011		
Average Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5	2.5	2.5	2.6	0.0036		
Median Concentration *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5	2.5	2.5	2.5	0.0025		
Standard Deviation *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	0.003		
95% UCL (Student's-t) *	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0025	2.5	2.5	2.5	2.5	5.047	0.00558		
% of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12		
% of Non-Detects	100	100	100	100	100	100	100	100	100	100	100	100	100	100	88	88		

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Perfluoroalkyl Carboxylic Acid											Perfluoroalkyl Sulfonamides				
				Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfon amidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanes ulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctane sulfonamidoacetic acid (NMeFOSAA)
				µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
EQL				0.1	0.2	0.5	0.1	0.5	0.1	0.2	5	0.5	0.5	0.0001	1	0.2	5	1	0.2
NSW 2014 Excavated Natural Material (Absolute Max)																			
NSW 2014 Excavated Natural Material (Max Average)																			
NSW 2014 General Solid Waste CT1 (No Leaching)																			
NSW 2014 General Solid Waste SCC1 (with leached)														18					
NSW 2014 General Solid Waste TCLP1 (leached)																			
Field ID	**Parent Sample**	**Date**	**Matrix Type**																
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

				Perfluoroalkyl Carboxylic Acid											Perfluoroalkyl Sulfonamides				
				Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
				µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.005	<5	<5	<5	<5	<5
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics

Number of Results	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<0.005**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<0.005**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**	**<5**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**0.0025**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
Median Concentration *	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**0.0025**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**0.0025**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Soil and TCLP Analytical Results (Waste Classification)

					Fluorotelomer Sulfonic Acids				
				N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
				mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
EQL				0.001	1	0.2	0.0002	0.1	0.0001
NSW 2014 Excavated Natural Material (Absolute Max)									
NSW 2014 Excavated Natural Material (Max Average)									
NSW 2014 General Solid Waste CT1 (No Leaching)									
NSW 2014 General Solid Waste SCC1 (with leached)									
NSW 2014 General Solid Waste TCLP1 (leached)									
Field ID	**Parent Sample**	**Date**	**Matrix Type**						
EPIC_NS_BH03_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH03_0-0.1		**1/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH04_0.1-0.2		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH04_0.9-1		**1/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH05_0.5-0.6		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC01	**EPIC_NS_BH05_0.5-0.6**	**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC02	**EPIC_NS_BH05_0.5-0.6**	**2/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH05_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH06_0.9-1.0		**2/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH06_0-0.1	**[TRIPLICATE]**	**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH07_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH08_0.8-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC03	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC04	**EPIC_NS_BH08_0.8-1.0**	**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH08_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH09_0.7-0.8		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH09_0.9-1.0		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH09_0-0.1		**1/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH10_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH11_0.6-0.7		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH11_0-0.1		**1/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH12_0.1-0.2		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH12_0.5-0.6		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH13_0.9-1.0		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH13_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH14_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH14_1.0-1.2		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC05	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_QC06	**EPIC_NS_BH14_1.0-1.2**	**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH14_4.0-4.1		**4/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH14_6.0-6.1		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH15_0-0.1		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH15_1.4-1.5		**4/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH15_2.9-3.0		**4/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH16_0.5-0.6		**3/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-
EPIC_NS_BH16_2.0-2.1		**3/02/2022**	**Soil**	-	-	-	-	-	-

Table T2: Soil and TCLP Analytical Results (Waste Classification)

						Fluorotelomer Sulfonic Acids			
				N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
				mg/kg	µg/kg	µg/kg	mg/kg	µg/kg	mg/kg
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH16_4.0-4.1	[TRIPLICATE]	3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH16_5.9-6.0		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH17_0-0.1		4/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH17_2.0-2.1		4/02/2022	Soil	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH18_0.5-0.6		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH18_3.0-3.1		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH18_5.0-5.1		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH19_0-0.1		3/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_0.5-0.6		2/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_0-0.01		2/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_10-10.1		2/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_15.15.1		2/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	-	-	-	-	-	-
EPIC_NS_BH20_3.0-3.1		2/02/2022	Soil	<0.005	<5	<5	<0.005	<5	<0.005
EPIC_NS_BH20_6.0-6.1		2/02/2022	Soil	-	-	-	-	-	-

Statistics

Number of Results	**8**	**8**	**8**	**8**	**8**	**8**
Number of Detects	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration	**<0.005**	**<5**	**<5**	**<0.005**	**<5**	**<0.005**
Minimum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration	**<0.005**	**<5**	**<5**	**<0.005**	**<5**	**<0.005**
Maximum Detect	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *	**0.0025**	**2.5**	**2.5**	**0.0025**	**2.5**	**0.0025**
Median Concentration *	**0.0025**	**2.5**	**2.5**	**0.0025**	**2.5**	**0.0025**
Standard Deviation *	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *	**0.0025**	**2.5**	**2.5**	**0.0025**	**2.5**	**0.0025**
% of Detects	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Absolute Max)
NSW EPA, November 2014, NSW 2014 Excavated Natural Material (Max Average)
NSW EPA, November 2014, NSW 2014 General Solid Waste CT1 (No Leaching)
NSW EPA, November 2014, NSW 2014 General Solid Waste SCC1 (with leached)
NSW EPA, November 2014, NSW 2014 General Solid Waste TCLP1 (leached)

Table T2: Groundwater Analytical Results

				NA	Physico-Chemical & Major Ions														Inorganics			
				Formaldehyde	pH (Lab)	Chloride	Fluoride	Alkalinity (Hydroxide) as CaCO3	Carbonate as CaCO3	Bicarbonate as CaCO3	Alkalinity (total) as CaCO3	Calcium (filtered)	Magnesium (filtered)	Sodium (filtered)	Potassium (filtered)	Ionic Balance	Sulphate	Hardness (filtered)	Electrical Conductivity (Non Compensated)	Arsenic (filtered)	Cadmium (filtered)
				mg/L	-	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	%	mg/L	mgCaCO3/L	µS/cm	mg/L	mg/L
EQL				0.1		1	0.1	5	5	5	5	0.5	0.5	0.5	0.5		1		1	0.001	0.0001
Recreational (10 x ADWG 2018 Health)				5			15													0.1	0.02
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs																					0.0055
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																					
PFAS NEMP 2020 Interim Marine 95%																					
PFAS NEMP 2020 Interim Marine 99%																					
Field ID	**Parent Sample**	**Date**	**Matrix Type**																		
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	6.6	160	0.4	<5	<5	290	290	58	17	100	5	-14	69	210	1,100	<0.001	<0.0001
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	6.2	1,500	0.9	<5	<5	270	270	24	82	1,100	15	0	380	400	5,400	<0.001	0.0001
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	5.5	2,100	0.6	<5	<5	50	50	21	140	1,300	17	-9.0	930	630	7,800	<0.001	0.0010
Statistics																					
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**4**	**4**
Number of Detects				**1**	**3**	**3**	**3**	**0**	**0**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**0**	**2**
Minimum Concentration				**<0.1**	**5.5**	**160**	**0.4**	**<5**	**<5**	**50**	**50**	**21**	**17**	**100**	**5**	**-14**	**69**	**210**	**1,100**	**<0.001**	**0.0001**
Minimum Detect				**3**	**5.5**	**160**	**0.4**	**ND**	**ND**	**50**	**50**	**21**	**17**	**100**	**5**	**-14**	**69**	**210**	**1,100**	**ND**	**0.0001**
Maximum Concentration				**3**	**6.6**	**2,100**	**0.9**	**<5**	**<5**	**290**	**290**	**58**	**140**	**1,300**	**17**	**0**	**930**	**630**	**7,800**	**<0.001**	**0.001**
Maximum Detect				**3**	**6.6**	**2,100**	**0.9**	**ND**	**ND**	**290**	**290**	**58**	**140**	**1,300**	**17**	**0**	**930**	**630**	**7,800**	**ND**	**0.001**
Average Concentration *				**1**	**6.1**	**1,253**	**0.63**	**2.5**	**2.5**	**203**	**203**	**34**	**80**	**833**	**12**	**-7.7**	**460**	**413**	**4,767**	**0.0005**	**0.00031**
Median Concentration *				**0.05**	**6.2**	**1,500**	**0.6**	**2.5**	**2.5**	**270**	**270**	**24**	**82**	**1,100**	**15**	**-9**	**380**	**400**	**5,400**	**0.0005**	**0.0001**
Standard Deviation *				**1.7**	**0.56**	**993**	**0.25**	**0**	**0**	**133**	**133**	**21**	**62**	**643**	**6.4**	**7.1**	**436**	**210**	**3,395**	**0**	**0.00046**
95% UCL (Student's-t) *				**3.905**	**7.039**	**2,928**	**1.058**	**2.5**	**2.5**	**427.8**	**427.8**	**68.98**	**183.4**	**1,917**	**23.17**	**4.294**	**1,195**	**767.9**	**10,489**	**0.0005**	**0.00085253**
% of Detects				**33**	**100**	**100**	**100**	**0**	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**0**	**50**
% of Non-Detects				**67**	**0**	**0**	**0**	**100**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**50**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	Metals							TRH							TPH			
				Formaldehyde	Chromium (III+VI) (filtered)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	0.001	0.001	0.001	0.00005	0.001	0.001	10	10	50	50	100	100	50	10	50	100	100
Recreational (10 x ADWG 2018 Health)				5		20	0.1	0.01	0.2												
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs						0.0013	0.0044	0.0004	0.07	0.015											
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																					
PFAS NEMP 2020 Interim Marine 95%																					
PFAS NEMP 2020 Interim Marine 99%																					
Field ID	**Parent Sample**	**Date**	**Matrix Type**																			
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<0.001	0.002	<0.001	<0.00005	0.008	0.025	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	<0.001	0.002	<0.001	<0.0001	0.004	0.020	<20	<20	<50	<50	<100	<100	<100	<20	<50	<100	<100
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<0.001	0.003	<0.001	<0.00005	0.032	0.046	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<0.001	0.003	<0.001	<0.00005	0.18	0.27	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100	<100
Statistics																					
Number of Results				**3**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Number of Detects				**1**	**0**	**4**	**0**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<0.001**	**0.002**	**<0.001**	**<0.00005**	**0.004**	**0.02**	**<10**	**<10**	**<50**	**<50**	**<100**	**<100**	**<50**	**<10**	**<50**	**<100**	**<100**
Minimum Detect				**3**	**ND**	**0.002**	**ND**	**ND**	**0.004**	**0.02**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<0.001**	**0.003**	**<0.001**	**<0.0001**	**0.18**	**0.27**	**<20**	**<20**	**<50**	**<50**	**<100**	**<100**	**<100**	**<20**	**<50**	**<100**	**<100**
Maximum Detect				**3**	**ND**	**0.003**	**ND**	**ND**	**0.18**	**0.27**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.0005**	**0.0025**	**0.0005**	**0.000031**	**0.056**	**0.09**	**6.2**	**6.2**	**25**	**25**	**50**	**50**	**31**	**6.2**	**25**	**50**	**50**
Median Concentration *				**0.05**	**0.0005**	**0.0025**	**0.0005**	**0.000025**	**0.02**	**0.0355**	**5**	**5**	**25**	**25**	**50**	**50**	**25**	**5**	**25**	**50**	**50**
Standard Deviation *				**1.7**	**0**	**0.00058**	**0**	**0.000012**	**0.084**	**0.12**	**2.5**	**2.5**	**0**	**0**	**0**	**0**	**12**	**2.5**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**0.0005**	**0.00318**	**0.0005**	**0.000045959**	**0.154**	**0.232**	**9.192**	**9.192**	**25**	**25**	**50**	**50**	**45.96**	**9.192**	**25**	**50**	**50**
% of Detects				**33**	**0**	**100**	**0**	**0**	**100**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**0**	**100**	**100**	**0**	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA		BTEX							MAH								
				Formaldehyde	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene
				mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	50	0.001	1	1	1	2	1	3	1	1	1	1	1	1	1	1	1
Recreational (10 x ADWG 2018 Health)				5			10	8,000	3,000			6000								300	
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs						0.07	700	180	80						30						
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay							30,000 | 30,000 | 35,000														
PFAS NEMP 2020 Interim Marine 95%																					
PFAS NEMP 2020 Interim Marine 99%																					
Field ID	**Parent Sample**	**Date**	**Matrix Type**																		
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<50	<0.001	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	<100	<0.01	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<50	<0.001	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<50	<0.001	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1
Statistics																					
Number of Results				**3**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**1**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<50**	**<0.001**	**<1**	**<1**	**<1**	**<2**	**<1**	**<3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<100**	**<0.01**	**<1**	**<1**	**<1**	**<2**	**<1**	**<3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**31**	**0.0016**	**0.5**	**0.5**	**0.5**	**1**	**0.5**		**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Median Concentration *				**0.05**	**25**	**0.0005**	**0.5**	**0.5**	**0.5**	**1**	**0.5**	**1.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Standard Deviation *				**1.7**	**12**	**0.0022**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**45.96**	**0.00427**	**0.5**	**0.5**	**0.5**	**1**	**0.5**		**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	Halogenated Hydrocarbons																
				Formaldehyde	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	1	10	10	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Recreational (10 x ADWG 2018 Health)				5	10	10								300				30					
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs										270	400	1,900		700				1,900	900	1,100			
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																							
PFAS NEMP 2020 Interim Marine 95%																							
PFAS NEMP 2020 Interim Marine 99%																							
Field ID	**Parent Sample**	**Date**	**Matrix Type**																				
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<1	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<1	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<1	<10	<10	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Statistics																							
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<1**	**<10**	**<10**	**<10**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<1**	**<10**	**<10**	**<10**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.5**	**5**	**5**	**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**
Median Concentration *				**0.05**	**0.5**	**5**	**5**	**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**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**0.5**	**5**	**5**	**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**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health

ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs

HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%

HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%

NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	Chlorinated Hydrocarbons																		
				Formaldehyde	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	1	1	1	1	10	1	10	1	1	1	1	1	1	1	1	10	1	1
Recreational (10 x ADWG 2018 Health)				5			30								7		500			3		
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs							240			770						330	70			100		80
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																						
PFAS NEMP 2020 Interim Marine 95%																						
PFAS NEMP 2020 Interim Marine 99%																						
Field ID	**Parent Sample**	**Date**	**Matrix Type**																			
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<1	<1	<1	<1	<10	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
Statistics																						
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<1**	**<1**	**<1**	**<1**	**<10**	**<1**	**<10**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<10**	**<1**	**<1**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<1**	**<1**	**<1**	**<1**	**<10**	**<1**	**<10**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<10**	**<1**	**<1**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**0.5**
Median Concentration *				**0.05**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**0.5**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**5**	**0.5**	**0.5**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	Halogenated Benzenes								PA									
				Formaldehyde	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	2-chlorotoluene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L
EQL				0.1	1	1	1	1	1	1	1	0.2	0.002	1	1	1	1	1	0.001	1	1	1
Recreational (10 x ADWG 2018 Health)				5	15000		400				3000							0.1				
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs											55	0.1				0.4		0.2				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																						
PFAS NEMP 2020 Interim Marine 95%																						
PFAS NEMP 2020 Interim Marine 99%																						
Field ID	**Parent Sample**	**Date**	**Matrix Type**																			
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.2	<0.002	<1	<1	<1	<1	<1	-	<1	-	<1
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<0.001	<1	<1	<1
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.2	<0.002	<1	<1	<1	<1	<1	-	<1	-	<1
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<1	<1	<1	<1	<1	<1	<1	<0.2	<0.002	<1	<1	<1	<1	<1	-	<1	-	<1
Statistics																						
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**	**4**	**1**	**4**	**1**	**4**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.2**	**<0.002**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.001**	**<1**	**<1**	**<1**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.2**	**<0.002**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.001**	**<1**	**<1**	**<1**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.001**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**		**0.5**		**0.5**
Median Concentration *				**0.05**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.001**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0005**	**0.5**	**0.5**	**0.5**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**
95% UCL (Student's-t) *				**3.905**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.1**	**0.001**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**		**0.5**		**0.5**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	H															
				Formaldehyde	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ	PAHs (Sum of total)	PAHs (Sum of positives)	4,4-DDE	a-BHC	Aldrin	b-BHC	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	1	1	1	1	1	1	1	0.005	1	0.001	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Recreational (10 x ADWG 2018 Health)				5																		
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs						1.4			70	2												
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																						
PFAS NEMP 2020 Interim Marine 95%																						
PFAS NEMP 2020 Interim Marine 99%																						
Field ID	**Parent Sample**	**Date**	**Matrix Type**																			
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.005	-	0[#1]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<1	<1	<1	<1	<1	<1	<1	<0.005	-	0[#1]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<1	<1	<1	<1	<1	<1	<1	<0.005	-	0[#1]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Statistics																						
Number of Results				**3**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**3**	**1**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.005**	**<1**	**0**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<0.005**	**<1**	**0**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**0**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0025**		**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Median Concentration *				**0.05**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0025**	**0.5**	**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.0025**		**0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**0**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	Organochlorine Pesticides											Organophosphorous Pesticid						
				Formaldehyde	DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Azinophos methyl	Bromophos-ethyl	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Dimethoate
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L
EQL				0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0002	0.2	0.2	0.2
Recreational (10 x ADWG 2018 Health)				5	90							100	3			300	100	100		40	50	70
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs										0.008								0.009				
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																						
PFAS NEMP 2020 Interim Marine 95%																						
PFAS NEMP 2020 Interim Marine 99%																						
Field ID	**Parent Sample**	**Date**	**Matrix Type**																			
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.0002	<0.2	<0.2	<0.2
Statistics																						
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.0002**	**<0.2**	**<0.2**	**<0.2**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.0002**	**<0.2**	**<0.2**	**<0.2**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0001**	**0.1**	**0.1**	**0.1**
Median Concentration *				**0.05**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0001**	**0.1**	**0.1**	**0.1**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
95% UCL (Student's-t) *				**3.905**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.0001**	**0.1**	**0.1**	**0.1**
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

				NA	les					Perfluoroalkyl Sulfonic Acids							Perfluor				
				Formaldehyde	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecanesulfonic acid (PFDS)	Sum of PFHxS and PFOS	Perfluorooctanesulfonic acid (PFOS)	Perfluorohexanoic acid (PFHxA)	Perfluorobutanoic acid (PFBA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorodecanoic acid (PFDA)
				mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.1	0.2	0.2	0.2	0.2	0.2	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.05	0.01	0.02
Recreational (10 x ADWG 2018 Health)				5	40	70	700	200							0.7						
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs																					
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																					
PFAS NEMP 2020 Interim Marine 95%																0.13					
PFAS NEMP 2020 Interim Marine 99%																0.00023					
Field ID	**Parent Sample**	**Date**	**Matrix Type**																		
Epic_NS_MW01	**SMW_BH009s**	**2/02/2022**	**Water**	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_WQC01	**SMW_BH009s**	**2/02/2022**	**Water**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	**SMW_BH073**	**2/02/2022**	**Water**	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.02	<0.05	<0.01	<0.02
Epic_NS_MW03	**SMW_BH711s**	**2/02/2022**	**Water**	3.0	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-
Statistics																					
Number of Results				**3**	**3**	**3**	**3**	**3**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Number of Detects				**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Minimum Concentration				**<0.1**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.01**	**<0.01**	**<0.01**	**<0.01**	**<0.02**	**<0.01**	**<0.01**	**<0.01**	**<0.02**	**<0.05**	**<0.01**	**<0.02**
Minimum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Maximum Concentration				**3**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.2**	**<0.01**	**<0.01**	**<0.01**	**<0.01**	**<0.02**	**<0.01**	**<0.01**	**<0.01**	**<0.02**	**<0.05**	**<0.01**	**<0.02**
Maximum Detect				**3**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Average Concentration *				**1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**												
Median Concentration *				**0.05**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.005**	**0.005**	**0.005**	**0.005**	**0.01**	**0.005**	**0.005**	**0.005**	**0.01**	**0.025**	**0.005**	**0.01**
Standard Deviation *				**1.7**	**0**	**0**	**0**	**0**	**0**												
95% UCL (Student's-t) *				**3.905**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**												
% of Detects				**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% of Non-Detects				**67**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T2: Groundwater Analytical Results

	NA	oalkyl Carboxylic Acid						Perfluoroalkyl Sulfonamides							Fluorotelomer Sulfonic Acids			
	Formaldehyde	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorooctanoic acid (PFOA)	N-Ethyl perfluorooctane sulfonamide (NEtFOSA)	N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	N-Methyl perfluorooctane sulfonamide (NMeFOSA)	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	Perfluorooctane sulfonamide (PFOSA)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.1	0.01	0.02	0.5	0.1	0.02	0.01	0.1	0.02	0.5	0.05	0.02	0.05	0.1	0.02	0.02	0.01	0.01
Recreational (10 x ADWG 2018 Health)	5						5.6											
ANZG (2018) Marine Water 95% LOSP Toxicant DGVs																		
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Clay																		
PFAS NEMP 2020 Interim Marine 95%							220											
PFAS NEMP 2020 Interim Marine 99%							19											

Field ID	Parent Sample	Date	Matrix Type																
Epic_NS_MW01	SMW_BH009s	2/02/2022	Water	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPIC_NS_WQC01	SMW_BH009s	2/02/2022	Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epic_NS_MW02	SMW_BH073	2/02/2022	Water	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.02	<0.01	<0.01
Epic_NS_MW03	SMW_BH711s	2/02/2022	Water	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Statistics																		
Number of Results	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detects	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.02	<0.01	<0.01
Minimum Detect	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	3	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.02	<0.01	<0.01
Maximum Detect	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration *	1																	
Median Concentration *	0.05	0.005	0.01	0.25	0.05	0.01	0.005	0.05	0.01	0.25	0.025	0.01	0.025	0.05	0.01	0.01	0.005	0.005
Standard Deviation *	1.7																	
95% UCL (Student's-t) *	3.905																	
% of Detects	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Non-Detects	67	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* A Non Detect Multiplier of 0.5 has been applied.

Environmental Standards

NHMRC, May 2019, ADWG 2018 Health
ANZG (2018), March 2021, Marine Water 95% LOSP Toxicant DGVs
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 95%
HEPA, January 2020, PFAS NEMP 2020 Interim Marine 99%
NEPM 2013 Table 1A(4) Comm/Ind HSL D GW Vapour Intrusion Clay

Table T4: QA/QC - Soil RPDs

Field or Interlab Duplicates

				NA	Inorganics	Metals								TRH						
				Moisture Content	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)
				%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.1	1	2	0.4	1	1	1	0.1	1	1	20	20	50	50	100	100	50
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																	
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	**13**	-	<4	<0.4	**9**	**30**	**19**	<0.1	**6**	**36**	<25	<25	<50	<50	<100	<100	<50
287841	**EPIC_NS_QC01**	**Soil**	**1/02/2022**	**13**	-	**5**	<0.4	**9**	**25**	**42**	<0.1	**6**	**40**	<25	<25	<50	<50	<100	<100	<50
RPD				0	-	22	0	0	18	75	0	0	11	0	0	0	0	0	0	0
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	**13**	-	<4	<0.4	**9**	**30**	**19**	<0.1	**6**	**36**	<25	<25	<50	<50	<100	<100	<50
861533	**EPIC_NS_QC02**	**Soil**	**2/02/2022**	-	**9.0**	**3.5**	<0.4	**14**	**13**	**19**	<0.1	**7.2**	**35**	<20	<20	<50	<50	**110**	<100	**110**
RPD				-	-	0	0	43	79	0	0	18	3	0	0	0	0	10	0	75
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	**27**	-	**8**	<0.4	**30**	**2**	**13**	<0.1	**2**	**2**	<25	<25	<50	<50	<100	<100	<50
288341	**EPIC_NS_QC03**	**Soil**	**4/02/2022**	**25**	-	**7**	<0.4	**29**	**2**	**13**	<0.1	**2**	**2**	<25	<25	<50	<50	<100	<100	<50
RPD				8	-	13	0	3	0	0	0	0	0	0	0	0	0	0	0	0
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	**27**	-	**8**	<0.4	**30**	**2**	**13**	<0.1	**2**	**2**	<25	<25	<50	<50	<100	<100	<50
864291	**EPIC_NS_QC04**	**Soil**	**4/02/2022**	-	**20**	**14**	<0.4	**41**	<5	**19**	<0.1	<5	**5.2**	<20	<20	<50	<50	<100	<100	<100
RPD				-	-	55	0	31	0	38	0	0	89	0	0	0	0	0	0	0
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	**12**	-	**7**	<0.4	**8**	**28**	**25**	<0.1	**7**	**41**	<25	<25	<50	<50	<100	<100	<50
288341	**EPIC_NS_QC05**	**Soil**	**4/02/2022**	**15**	-	**8**	<0.4	**8**	**32**	**50**	<0.1	**9**	**55**	<25	<25	<50	<50	<100	<100	<50
RPD				22	-	13	0	0	13	67	0	25	29	0	0	0	0	0	0	0
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	**12**	-	**7**	<0.4	**8**	**28**	**25**	<0.1	**7**	**41**	<25	<25	<50	<50	<100	<100	<50
864291	**EPIC_NS_QC06**	**Soil**	**4/02/2022**	-	**11**	**11**	<0.4	**10**	**31**	**34**	<0.1	**5.4**	**58**	<20	<20	<50	<50	<100	<100	<100
RPD				-	-	44	0	22	10	31	0	26	34	0	0	0	0	0	0	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T4: QA/QC - Soil RPDs

Field or Interlab Duplicates

				TPH					BTEX												
				C6-C9	C10-C14	C15-C28	C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Benzo(b+j+k)fluoranthene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				20	20	50	50	50	0.5	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.1
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																	
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	**0.1**
287841	**EPIC_NS_QC01**	**Soil**	**1/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	**0.2**	<0.1	<0.1	<0.1	**0.1**
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	**0.1**
861533	**EPIC_NS_QC02**	**Soil**	**2/02/2022**	<20	**21**	**67**	**55**	**143**	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<0.5	<0.5	<0.5	<0.5
RPD				0	0	0	0	96	0	0	0	0	0	0	0	-	0	0	0	0
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_QC03**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
864291	**EPIC_NS_QC04**	**Soil**	**4/02/2022**	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<0.5	<0.5	<0.5	<0.5
RPD				0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
288341	**EPIC_NS_QC05**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
RPD				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	<25	<50	<100	<100	<50	<1	<0.2	<0.5	<1	<2	<1	<3	<0.2	<0.1	<0.1	<0.1	<0.1
864291	**EPIC_NS_QC06**	**Soil**	**4/02/2022**	<20	<20	<50	<50	<50	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<0.5	<0.5	<0.5	<0.5
RPD				0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T4: QA/QC - Soil RPDs

Field or Interlab Duplicates

				PAH																	Phenols
				Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	PAHs (Sum of positives)	Phenolics Total
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.05	0.5	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.05	5
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																		
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	**0.1**	-	**0.1**	-	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.5	<0.5	<0.5	-	**0.74**	-
287841	**EPIC_NS_QC01**	**Soil**	**1/02/2022**	**0.2**	-	**0.1**	-	**0.1**	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.5	<0.5	<0.5	-	**1.2**	-
RPD				67	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	47	-
287841	**EPIC_NS_BH05_0.5-0.6**	**Soil**	**1/02/2022**	**0.1**	-	**0.1**	-	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.5	<0.5	<0.5	-	**0.74**	-
861533	**EPIC_NS_QC02**	**Soil**	**2/02/2022**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	<0.5	-	-
RPD				0	-	0	-	0	0	0	0	0	0	0	0	18	82	0	-	-	-
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	<0.05	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-
288341	**EPIC_NS_QC03**	**Soil**	**4/02/2022**	<0.05	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-
RPD				0	-	0	-	0	0	0	0	0	0	0	0	0	0	0	-	0	-
288341	**EPIC_NS_BH08_0.8-1.0**	**Soil**	**4/02/2022**	<0.05	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	<0.05	-
864291	**EPIC_NS_QC04**	**Soil**	**4/02/2022**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	<0.5	-	-
RPD				0	-	0	-	0	0	0	0	0	0	0	0	18	82	0	-	-	-
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	**0.1**	-	<0.1	-	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.5	<0.5	<0.5	-	**0.4**	<5
288341	**EPIC_NS_QC05**	**Soil**	**4/02/2022**	**0.07**	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	-	**0.07**	-
RPD				35	-	0	-	0	0	67	0	0	0	0	67	0	0	0	-	140	-
288341	**EPIC_NS_BH14_1.0-1.2**	**Soil**	**4/02/2022**	**0.1**	-	<0.1	-	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	**0.2**	<0.5	<0.5	<0.5	-	**0.4**	<5
864291	**EPIC_NS_QC06**	**Soil**	**4/02/2022**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**1.2**	<0.5	<0.5	-	-
RPD				0	-	0	-	0	0	0	0	0	0	0	0	18	82	0	-	-	-

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T5: QA/QC - Groundwater RPDs

Field or Interlab Duplicates

				Metals								TRH							TPH		
				Arsenic (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001	10	10	50	50	100	100	50	10	50	100
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																		
288232	**EPIC_NS_MW01**	**Water**	**2/02/2022**	<0.001	<0.0001	<0.001	**0.002**	<0.001	<0.00005	**0.008**	**0.025**	<10	<10	<50	<50	<100	<100	<50	<10	<50	<100
861533	**EPIC_NS_WQC01**	**Water**	**2/02/2022**	<0.001	<0.0002	<0.001	**0.002**	<0.001	<0.0001	**0.004**	**0.020**	<20	<20	<50	<50	<100	<100	<100	<20	<50	<100
RPD				0	0	0	0	0	0	67	22	0	0	0	0	0	0	0	0	0	0

Comments
#1 NIL (+)VE

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 50 (1 - 10 x EQL); 50 (10 - 30 x EQL); 50 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T5: QA/QC - Groundwater RPDs

Field or Interlab Duplicates

					BTEX															
			C29-C36	C10-C36 (Sum of total)	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chryseme
			µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L
EQL			100	50	0.001	1	1	1	2	1	3	1	1	1	1	1	0.001	1	1	1
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																	
288232	**EPIC_NS_MW01**	**Water**	**2/02/2022**	<100	<50	<0.001	<1	<1	<1	<2	<1	-	<1	<1	<1	<1	<1	-	<1	-	<1
861533	**EPIC_NS_WQC01**	**Water**	**2/02/2022**	<100	<100	<0.01	<1	<1	<1	<2	<1	<3	<1	<1	<1	<1	<1	<0.001	<1	<1	<1
RPD				0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	0	-	0

Comments
#1 NIL (+)VE

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 50 (1 - 10 x EQL); 50 (10 - 30 x EQL); 50 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T5: QA/QC - Groundwater RPDs

Field or Interlab Duplicates

				Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ	PAHs (Sum of total)	PAHs (Sum of positives)
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L
EQL				1	1	1	1	1	1	1	0.005	1	0.001
Lab Report Number	**Field ID**	**Matrix Type**	**Date**										
288232	**EPIC_NS_MW01**	**Water**	**2/02/2022**	<1	<1	<1	<1	<1	<1	<1	<0.005	-	**0**[#1]
861533	**EPIC_NS_WQC01**	**Water**	**2/02/2022**	<1	<1	<1	<1	<1	<1	<1	-	<1	-
RPD				0	0	0	0	0	0	0	-	-	-

Comments
#1 NIL (+)VE

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 50 (1 - 10 x EQL); 50 (10 - 30 x EQL); 50 (> 30 x EQL))**

*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table T6: QA/QC - Trip Blanks and Rinsates

Field Blanks

				Metals								TRH		TPH	BTEX					
				Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C10	C6-C10 (F1 minus BTEX)	C6-C9	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL				0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001	10	10	10	0.001	1	1	1	2	1
Lab Report Number	**Field ID**	**Matrix Type**	**Date**																	
288232	**TB01W**	**Water**	**2/02/2022**	-	-	-	-	-	-	-	-	<10	<10	<10	<0.001	<1	<1	<1	<2	<1
288141	**RB01**	**Water**	**2/02/2022**	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	<0.001	-	-	-	-	-	-	-	-	-
288232	**RB01W**	**Water**	**2/02/2022**	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.00005	<0.001	0.006	-	-	-	-	-	-	-	-	-
288341	**RB02**	**Water**	**3/02/2022**	<0.05	<0.01	0.02	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-	-
288341	**RB03**	**Water**	**4/02/2022**	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-	-	-	-	-	-	-

Table T6: QA/QC - Trip Blanks and Rinsates

Field Blanks

				TRH		TPH	BTEX						
				C6-C10	C6-C10 (F1 minus BTEX)	C6-C9	Naphthalene (BTEX)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				25	25	25	1	0.2	0.5	1	2	1	1
Lab Report Number	**Field ID**	**Matrix Type**	**Date**										
287841	**TB01**	**Soil**	**1/02/2022**	<25	<25	<25	<1	<0.2	<0.5	<1	<2	<1	<3
288341	**TB03**	**Soil**	**3/02/2022**	<25	<25	<25	<1	<0.2	<0.5	<1	<2	<1	<3

Table T7: QA/QC - Trip Spikes

Trip Spikes

Lab Report Number	Matrix Type	Analysis Batch	Field ID	Sampled Date/Time	Chem Group	Chem Name	Trip Spike Result	Trip Spike Control	Result Units	Spike Recovery %	LCL	UCL	Lab Sample ID	Sample Type
287841	Soil	2022-02-09	EPIC_NS_TS01	1/02/2022		Ethylbenzene	NA	NA	NA	105			287841-21	Trip_S
287841	Soil	2022-02-09	EPIC_NS_TS01	1/02/2022		Xylene (m & p)	NA	NA	NA	105			287841-21	Trip_S
287841	Soil	2022-02-09	EPIC_NS_TS01	1/02/2022		Toluene	NA	NA	NA	106			287841-21	Trip_S
287841	Soil	2022-02-09	EPIC_NS_TS01	1/02/2022		Benzene	NA	NA	NA	106			287841-21	Trip_S
287841	Soil	2022-02-09	EPIC_NS_TS01	1/02/2022		Xylene (o)	NA	NA	NA	106			287841-21	Trip_S
288232	Water	2022-02-09	Epic_NS_TS01W	2/02/2022		Ethylbenzene	NA	NA	NA	115			288232-5	Trip_S
288232	Water	2022-02-09	Epic_NS_TS01W	2/02/2022		Xylene (m & p)	NA	NA	NA	120			288232-5	Trip_S
288232	Water	2022-02-09	Epic_NS_TS01W	2/02/2022		Toluene	NA	NA	NA	99			288232-5	Trip_S
288232	Water	2022-02-09	Epic_NS_TS01W	2/02/2022		Benzene	NA	NA	NA	97			288232-5	Trip_S
288232	Water	2022-02-09	Epic_NS_TS01W	2/02/2022		Xylene (o)	NA	NA	NA	110			288232-5	Trip_S
288341	Soil	2022-02-09	EPIC_NS_TS03	4/02/2022		Ethylbenzene	NA	NA	NA	119			288341-49	Trip_S
288341	Soil	2022-02-09	EPIC_NS_TS03	4/02/2022		Xylene (m & p)	NA	NA	NA	119			288341-49	Trip_S
288341	Soil	2022-02-09	EPIC_NS_TS03	4/02/2022		Toluene	NA	NA	NA	119			288341-49	Trip_S
288341	Soil	2022-02-09	EPIC_NS_TS03	4/02/2022		Benzene	NA	NA	NA	120			288341-49	Trip_S
288341	Soil	2022-02-09	EPIC_NS_TS03	4/02/2022		Xylene (o)	NA	NA	NA	120			288341-49	Trip_S

Trip Spike Recoveries. Where no lab LCL and UCL is available, user defined limits between 30% and 150% have been adopted for non-compliance.

PLATES

Plate P1: Southern construction zone, location of asbestos containment cell (facing north)

Plate P2: Southern construction zone, location of asbestos containment cell (facing south)

Plate P3: Northern construction zone (facing north)

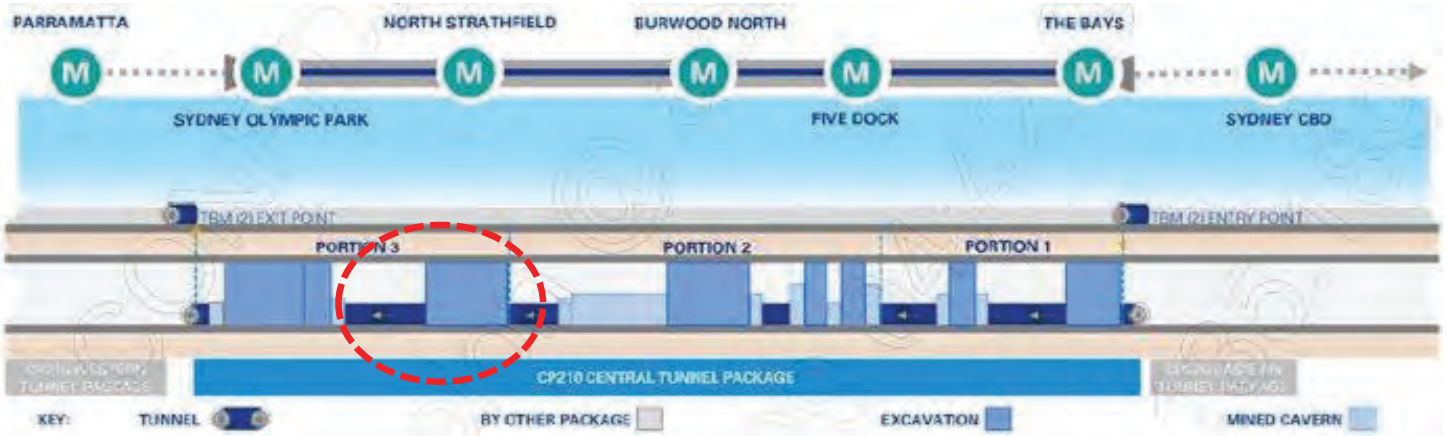
Plate P4: Representative image of clay/gravel ballast encountered in fill soils during intrusive drilling

Plate P5: Representative image of natural clays encountered during intrusive drilling

Plate P6: Representative image of Ashfield Shale recovered during intrusive drilling

Plate P7: Representative image of saturated shale recovered beneath the water table at BH20

APPENDIX A – NORTH STRATHFIELD STATION SITE LAYOUT



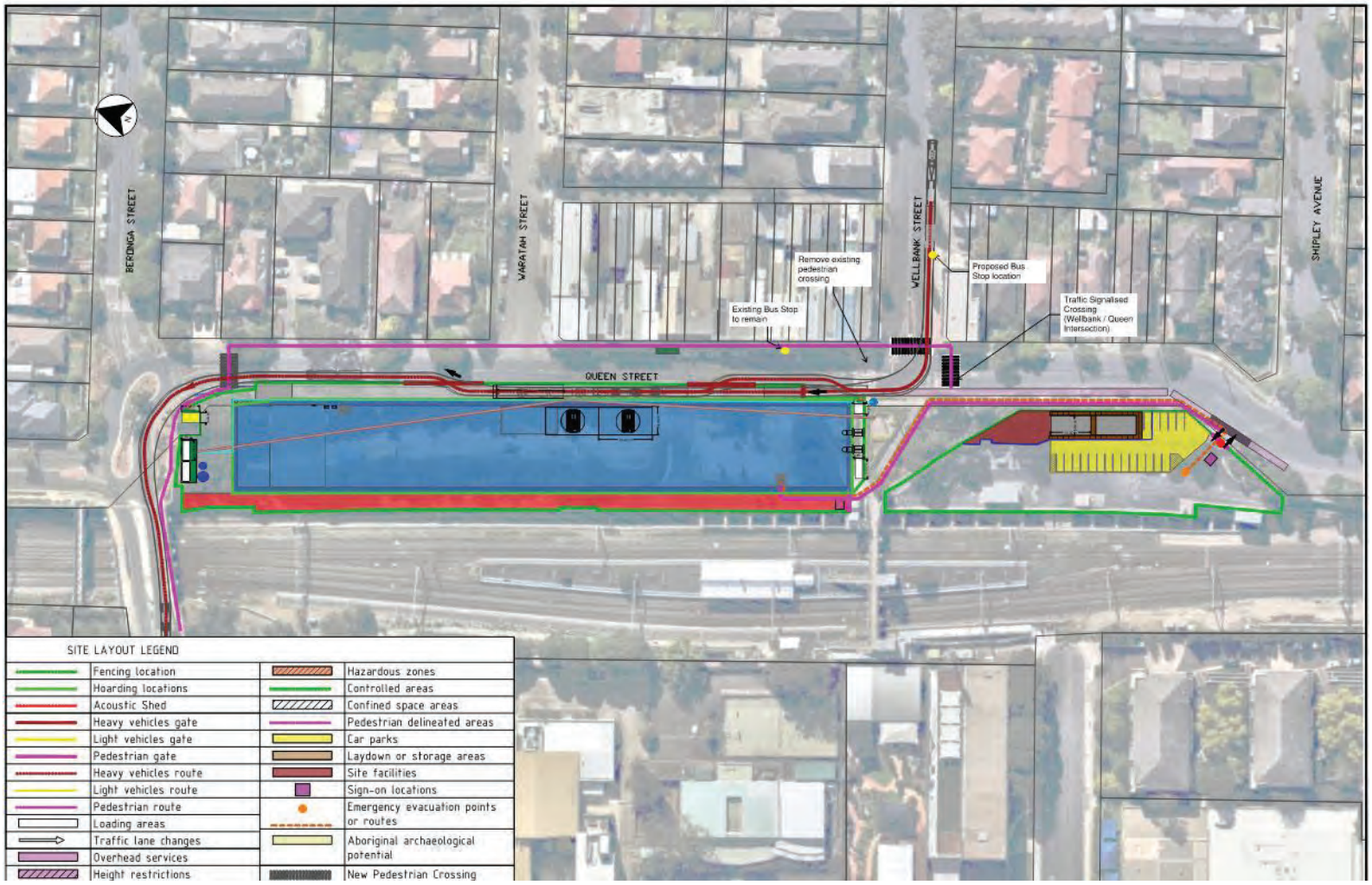
Stations & Shafts

North Strathfield Station

Stations & Shafts – North Strathfield Station

Access / Handover dates

Stations & Shafts – North Strathfield Station – Site Layout



APPENDIX B – HISTORICAL BOREHOLE LOGS

PIEZOMETER CONSTRUCTION

HOLE NO : SMW_BH009_s
FILE / JOB NO : 00013/11180
SHEET : 1 OF 1

PROJECT : Sydney Metro West
LOCATION : North Strathfield - Queen Street

POSITION : E: 323220.2, N: 6251758.3 (56 MGA94) SURFACE ELEVATION : 18.60 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : LX6 (DB 525) MOUNTING : Track CONTRACTOR : Hagstrom

DATE STARTED : 2/7/18 DATE COMPLETED : 9/7/18 DATE LOGGED : 2/7/18 LOGGED BY : SL CHECKED BY : GS

DRILLING			MATERIAL			PIEZOMETER CONSTRUCTION DETAILS
PROGRESS: DRILLING & CASING	WATER LOSS	GROUND WATER LEVELS	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL (See geotechnical log for soil/rock detail)
DT			0.0			FILL
						0.30m
						GRAVELLY CLAY
NDD			0.5			
HW Casing			1.0			
						1.30m
AD/V						SILTSTONE
			1.5			
			2.0			
			2.5			
			3.0			
WB			3.5			
			4.0			
			4.5			
			5.0			SMW_BH009_s TERMINATED AT 5.00 m Target depth
						5.00m

PIEZOMETER CONSTRUCTION DETAILS

ID	Type	Stick Up & RL	Tip Depth & RL	Installation Date	Static Water Level
1	Standpipe		5.00 m 13.60 mAHD	11/07/2018	

- 0.01m (18.59) — Gatic cover/vented cap
- Concrete
- 0.20m (18.40)
- Bentonite
- 1.00m (17.60)
- PN18 PVC-U Pipe ID = 50mm, OD = 60mm
- <5mm sand/gravel
- PVC slotted screen (4m)
- Hole diameter = 100mm
- 4.99m (13.61) 5.00m (13.60) — End Cap

This report of well/VWP installation must be read in conjunction with accompanying notes and abbreviations. The geotechnical log is a summary only and the detailed log should be referred to for strata details and any core loss zones.

GOLDER Douglas Partners Geotechnics | Environment | Groundwater

RMS LIB 40.3.9.GLB Log RTA PIEZOMETER INSTALLATION LOG 1 SMW GINT BH.GPJ <<DrawingFile>> 12/Sep/2019 15:53 10.01.00.01 Datgel Tools

PIEZOMETER CONSTRUCTION

HOLE NO : SMW_BH073_w
FILE / JOB NO : 00013/11180
SHEET : 1 OF 1

PROJECT : Sydney Metro West
LOCATION : North Strathfield Station

POSITION : E: 323181.1, N: 6251828.5 (56 MGA94) SURFACE ELEVATION : 18.93 (mAHD) ANGLE FROM HORIZONTAL : 90°

RIG TYPE : Comacchio MOUNTING : Track CONTRACTOR : Ground Test

DATE STARTED : 10/4/19 DATE COMPLETED : 17/4/19 DATE LOGGED : 10/4/19 LOGGED BY : SLB CHECKED BY : GS

DRILLING

PROGRESS
DRILLING & CASING: WB, NDD, HW Casing, HQ3
WATER LOSS: 0%, 0%, 5%, 10-20%, 40%
GROUND WATER LEVELS: 15/4/2019 10:40

DEPTH (m): 0.0, 5.0, 10.0, 15.0, 20.0, 25.0, 30.0, 35.0

MATERIAL

GRAPHIC LOG / CLASSIFICATION SYMBOL

MATERIAL (See geotechnical log for soil/rock detail)

- 0.90m — FILL
- SILTSTONE
- 31.47m — SANDSTONE
- 34.00m — SMW_BH073_w TERMINATED AT 34.00 m Target depth

PIEZOMETER CONSTRUCTION DETAILS

ID	Type	Stick Up & RL	Tip Depth & RL	Installation Date	Static Water Level
1	Standpipe		13.20 m 5.73 mAHD	18/04/2019	

- ~~0.10m (18.83)~~
- 0.20m (18.73)
- 0.30m (18.63) — Gatic cover, Vented Cap
- Hole diameter = 100mm
- Cement Bentonite Grout
- PN18 PVC-U Pipe ID = 50mm, OD = 60mm
- 6.50m (12.43)
- 7.60m (11.33) — Bentonite
- <5mm sand/gravel
- 10.20m (8.73)
- Slotted screen (3m)
- 13.20m (5.73)
- 19.30m (-0.37)
- ~~19.40m (-0.47)~~ — End Cap
- Bentonite
- 34.00m (-15.07)

This report of well/VWP installation must be read in conjunction with accompanying notes and abbreviations. The geotechnical log is a summary only and the detailed log should be referred to for strata details and any core loss zones.

GOLDER Douglas Partners Geotechnics | Environment | Groundwater

RMS LIB 40.3.9.GLB Log RTA PIEZOMETER INSTALLATION LOG 1 SMW GINT BH.GPJ <<DrawingFile>> 12/Sep/2019 15:58 10.01.00.01 Datgel Tools

APPENDIX C – QA/QC PROGRAM

The following sections provide an assessment of the QA/QC for the DSI at the proposed North Strathfield station. The QA/QC protocols that were adopted for the investigation are summarised below.

Field quality control program

The ASC NEPM (NEPC 2013) and PFAS NEMP (HEPA, 2020) outline the approaches adopted for QC verification of field procedures. The QC samples collected during the investigation are described as follows:

- Blind duplicate: Blind duplicate samples used to identify variation in the analyte concentration between samples from the same sampling point
- Split duplicate: Split duplicate samples provide an indication of the repeatability of the results between laboratories
- Trip spike: A sample of laboratory supplied soil that was spiked with a known concentration of compounds of interest and accompanied the other samples over the course of fieldworks. The sample was submitted to the laboratory for analysis to identify the potential loss of volatile contaminants throughout the fieldworks. Compounds of interest are reported as a percentage of the original spiked concentration.
- Trip blank: A sample of laboratory supplied soil or deionised water accompanied the other samples over the course of the fieldworks and was submitted to the laboratory for analysis. Trip blanks provide an indication of contamination introduced during sample transport and handling, and also ensure that the testing laboratory is not reporting “false positives”. Trip blanks should not indicate concentrations of the contaminants of potential concern (CoPC) above the laboratory detection limits.
- Rinsate blanks were used to estimate the amount of contamination introduced during the re-use of sampling equipment. Rinsate blanks were collected into laboratory supplied bottles and then kept cool in insulated containers until delivery to the laboratory. All rinsate samples were collected using laboratory supplied deionised water.
    - Rinsate blank samples were obtained by pouring laboratory supplied deionised water over decontaminated sampling equipment (e.g. push tube shoe, groundwater interface probe, hand auger) and collecting the water in laboratory supplied bottles

Relative percentage difference calculations

Blind and split duplicate samples were assessed by calculating the relative percentage difference (RPD) between the primary, blind and split samples.

RPD values are calculated using the following equation.

$$RPD(\%) = \frac{(C_o - C_s)}{\left(\frac{C_o + C_s}{2}\right)} \times 100$$

Where C_0 = reported concentration from primary sample
C_S = reported concentration from duplicate sample

According to AS 4482.1 – 2005 (Standards Australia, 2005), typical RPDs are expected to range between 30% and 50%; however, this may be higher for concentrations which are close to the laboratory LOR. Considering this, Epic have adopted the following acceptable RPD limits for the DSI, based on standard industry practice:

- 200% for concentrations within one to ten times the analyte LOR
- 50% for concentrations within ten to 30 times the analyte LOR
- 30% for concentrations greater than 30 times the analyte LOR

It is noted that these limits may not always be achieved, particularly in heterogeneous soils or sediments.

Laboratory QA/QC program

Laboratory methods to be used by the primary and secondary laboratories are suitable for environmental contaminant analysis and are based on established internationally recognised procedures. Each of the laboratories is NATA accredited for the proposed analyses.

The following laboratory QC procedures were used during the investigation.

Laboratory duplicate samples

Laboratory duplicate sample analysis is the analysis of a laboratory derived duplicate sample from the process batch, at a rate equivalent to one in 10 samples per analytical batch, or one sample per batch if less than 10 samples are analysed in a batch. A laboratory duplicate provides data on the analytical precision and reproducibility of the analytical results.

The permitted ranges for the RPD of laboratory duplicates are dependent on the magnitude of the results in comparison to the level of reporting as summarised in **Table D1**.

Table D1: Acceptable laboratory relative percentage difference ranges

Magnitude of result	Acceptable RPD range
< 10 x limit of reporting (LOR)	No limits
10 - 20 x LOR	0% - 50%
> 20 x LOR	0% - 20%

Method blank samples

Method or blank sample analysis are the analyses of a sample that is as free as possible of the analyte(s) of interest, but has been prepared the same as the samples under investigation. The analysis is to ascertain if laboratory reagents, glassware and other laboratory consumables contribute to the observed concentration of analytes in the process batch. If below the maximum acceptable method blank (below practical quantification limit), the contribution is subtracted from the gross analytical signal for each analysis before calculating the sample analyte concentration. The method blank should return analyte concentrations as 'not detected'.

Laboratory control samples

Laboratory control spike analysis is the analysis of either a reference material or a control matrix fortified with analytes representative of the analyte class. The purpose of laboratory control spike samples is to monitor method precision and accuracy independent of the sample matrix. Typically, the percentage recovery of the laboratory control spike sample is compared to the dynamic recovery limits based on the statistical analysis of the processed laboratory control spike sample analysis. Recoveries should lie between 70% and 130%.

Matrix spike samples

Matrix spike sample analysis is the analysis of one or more replicate portions of samples from the batch, after fortifying the additional portion(s) with known quantities of the analyte(s) of interest. The percentage recovery of target analyte(s) from matrix spike samples is used to determine the bias of the method in the specific sample matrix. Recoveries should lie between 70% and 130%.

Surrogate spike samples

Surrogate spike samples are samples with known additions of known amounts of compounds, which are similar to the analytes of interests in terms of extractability, recovery through clean-up procedures and response to chromatographic or other measurement. Surrogate compounds may be alkylated or halogenated analogues or structural isomers of analytes of interest. The purpose of surrogate spikes, which are added immediately before the sample extraction step, is to provide a check for every analysis that no gross processing errors have occurred, which could have led to significant analyte loss or faulty calculation. Recoveries should lie between 50% and 150%.

Internal standards

Internal standards are known additions of known amounts of compounds which are not found in real samples, will not interfere with quantification of analytes of interest and may be separately and independently quantified. The purpose of internal standards in instrumental techniques is to provide independent signals, which serve to check the consistency of the analytical step.

Field QA/QC assessment results

Duplicate samples

A total of six soil and one groundwater duplicate samples were collected during the investigation. All duplicates were analysed and are summarised in **Table D2**.

Table D2: Quality control samples summary

Matrix	QA/QC sample type	Sample ID	Parent sample	Date
Soil	Intra-laboratory duplicate	QC01	BH05_0.5-0.6	01/02/2022
	Inter-laboratory duplicate	QC02		
	Intra-laboratory duplicate	QC03	BH08_0.8-1.0	04/02/2022
	Inter-laboratory duplicate	QC04		
	Intra-laboratory duplicate	QC05	BH14_1.0-1.2	04/02/2022
	Inter-laboratory duplicate	QC06		
Groundwater	Intra-laboratory duplicate	WQC01	MW01 (SMW_BH009s)	02/02/2022
	Inter-laboratory duplicate	Not collected		

One groundwater duplicate sample was collected which does not comply with the adopted quality sampling procedures

Calculated RPDs

Of the seven duplicate samples analysed, six samples exceeded the nominated RPD acceptance criteria based on the detected concentrations between the primary and duplicate samples.

The acceptance criteria for the RPD limits are less than:

- 81% for concentrations within one to ten times the analyte LOR;
- 50% for concentrations within ten to 30 times the analyte LOR; and
- 30% for concentrations greater than 30 times the analyte LOR

The RPD results are presented in **Table T4** and **Table T5**.

The RPD exceedances in soil are likely associated with the heterogeneity of the soil. Overall, Epic notes that the variation between the primary and duplicate pairs was not sufficiently large as the results were generally within the same order of magnitude. The differences have not triggered exceedances of the criteria, affected the interpretation of data with reference to the nominated screening levels and have not altered the conclusions of the investigation. As such, the level of precision is considered to be suitable for the purposes of this investigation.

The RPD exceedance in groundwater is associated with the low concentrations (i.e. same order of magnitude as the laboratory LOR), reported in the sample. Due to the concentrations reported being below the adopted assessment criteria, the RPD exceedance is not considered to affect the overall interpretation of the results.

Rinsate samples

Rinsate samples were collected from sampling equipment. Results of rinsate blank analysis are summarised in **Table D3** and are included in **Table T6**.

Table D3: Rinsate sample details

Equipment	Sample media	Sample ID	Detect (Y/N)
Hand auger	Soil	RB01	N
Hand auger	Soil	RB02	Y
Hand auger	Soil	RB03	N
Groundwater IP dip meter	Groundwater	RB01W	Y

Concentrations of chromium and zinc were reported in RB02 and RB01W, respectively. Based on the low concentrations detected (i.e. same order of magnitude as the laboratory LOR) and two other rinsate samples reporting non detects for all analytes, the decontamination measures adopted as part of the investigation are considered to be appropriate.

Trip blank

Results of trip blank analysis are provided in **Table T6**. Three trip blank samples were analysed and all results were below the laboratory LOR, indicating that there was unlikely cross-contamination during sample transport.

Trip spike

Results of trip spike analysis are provided in **Table T7**. Three trip spike samples were analysed and all results were within the acceptance criteria.

Laboratory QA/QC results

The NATA certified laboratories utilised for this assessment (Envirolab and Eurofins) undertook their own quality assurance and quality control procedures for sample analysis. The data presented in the laboratory QA/QC reports is generally considered adequate in demonstrating the precision and accuracy of the methods used to analyse field samples.

All soil and water samples were received and analysed within the specified laboratory holding times.

Laboratory quality control samples included laboratory control samples, internal duplicates, matrix spike and matrix spike duplicates, and method blanks. The types of QA/QC samples analysed by the laboratories were considered appropriate to assess the precision and accuracy of the laboratory methods used.

Epic has reviewed the internal laboratory control data provided within the laboratory reports (refer to Appendix H). It is noted comments have been provided by the laboratory where a failure result was reported in laboratory QA/QC procedures. Laboratory QA/QC reports are provided on respective laboratory reports (included in Appendix H) and are summarised in **Table D4**.

Table D4: Laboratory QA/QC summary

Lab report #	Analysis within holding time	Surrogate recovery	Lab duplicate RPD %	Lab Matrix Spike recovery	Lab Control sample	Lab Method Blank
287841	✓	✓	X	✓	✓	✓
288141	✓	✓	✓	X	✓	✓
288232	X	✓	✓	✓	✓	✓
288341	✓	✓	X	✓	✓	✓
861533-S	✓	✓	X	X	✓	✓
861533-W	✓	✓	✓	✓	✓	✓
864291-S	✓	✓	X	✓	✓	✓

✓ = Pass X = Fail - = not required * = Refer to report text

287841

The failed duplicate RPD reported for Nickel passed Envirolabs internal acceptance criteria. Where the laboratory RPD acceptance criteria was exceeded, a triplicate result was issued. All triplicate results noted an acceptable RPD.

The failed duplicate RPD reported for PAHs passed Envirolabs internal acceptance criteria as based on the non homogenous nature of the sample.

288141

The percent recovery for the surrogate/matrix spike of Chrysene was not able to be reported due to the high concentrations of analytes which caused interference.

288232

Samples were out of the recommended holding time for pH analysis.

288341

The failed duplicate RPD reported passed Envirolabs internal acceptance criteria. Where the laboratory RPD acceptance criteria was exceeded, a triplicate result was issued. All triplicate results noted an acceptable RPD.

861533-S

The failed duplicate RPD reported passed Eurofins internal environment testings QC acceptance criteria.

The matrix spike recovery was outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

864291-S

The failed duplicate RPD reported passed Eurofins internal environment testings QC acceptance criteria.

Summary

The exceedances of the holding time for analysis of pH are not considered to affect the overall interpretation of the results.

The outliers noted for the laboratory duplicate RPDs are not considered to affect the overall interpretation of the results as the failed samples passed each respective laboratories internal quality process.

Epic accepts the integrity of the analytical data.

APPENDIX D – CALIBRATION CERTIFICATES

PID Calibration Certificate

Instrument PhoCheck Tiger
Serial No. T-110623

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93PPM Isobutylene	NATA	SY361		93.1ppm

Calibrated by: **Gary Needs**

Calibration date: **31/01/2022**

Next calibration due: **30/07/2022**

Oil / Water Interface Meter

Instrument Geotech Interface Meter (30M)
Serial No. 4442

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: Darcy Keogh

Calibration date: 2/02/2022

Next calibration due: 3/04/2022

Multi Parameter Water Meter

Instrument YSI Quatro Pro Plus
Serial No. 10H100325

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		370064	pH 10.14
2. pH 7.00		pH 7.00		368081	pH 7.08
3. pH 4.00		pH 4.00		380327	pH 3.92
4. mV		231.8mV		365451/370891	231.6mV
5. EC		2.76mS		377099	2.75mS
6. D.O		0.00ppm		1910294760	0.00ppm
7. Temp		21.4°C		MultiTherm	20.6°C

Calibrated by: **Sarah Lian**

Calibration date: **27/01/2022**

Next calibration due: **26/02/2022**

APPENDIX E – BOREHOLE LOGS

ENVIRONMENTAL BOREHOLE BH03

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323189.145
NORTHING 6251839.214
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	HA	27.5	EPIC_NS_BH03_0-0.1		Fill: pale brown grey, silty gravel, medium grain, well graded, subangular, dry, loose density	Foreign material- concrete,brick
	NDD					
0.5	HA	0.9	EPIC_NS_BH03_0.5-0.6		Fill: dark brown, clay, medium plasticity, poorly graded, humid, stiff	Rootlets
0.6	NDD					
0.9	HA	0.9	EPIC_NS_BH03_0.9-1.0		CLAY: brown grey mottled, medium plasticity, moist, stiff	Natural
1					Borehole terminated 1.0 m target depth	

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ENVIRONMENTAL BOREHOLE BH04

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG NDD Trailer
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323182.0013
NORTHING 6251863.027
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	HA	0.8	EPIC_NS_BH04_0.1-0.2		Fill: brown, gravelly clay, low plasticity, well graded, medium, sub angular gravel, wet, stiff	
0.2	NDD					
0.3						
0.4					Fill: brown, silty clay, medium plasticity, poorly graded, dry, stiff	Rootlets Potential reworked natural
0.5	HA	0.7	EPIC_NS_BH04_0.5-0.6			
0.6	NDD					
0.7						
0.8						
0.9	HA	0.8	EPIC_NS_BH04_0.9-1.0		CLAY: brown-pale grey, mottled, medium plasticity, humid, stiff	
1					Borehole terminated at 1.0 m bgl target depth	
1.1						
1.2						
1.3						
1.4						

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ENVIRONMENTAL BOREHOLE BH05

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG NDD
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323175.6513
NORTHING 6251887.534
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	HA	0.7	EPIC_NS_BH05_0.1-0.2		Fill: pale grey, silty sand, well graded, fine to medium, sub angular, fine sand, dry, loose	Rootlets
0.2	NDD					
0.3						
0.4						
0.5	HA	0.9	EPIC_NS_BH05_0.5-0.6 EPIC_NS_QC01 EPIC_NS_QC02			
0.6	NDD					
0.7						
0.8						
0.9			EPIC_NS_BH05_0.9-1.0		CLAY: brown, medium plasticity, poorly graded, moist, firm	
1					Borehole terminated at 1.0m target depth	
1.1						
1.2						
1.3						
1.4						

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ENVIRONMENTAL BOREHOLE BH06

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG NDD
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323167.2368
NORTHING 6251903.789
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	NDD	0.9	EPIC_NS_BH06_0-0.1		Fill: dark brown, gravelly clay, fine to coarse angular, well graded, moist, dense Ballast/cobbles	Rootlets, grass Foreign materials- concrete
0.9	HA	1	EPIC_NS_BH06_0.9-1.0		Fill: grey brown, gravelly clay, high plasticity, fine to coarse gravels moist, firm	
1					Borehole terminated at 1.0 m bgl target depth	

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ENVIRONMENTAL BOREHOLE BH07

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 0.1 m
Diameter 150 mm

EASTING 323157.922
NORTHING 6251934.958
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
	NDD	0.8	EPIC_NS_BH07_0-0.1		Fill: dark grey, silty gravel, low plasticity, medium subangular gravel, moist, hard	Ballast Foreign material= concrete
0.1					Refusal on ballast at 0.1 m bgl	
0.2						
0.3						
0.4						
0.5						
0.6						
0.7						
0.8						
0.9						
1						
1.1						
1.2						
1.3						
1.4						

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ENVIRONMENTAL BOREHOLE BH08

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 04/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323149.5424
NORTHING 6251954.936
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA	0.3	EPIC_NS_BH08_0-0.1		Fill: dark brown, silty gravel, mottled, subangular medium gravel, well graded, moist, firm	Ballast, shale gravels
0.1	NDD					
0.2						
0.3					Fill: dark grey, gravel, angular to sub angular, coarse, poorly graded, moist, very loose	Ballast
0.4						
0.5		0.3	EPIC_NS_BH08_0.5-0.6			
0.6						
0.7						
0.8			EPIC_NS_BH08_0.8-1.0 EPIC_NS_QC03 EPIC_NS_QC04		CLAY: brown, high plasticity, humid, stiff	Roots
0.9		0.4				
1					Borehole terminated at 1.0 m bgl target depth	
1.1						
1.2						
1.3						
1.4						

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ENVIRONMENTAL BOREHOLE BH09

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323139.8525
NORTHING 6251973.746
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	NDD	0.7	EPIC_NS_BH09_0-0.1		Fill: dark brown, clay gravel, subangular, coarse, well graded, dry, hard	Foreign Material= concrete, plastic, geofab Roots
0.7		0.8	EPIC_NS_BH09_0.7-0.8		Fill: dark brown, silty clay, medium plasticity, humid, firm	Rootlets
0.8	HA				CLAY: brown, medium plasticity, humid, firm	
1		0.8	EPIC_NS_BH09_0.9-1		Borehole terminated at 1.0 m target depth	

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ENVIRONMENTAL BOREHOLE BH10

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 0.5 m
Diameter 150 mm

EASTING 323133.2155
NORTHING 6251991.428
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	NDD	0.8	EPIC_NS_BH10_0-0.1		Fill: dark brown, clay gravel, sub angular, coarse grain, well graded, dry, stiff	Ballast
0.5					Borehole terminated 0.5 m refusal ballast	No sample recoverable

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ENVIRONMENTAL BOREHOLE BH11

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323124.1476
NORTHING 6252010.444
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	NDD		EPIC_NS_BH11_0-0.1		Fill: pale brown grey, silty gravel, well graded, coarse grain, angular, dry, hard	Ballast
0.6	HA	0.9	EPIC_NS_BH011_0.6-0.7		Fill: dark brown, silty clay, medium plasticity, poorly graded, humid, loose	
0.7	NDD					
0.9	HA	0.5	EPIC_NS_BH11_0.9-1.0			
1					Borehole terminated 1.0 m target depth	

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ENVIRONMENTAL BOREHOLE BH12

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 04/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 0.8 m
Diameter 150 mm

EASTING 323125.2205
NORTHING 6251997.121
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.1	HA	0.4	EPIC_NS_BH12_0.1-0.2		Fill: dark grey, gravelly clay, fine, medium plasticity, well graded, angular, moist, stiff	Ballast Reworked natural, shale gravels
0.4					Fill: dark grey, gravel, coarse grain, angular, well graded, moist, loose	
0.5		0.4	EPIC_NS_BH12_0.5-0.6			
0.6	NDD					
0.8					Borehole terminated 0.8 m refusal	

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ENVIRONMENTAL BOREHOLE BH13

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 04/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 1.0 m
Diameter 150 mm

EASTING 323132.2722
NORTHING 6251979.316
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA	0.3	EPIC_NS_BH13_0-0.1		Fill: dark grey mottled light grey, gravelly clay, low plasticity, subangular fine gravel wet, soft	Ballast
0.1	NDD					black geofabric
0.2						
0.3	HA	0.4	EPIC_NS_BH13_0.3-0.4		Fill: dark grey, gravelly clay, medium plasticity, medium angular gravel, moist, stiff	Shale gravels Reworked natural
0.4						
0.5						
0.6						
0.7						
0.8					Fill: dark brown grey, silty sand, trace gravel, fine to medium grain, fine sand, fine angular gravels moist, stiff	Trace organic matter Reworked natural, shale gravel
0.9		0.4	EPIC_NS_BH13_0.9-1.0			
1					Refusal at 1.0 m	
1.1						
1.2						
1.3						
1.4						

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ENVIRONMENTAL BOREHOLE BH14

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 6.1 m
Diameter 150 mm

EASTING 6251979.316
NORTHING 6251961.169
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA	0.4	EPIC_NS_BH14_0-0.1		Fill: dark brown, gravelly clay, coarse grain, medium plasticity, sub angular medium gravel, well graded, moist, hard	Ballast
	NDD					Foreign materials= metal
0.5	HA		EPIC_NS_BH14_0.5-0.6			Foreign materials= metal
	NDD					
	HA		EPIC_NS_BH14_1.0-1.2		Fill: brown mottled grey, gravelly clay, coarse grain, medium plasticity, well graded, angular, humid, stiff	Reworked natural
1		0.3	EPIC_NS_QC05			Ballast
			EPIC_NS_QC06			
	SFA					
1.5						
2		0.6	EPIC_NS_BH14_2.0-2.1			
2.5					Becoming grey, soft	
3		0.5	EPIC_NS_BH14_3.0-3.1		Becoming stiff	
3.5						
4		0.5	EPIC_NS_BH14_4.0-4.1			
4.5						
5		0.5	EPIC_NS_BH14_5.0-5.1		Becoming pale brown grey	
5.5						
6		0.5	EPIC_NS_BH14_6.0-6.1		Silty CLAY: brown grey, medium plasticity dry, hard	Rootlets Possible highly weathered shale
					Borehole terminated at 6.1 m target depth	
6.5						

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ENVIRONMENTAL BOREHOLE BH15

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 3.0 m
Diameter 150 mm

EASTING 323145.2161
NORTHING 6251941.242
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA	0.4	EPIC_NS_BH15_0-0.1		Fill: brown, gravelly clay, coarse grain, medium plasticity, sub angular, moist, hard	Ballast
	NDD					Geofabric
0.4						Geofabric no sample recoverable
0.6						Timber
1.2	SFA				becoming mottled dark grey	
1.4		0.4	EPIC_NS_BH15_1.4-1.5			
2						No sample recoverable
3		0.5	EPIC_NS_BH15_2.9-3.0			
					Borehole terminated at 3.0 m target depth	

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ENVIRONMENTAL BOREHOLE BH16

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 03/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 6.0 m
Diameter 150 mm

EASTING 323153.1019
NORTHING 6251918.678
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA	0.4	EPIC_NS_BH16_0-0.1		Fill: brown, silty sand, fine grain, trace gravel, sub angular, well graded, wet, soft	Geofabric (white)
0.2	NDD					Ballast Foreign materials= concrete
0.4					Fill: dark grey pale brown, gravel, coarse grain, sub angular to rounded, poorly graded, wet, hard	Ballast Foreign material= concrete
0.6	HA	0.2	EPIC_NS_BH16_0.5-0.6			
0.8	NDD				Fill: dark brown, clay gravel, medium grain, angular, moist, stiff	Concrete
1	HA				Fill: pale grey mottled red and brown, clay, medium plasticity, moist, stiff	Reworked natural NDD refusal at 1.0 m (concrete)
1.2	NDD				Fill: dark grey, clayey gravel, coarse grain, sub angular, poorly graded, moist, hard	
1.4	SFA					
1.6		0.7	EPIC_NS_BH16_1.5-1.6			
1.8						
2		0.5	EPIC_NS_BH16_2.0-2.1			
2.2						
2.4						
2.6						
2.8						
3		0.6	EPIC_NS_BH16_3.0-3.1			Very hard drilling
3.2						
3.4						
3.6						
3.8						
4						

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ENVIRONMENTAL BOREHOLE BH16

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
4		0.4	EPIC_NS_BH16_4.0-4.1			
4.2						
4.4						
4.6						
4.8						
5		0.5	EPIC_NS_BH16_5.0-5.1			
5.2						
5.4						
5.6		0.5	EPIC_NS_BH16_5.5-5.6		CLAY: dark grey, medium plasticity, dry, firm	Shale?
5.8						
6			EPIC_NS_BH16_5.9-6.0			
6.2					Borehole terminated at 6.0 m target depth	
6.4						
6.6						
6.8						
7						
7.2						
7.4						
7.6						
7.8						
8						
8.2						
8.4						
8.6						
8.8						

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ENVIRONMENTAL BOREHOLE BH17

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 3.0 m
Diameter 150 mm

EASTING 323156.981
NORTHING 6251901.386
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	NDD		EPIC_NS_BH17_0-0.1		Fill: dark brown, gravelly clay, coarse grain, medium plasticity, sub angular, moist, very hard	Ballast
0.2						
0.4						no sample recoverable
0.6						
0.8						
1	HA		EPIC_NS_BH17_1.0-1.1			
	SFA					
1.2						
1.4						
1.6						
1.8						
2			EPIC_NS_BH17_2.0-2.1			
2.2						
2.4						
2.6					Clay content increasing, dry	Shale gravels
2.8						
3			EPIC_NS_BH17_2.9-3.0			
					Borehole terminated at 3.0 m target depth	

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ENVIRONMENTAL BOREHOLE BH18

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 6.0 m
Diameter 150 mm

EASTING 323159.0818
NORTHING 6251885.748
SURFACE ELEVATION -
LOGGED BY JP
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	NDD				Fill: dark grey brown, gravelly clay, coarse grain, sub angular, well graded, low plasticity, wet, hard	Ballast, aggregate .500 Geofabric Foreign material- metal
0.5	HA	0.3	EPIC_NS_BH18_0.5-0.6			
	NDD				Fill: brown mottled dark grey, clay trace gravel, medium plasticity, moist, firm	Reworked natural
1	SFA	0.4	EPIC_NS_BH18_1.0-1.1		Fill: dark grey brown, gravelly clay, coarse grain, sub angular, well graded, low plasticity, moist, hard	Ballast
1.5						
2		0.5	EPIC_NS_BH18_2.0-2.1			
2.5					Fill: dark grey, gravel, fine grain, sub angular poorly graded, dry, hard	
3		0.5	EPIC_NS_BH18_3.0-3.1			
3.5					Silty GRAVEL: pale brown grey, fine grain, angular, dry, stiff	Shale?
4		0.5	EPIC_NS_BH18_4.0-4.1			
4.5					becoming pale red/brown	
5			EPIC_NS_BH18_5.0-5.1			
5.5					becoming grey	
6			EPIC_NS_BH18_5.9-6.0			
					Borehole terminated at 6.0 m target depth	
6.5						

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ENVIRONMENTAL BOREHOLE BH19

PROJECT NUMBER SC 210090.01	**DRILLING COMPANY** Stratacore Drilling	**EASTING** 323166.8208
PROJECT NAME North Strathfield	**DRILL RIG** Geoprobe	**NORTHING** 6251857.768
CLIENT AFJV	**TOTAL DEPTH** 0.3 m	**SURFACE ELEVATION** -
ADDRESS Queen St North Strathfield	**Diameter** 150 mm	**LOGGED BY** JP
DRILLING DATE 03/02/2022		**CHECKED BY** GB
COMPLETION	**CASING** uPVC	**SCREEN** uPVC Factory Slotted

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0.05		0.5	EPIC_NS_BH19_0-0.1		Fill: dark brown, clayey gravel, coarse grain, sub angular, well graded, moist, hard	
0.1						
0.15						
0.2						
0.25						
0.3					Refusal on concrete slab at 0.3 m bgl	
0.35						
0.4						
0.45						
0.5						
0.55						
0.6						
0.65						
0.7						
0.75						
0.8						
0.85						
0.9						
0.95						

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ENVIRONMENTAL BOREHOLE BH20

PROJECT NUMBER SC 210090.01
PROJECT NAME North Strathfield
CLIENT AFJV
ADDRESS Queen St North Strathfield
DRILLING DATE 01/02/2022

DRILLING COMPANY Stratacore Drilling
DRILL RIG Geoprobe
TOTAL DEPTH 21.0 m
Diameter 150 mm

EASTING 323171.9802
NORTHING 6251833.162
SURFACE ELEVATION -
LOGGED BY TO
CHECKED BY GB

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
0	HA		EPIC_NS_BH20_0-0.1		Fill: grey, clayey gravel, medium grain, sub angular, moist, medium dense	C/D waste
0.5	NDD				Fill: dark grey, clay gravel, coarse grain, angular, moist, very dense	
	HA		EPIC_NS_BH20_0.7-0.8			Tree roots
1	NDD					
1.5	SFA					
2			EPIC_NS_BH20_2.0-2.1		Fill: brown, gravelly clay, low plasticity, coarse grain, humid, dense	
2.5						
3			EPIC_NS_BH20_3.0-3.1		Gravel, dry	
3.5						
4			EPIC_NS_BH20_4.0-4.1			
4.5					Sandy CLAY: grey/brown, low plasticity, dry, hard	
5			EPIC_NS_BH20_5.0-5.1			
5.5						
6			EPIC_NS_BH20_6.0-6.1		Weathered SHALE: grey/brown, dry, stiff	
6.5						
7			EPIC_NS_BH20_7.0-7.1		Dark grey, dry	
7.5						
8			EPIC_NS_BH20_8.0-8.1			
8.5						
9			EPIC_NS_BH20_9.0-9.1			
9.5						
10			EPIC_NS_BH20_10.0-10.1			
10.5						
11						

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ENVIRONMENTAL BOREHOLE BH20

Depth (m)	Drilling Method	PID	Samples	Graphic Log	Material Description	Additional Observations
12			EPIC_NS_BH20_12.0-12.1		Hard	
15			EPIC_NS_BH20_15.0-15.1			
17					Wet, soft	
18			EPIC_NS_BH20_18.0-18.1			
21			EPIC_NS_BH20_20.9-21.0		Borehole terminated at 21 m target depth	

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APPENDIX F – GROUNDWATER SAMPLING LOGS

LOW FLOW GROUNDWATER SAMPLING FIELD SHEET

Job Name:	N Strathfield DSI	Well No:	MW01 (formerly SMW_BH009)
Job No:	S21090.01	Date:	2/2/21
Recorded By:	JT	Time:	1022
Weather:	O RF		

CONSTRUCTION INFORMATION

Well Type:	☑ Monitor ☐ Extraction ☐ Other:	Well Stick Up (m): (above/below ground level)	-
Well Material:	☑ PVC ☐ SS ☐ Other:	Screen Interval – Top (m BTOC)	
Well Head Condition:	Fair, full of water, HC stain	Screen Interval – Bottom (m BTOC)	

WELL PURGING

PURGE VOLUME		PURGE METHOD	
LNAPL Level Depth (LL in m BTOC):		☐ Pump Type: ☐ Submersible ☐ Bladder ☑ Peristaltic ☐ Other	
Water Level Depth (WL in m BTOC):	3.71	Initial Pump Rate (L/min)	0.2
DNAPL Level Depth (DL in m BTOC):		PUMP INTAKE SETTING	
Total Depth of Well (TD in m BTOC):	4.90	Depth (m BTOC):	4.40
Height of Standing Water Column (TD-WL, in m):		Purged dry?	☐ No ☐ Yes, at _____ L

In accordance with USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504), draw down to be limited to <0.1m during sampling. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology and flow rates up to 1 L/min may be acceptable where draw down is able to be maintained at <0.1m.

FIELD PARAMETER MEASUREMENTS

Time	Volume Purged	Pump Rate	SWL	pH	Electrical Conductivity	ORP or RedOx	DO	DO	Turbidity	Salinity	TDS	Temp.
HH:MM	L	L/min	m BTOC	-	µS/cm	mV	ppm	% Sat	NTU	_____	____	°C
1054	0	0.2	3.72	6.54	1144	84.8	0.20		T	Brack		
1059	0.5	0.2	3.72	6.53	850	92.2	3.54		T	B		
10:59	3	0.2	3.72	6.54	930	90.7	1.17		T	B		
11:04	4.5	0.2	3.72	6.56	1003	80.3	1.25		T	B		
11:09	6.0	0.2	3.72	6.57	1027	71.5	1.21		MT	PB		
	7.5	0.2	3.72	6.58	1014	63.5	1.11		MT	PB		
Acceptable Variation			<0.1m	± 0.1	± 3%	± 10 mv	± 10%	± 10%	± 10%	-	-	-
Results Acceptable? Y/N			Y	Y	Y	Y	Y					

Note: Results are acceptable after all parameters have achieved stabilisation for three successive readings within nominated tolerances as adopted from USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504).

Observations during purging (well condition, turbidity, colour, odour):

Logger Removed. 10:44

Discharge water disposal: ☐ Drums ☐ Other

WELL SAMPLING

SAMPLING METHOD
☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other
☐ Same as purge method
☐ Pump – Type: ☐ Submersible ☐ Bladder ☐ Other

SAMPLE DISTRIBUTION:

Sample ID & QC Samples	Primary	Duplicate	Triplicate	Rinsate Blank	Comments
	MW01	EPIC_NS_W20201		EPIC_NS_RB01	
Analysis/ Bottles					

LOW FLOW GROUNDWATER SAMPLING FIELD SHEET

Job Name:	NStrathfield DSI	Well No:	MW02
Job No:	SC210090.01	Date:	2/12/22
Recorded By:	JP	Time:	0930
Weather:	O R F		

CONSTRUCTION INFORMATION

Well Type:	✓ Monitor ☐ Extraction ☐ Other:	Well Stick Up (m): (above/below ground level)	N/A
Well Material:	✓ PVC ☐ SS ☐ Other:	Screen Interval – Top (m BTOC)	
Well Head Condition:	G	Screen Interval – Bottom (m BTOC)	

WELL PURGING

PURGE VOLUME		PURGE METHOD	
LNAPL Level Depth (LL in m BTOC):	–	☐ Pump Type: ☐ Submersible ✓ Bladder ✓ Peristaltic ☐ Other	
Water Level Depth (WL in m BTOC):	10.52 mBGL	Initial Pump Rate (L/min)	0.2
DNAPL Level Depth (DL in m BTOC):	–	**PUMP INTAKE SETTING**	
Total Depth of Well (TD in m BTOC):	16.34	Depth (m BTOC):	13.1
Height of Standing Water Column (TD-WL, in m):		Purged dry?	☐ No ☐ Yes, at _____ L

In accordance with USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504), draw down to be limited to <0.1m during sampling. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology and flow rates up to 1 L/min may be acceptable where draw down is able to be maintained at <0.1m.

FIELD PARAMETER MEASUREMENTS

Time	Volume Purged	Pump Rate	SWL	pH	Electrical Conductivity	ORP or RedOx	DO	DO	Turbidity	Salinity	TDS	Temp.
HH:MM	L	L/min	m BTOC	-	µS/cm	mV	ppm	% Sat	NTU	_____	_____	°C
17:09	1	0.2	10.53	6.82	5621	9.0	1.31		T	Red		
17:14	3	0.2	10.70	6.86	14532	2866	1.60		MT	Brack		
1722	6	0.4	10.80	6.8	14641	30.3	0.04		MT			
1724	9	0.5	10.92	6.19	48.78	31.2	1.35		C			
1333	10		11.24	6.18	4770	31.2	1.50		C			
Acceptable Variation			<0.1m	± 0.1	± 3%	± 10 mv	± 10%	± 10%	± 10%	-	-	-
Results Acceptable? Y/N				Y	Y	Y	Y					

Note: Results are acceptable after all parameters have achieved stabilisation for three successive readings within nominated tolerances as adopted from USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504).

Observations during purging (well condition, turbidity, colour, odour): Red at start clear at 6L

Logger taken out at 9:19 Peri Pump not working, obtain Bladder Pump

Discharge water disposal: ☐ Drums ☐ Other

WELL SAMPLING

SAMPLING METHOD ✓ Same as purge method

☐ Bailer – Type: ☐ PVC ☐ SS ☐ Teflon ☐ Other ☐ Pump – Type: ☐ Submersible ✓ Bladder ☐ Other

SAMPLE DISTRIBUTION:

Sample ID & QC Samples	Primary	Duplicate	Triplicate	Rinsate Blank	Comments
	MW02				
Analysis/ Bottles					

LOW FLOW GROUNDWATER SAMPLING FIELD SHEET

Job Name:	N Strathfield DSI	Well No:	MW03
Job No:	SC210090.01	Date:	2/12/21
Recorded By:	JP	Time:	12:05
Weather:	OCF		

CONSTRUCTION INFORMATION

Well Type:	☑ Monitor ☐ Extraction ☐ Other:	Well Stick Up (m): (above/below ground level)	-0.1
Well Material:	☑ PVC ☐ SS ☐ Other:	Screen Interval – Top (m BTOC)	
Well Head Condition:	G	Screen Interval – Bottom (m BTOC)	6.86

WELL PURGING

PURGE VOLUME		PURGE METHOD	
LNAPL Level Depth (LL in m BTOC):		☐ Pump Type: ☐ Submersible ☐ Bladder ☑ Peristaltic ☐ Other	
Water Level Depth (WL in m BTOC):	6.16	Initial Pump Rate (L/min)	0.1
DNAPL Level Depth (DL in m BTOC):		PUMP INTAKE SETTING	
Total Depth of Well (TD in m BTOC):	6.86	Depth (m BTOC):	
Height of Standing Water Column (TD-WL, in m):	0.7	Purged dry?	☐ No ☑ Yes, at 3.5 L for sample — allow Recharge

In accordance with USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504), draw down to be limited to <0.1m during sampling. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology and flow rates up to 1 L/min may be acceptable where draw down is able to be maintained at <0.1m.

FIELD PARAMETER MEASUREMENTS

Time	Volume Purged	Pump Rate	SWL	pH	Electrical Conductivity	ORP or RedOx	DO	DO	Turbidity	Salinity	TDS	Temp.
HH:MM	L	L/min	m BTOC	-	µS/cm	mV	ppm	% Sat	NTU	_____	_____	°C
1230	0	0.1	6.28	5.53	6701	59.0	—		C			
1235	0	0.1	6.31	5.45	6100	89.7	—		C			
1240	0	0.1	6.31	5.44	5615	108.4	—					
1250	0	0.1	6.35	5.35	5484	128.4	—					
1258	0	0.1	6.40	5.33	5256	139.3	—					
1308	1	0.1	6.50	5.20	5426	145.8	—					
1308	2.2	0.1	6.50	5.20	5812	149.1	—					
1313	2.5	0.1	6.55	5.37	6325	147.9	—					
1323	3.5	0.1	6.55	5.43	6507	141.0	—					
Acceptable Variation			<0.1m	± 0.1	± 3%	± 10 mv	± 10%	± 10%	± 10%	-	-	-
Results Acceptable? Y/N				Y	Y	Y	Y					

Note: Results are acceptable after all parameters have achieved stabilisation for three successive readings within nominated tolerances as adopted from USEPA Low-flow (minimal drawdown) Ground-water Sampling Procedures, April 1996 (ref. EPA/540/S-95/504).

Observations during purging (well condition, turbidity, colour, odour):

Clear colourless odourless

Discharge water disposal: ☐ Drums ☑ Other

WELL SAMPLING

SAMPLING METHOD

☑ Same as purge method

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

☐ Pump – Type: ☐ Submersible ☐ Bladder ☐ Other

SAMPLE DISTRIBUTION:

Sample ID & QC Samples	Primary	Duplicate	Triplicate	Rinsate Blank	Comments
	MW03				
Analysis/ Bottles					

APPENDIX G – LABORATORY CERTIFICATES

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 287841

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW-CTP-North Strathfield**
Number of Samples	22 Soil
Date samples received	02/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	14/02/2022
Date of Issue	14/02/2022

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Alexander Mitchell Maclean, Senior Chemist
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Lucy Zhu, Asbestos Supervisor
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		287841-1
Your Reference	UNITS	EPIC_NS_BH03_0-0.1
Date Sampled		01/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1

VOCs in soil		
Our Reference		287841-1
Your Reference	UNITS	EPIC_NS_BH03_0-0.1
Date Sampled		01/02/2022
Type of sample		Soil
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	120
Surrogate aaa-Trifluorotoluene	%	94
Surrogate Toluene-d_8	%	97
Surrogate 4-Bromofluorobenzene	%	106

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		287841-1	287841-6	287841-8	287841-9	287841-12
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH04_0.9-1	EPIC_NS_BH05_0.5-0.6	EPIC_NS_BH06_0-0.1	EPIC_NS_BH11_0.6-0.7
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	94	106	103	122	102

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		287841-14	287841-18	287841-20	287841-21	287841-22
Your Reference	UNITS	EPIC_NS_BH10_0-0.1	EPIC_NS_QC01	EPIC_NS_BH07_0-0.1	EPIC_NS_TS01	EPIC_NS_TB01
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	106%	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	106%	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	105%	<1
m+p-xylene	mg/kg	<2	<2	<2	105%	<2
o-Xylene	mg/kg	<1	<1	<1	106%	<1
Naphthalene	mg/kg	<1	<1	<1	[NT]	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	[NT]	<3
Surrogate aaa-Trifluorotoluene	%	115	125	118	122	121

svTRH (C10-C40) in Soil						
Our Reference		287841-1	287841-6	287841-8	287841-9	287841-12
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH04_0.9-1	EPIC_NS_BH05_0.5-0.6	EPIC_NS_BH06_0-0.1	EPIC_NS_BH11_0.6-0.7
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	78	78	76	91	79

svTRH (C10-C40) in Soil				
Our Reference		287841-14	287841-18	287841-20
Your Reference	UNITS	EPIC_NS_BH10_0-0.1	EPIC_NS_QC01	EPIC_NS_BH07_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	77	88	78

PAHs in Soil						
Our Reference		287841-1	287841-2	287841-4	287841-6	287841-8
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH03_0.5-0.6	EPIC_NS_BH04_0.1-0.2	EPIC_NS_BH04_0.9-1	EPIC_NS_BH05_0.5-0.6
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	0.4	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.3	0.5	<0.1	0.2
Pyrene	mg/kg	0.2	0.3	0.5	<0.1	0.2
Benzo(a)anthracene	mg/kg	0.1	0.2	0.2	<0.1	0.1
Chrysene	mg/kg	0.1	0.1	0.2	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	0.3	0.4	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.1	0.2	0.3	<0.05	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	0.1	0.2	<0.1	0.1
Total +ve PAH's	mg/kg	1.1	1.7	2.9	<0.05	0.74
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	89	88	88	90	87

PAHs in Soil						
Our Reference		287841-9	287841-10	287841-12	287841-14	287841-15
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH05_0.9-1.0	EPIC_NS_BH11_0.6-0.7	EPIC_NS_BH10_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	11/02/2022	14/02/2022	14/02/2022	14/02/2022	11/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	0.2	<0.1	<0.1	0.2
Anthracene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.7	0.2	<0.1	0.1	0.7
Pyrene	mg/kg	0.6	0.2	<0.1	0.1	0.6
Benzo(a)anthracene	mg/kg	0.2	0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	0.3	0.1	<0.1	<0.1	0.3
Benzo(b,j+k)fluoranthene	mg/kg	0.5	0.2	<0.2	<0.2	0.5
Benzo(a)pyrene	mg/kg	0.3	0.1	<0.05	0.1	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	<0.1	0.2
Total +ve PAH's	mg/kg	2.9	1.3	<0.05	0.4	3.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	89	88	88	99

PAHs in Soil				
Our Reference		287841-17	287841-18	287841-20
Your Reference	UNITS	EPIC_NS_BH09_0.9-1.0	EPIC_NS_QC01	EPIC_NS_BH07_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.2	0.2
Pyrene	mg/kg	<0.1	0.2	0.2
Benzo(a)anthracene	mg/kg	<0.1	0.1	0.1
Chrysene	mg/kg	<0.1	0.1	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.2	0.2
Benzo(a)pyrene	mg/kg	<0.05	0.2	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.1	0.1
Total +ve PAH's	mg/kg	<0.05	1.2	1.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	88	86	90

Organochlorine Pesticides in soil				
Our Reference		287841-9	287841-11	287841-15
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH11_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	11/02/2022	11/02/2022	11/02/2022
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	77	80

Organophosphorus Pesticides in Soil				
Our Reference		287841-9	287841-11	287841-15
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH11_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	11/02/2022	11/02/2022	11/02/2022
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	84	77	80

PCBs in Soil			
Our Reference		287841-9	287841-15
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022
Type of sample		Soil	Soil
Date extracted	-	09/02/2022	09/02/2022
Date analysed	-	11/02/2022	11/02/2022
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCMX	%	84	80

Misc Soil - Inorg		
Our Reference		287841-15
Your Reference	UNITS	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Total Phenolics (as Phenol)	mg/kg	<5

Acid Extractable metals in soil						
Our Reference		287841-1	287841-2	287841-4	287841-6	287841-8
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH03_0.5-0.6	EPIC_NS_BH04_0.1-0.2	EPIC_NS_BH04_0.9-1	EPIC_NS_BH05_0.5-0.6
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	<4	12	11	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	15	10	10	9
Copper	mg/kg	56	47	48	12	30
Lead	mg/kg	23	38	30	19	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	11	8	<1	6
Zinc	mg/kg	67	53	64	4	36

Acid Extractable metals in soil						
Our Reference		287841-9	287841-10	287841-12	287841-14	287841-15
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH05_0.9-1.0	EPIC_NS_BH11_0.6-0.7	EPIC_NS_BH10_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	11	<4	7	15	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	11	9	9	10
Copper	mg/kg	35	21	30	48	38
Lead	mg/kg	23	16	24	30	26
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	4	15	10	12
Zinc	mg/kg	55	27	55	46	60

Acid Extractable metals in soil					
Our Reference		287841-17	287841-18	287841-20	287841-23
Your Reference	UNITS	EPIC_NS_BH09_0.9-1.0	EPIC_NS_QC01	EPIC_NS_BH07_0-0.1	EPIC_NS_BH06_0-0.1 - [TRIPLICATE]
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	8	5	10	16
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	39	9	8	13
Copper	mg/kg	3	25	44	56
Lead	mg/kg	15	42	31	34
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	6	14	18
Zinc	mg/kg	8	40	57	75

Moisture						
Our Reference		287841-1	287841-2	287841-4	287841-6	287841-8
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH03_0.5-0.6	EPIC_NS_BH04_0.1-0.2	EPIC_NS_BH04_0.9-1	EPIC_NS_BH05_0.5-0.6
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	8.5	16	9.9	17	13

Moisture						
Our Reference		287841-9	287841-10	287841-11	287841-12	287841-14
Your Reference	UNITS	EPIC_NS_BH06_0-0.1	EPIC_NS_BH05_0.9-1.0	EPIC_NS_BH11_0-0.1	EPIC_NS_BH11_0.6-0.7	EPIC_NS_BH10_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	13	5.0	17	2.9	13

Moisture					
Our Reference		287841-15	287841-17	287841-18	287841-20
Your Reference	UNITS	EPIC_NS_BH09_0-0.1	EPIC_NS_BH09_0.9-1.0	EPIC_NS_QC01	EPIC_NS_BH07_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	6.5	23	13	4.9

Asbestos ID - soils						
Our Reference		287841-1	287841-8	287841-12	287841-14	287841-20
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH05_0.5-0.6	EPIC_NS_BH11_0.6-0.7	EPIC_NS_BH10_0-0.1	EPIC_NS_BH07_0-0.1
Date Sampled		01/02/2022	01/02/2022	01/02/2022	01/02/2022	01/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
Sample mass tested	g	Approx. 40g	Approx. 35g	Approx. 35g	Approx. 30g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

PFAS in Soils Extended			
Our Reference		287841-1	287841-15
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022
Type of sample		Soil	Soil
Date prepared	-	10/02/2022	10/02/2022
Date analysed	-	10/02/2022	10/02/2022
Perfluorobutanesulfonic acid	µg/kg	<5	<5
Perfluoropentanesulfonic acid	µg/kg	<5	<5
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<5	<5
Perfluoroheptanesulfonic acid	µg/kg	<5	<5
Perfluorooctanesulfonic acid PFOS	µg/kg	<5	<5
Perfluorodecanesulfonic acid	µg/kg	<5	<5
Perfluorobutanoic acid	µg/kg	<5	<5
Perfluoropentanoic acid	µg/kg	<5	<5
Perfluorohexanoic acid	µg/kg	<5	<5
Perfluoroheptanoic acid	µg/kg	<5	<5
Perfluorooctanoic acid PFOA	µg/kg	<5	<5
Perfluorononanoic acid	µg/kg	<5	<5
Perfluorodecanoic acid	µg/kg	<5	<5
Perfluoroundecanoic acid	µg/kg	<5	<5
Perfluorododecanoic acid	µg/kg	<5	<5
Perfluorotridecanoic acid	µg/kg	<5	<5
Perfluorotetradecanoic acid	µg/kg	<5	<5
4:2 FTS	µg/kg	<5	<5
6:2 FTS	µg/kg	<5	<5
8:2 FTS	µg/kg	<5	<5
10:2 FTS	µg/kg	<5	<5
Perfluorooctane sulfonamide	µg/kg	<5	<5
N-Methyl perfluorooctane sulfonamide	µg/kg	<5	<5
N-Ethyl perfluorooctanesulfon amide	µg/kg	<5	<5
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<5	<5
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<5	<5
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<5	<5
Surrogate $^{13}C_8$ *PFOS*	%	104	99
Surrogate $^{13}C_2$ *PFOA*	%	103	98
Extracted ISTD $^{13}C_3$ *PFBS*	%	102	104
Extracted ISTD $^{18}O_2$ *PFHxS*	%	106	107
Extracted ISTD $^{13}C_4$ *PFOS*	%	101	105

PFAS in Soils Extended			
Our Reference		287841-1	287841-15
Your Reference	UNITS	EPIC_NS_BH03_0-0.1	EPIC_NS_BH09_0-0.1
Date Sampled		01/02/2022	01/02/2022
Type of sample		Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	104	100
Extracted ISTD $^{13}C_3$ *PFPeA*	%	107	107
Extracted ISTD $^{13}C_2$ *PFHxA*	%	106	112
Extracted ISTD $^{13}C_4$ *PFHpA*	%	110	116
Extracted ISTD $^{13}C_4$ *PFOA*	%	114	118
Extracted ISTD $^{13}C_5$ *PFNA*	%	113	114
Extracted ISTD $^{13}C_2$ *PFDA*	%	113	114
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	124	132
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	139	143
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	94	102
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	118	118
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	125	127
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	140	161
Extracted ISTD $^{13}C_8$ *FOSA*	%	115	106
Extracted ISTD d_3 *N MeFOSA*	%	115	90
Extracted ISTD d_5 *N EtFOSA*	%	115	113
Extracted ISTD d_7 *N MeFOSE*	%	113	97
Extracted ISTD d_9 *N EtFOSE*	%	115	110
Extracted ISTD d_3 *N MeFOSAA*	%	107	106
Extracted ISTD d_5 *N EtFOSAA*	%	120	124
Total Positive PFHxS & PFOS	µg/kg	<5	<5
Total Positive PFOS & PFOA	µg/kg	<5	<5
Total Positive PFHxS & PFOS & PFOA	µg/kg	<5	<5
Total Positive PFAS WA DER (n=10)	µg/kg	<5	<5
Total Positive PFAS	µg/kg	<5	<5

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	125	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	1	<1	<1	0	131	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	109	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	111	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	1	<1	<1	0	116	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	109	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	1	<1	<1	0	112	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	1	<1	<1	0	113	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	121	1	120	115	4	110	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	122	1	94	112	17	121	[NT]
Surrogate Toluene-d_8	%		Org-023	97	1	97	97	0	103	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	106	1	106	106	0	105	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	113	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	113	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	124	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	123	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	104	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	108	[NT]
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	112	[NT]
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	122	1	94	112	17	121	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	9	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	9	09/02/2022	09/02/2022		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	9	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	9	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	9	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	9	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	9	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	9	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	9	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	9	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	9	122	104	16	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	1	10/02/2022	10/02/2022		09/02/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	95	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	83	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	109	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	95	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	83	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	109	[NT]
Surrogate o-Terphenyl	%		Org-020	80	1	78	78	0	95	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	9	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	9	10/02/2022	10/02/2022		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	9	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	9	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	9	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	9	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	9	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	9	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	9	91	88	3	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			11/02/2022	1	14/02/2022	14/02/2022		11/02/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	113	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	93	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	0.1	0	124	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.3	40	114	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.3	40	125	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	77	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	0.2	0.3	40	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	0.1	0.2	67	98	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	122	1	89	89	0	109	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			[NT]	9	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			[NT]	9	11/02/2022	11/02/2022		14/02/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	97	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	105	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	101	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	9	0.2	<0.1	67	102	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	9	0.7	0.2	111	100	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	9	0.6	0.2	100	101	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	9	0.2	0.1	67	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	9	0.3	0.2	40	69	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	9	0.5	0.2	86	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	9	0.3	0.1	100	106	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	9	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	9	0.2	<0.1	67	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	9	93	95	2	90	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	9	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			11/02/2022	9	11/02/2022	11/02/2022		11/02/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	78	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	99	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	99	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	103	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	120	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	131	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	128	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	111	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	104	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	74	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	98	9	84	79	6	92	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	9	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			11/02/2022	9	11/02/2022	11/02/2022		11/02/2022	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	72	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	102	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	81	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	65	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	98	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	93	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	88	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	98	9	84	79	6	92	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			09/02/2022	9	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			11/02/2022	9	11/02/2022	11/02/2022		11/02/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	115	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	9	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	98	9	84	79	6	92	[NT]

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	1	<4	5	22	101	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	96	[NT]
Chromium	mg/kg	1	Metals-020	<1	1	16	18	12	99	[NT]
Copper	mg/kg	1	Metals-020	<1	1	56	42	29	101	[NT]
Lead	mg/kg	1	Metals-020	<1	1	23	19	19	98	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	101	[NT]
Nickel	mg/kg	1	Metals-020	<1	1	13	12	8	99	[NT]
Zinc	mg/kg	1	Metals-020	<1	1	67	55	20	100	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	9	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	9	09/02/2022	09/02/2022		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	9	11	16	37	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	9	<0.4	0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	9	12	11	9	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	9	35	51	37	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	9	23	34	39	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	9	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	9	9	15	50	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	9	55	65	17	[NT]	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	287841-15
Date prepared	-			10/02/2022	1	10/02/2022	10/02/2022		10/02/2022	10/02/2022
Date analysed	-			10/02/2022	1	10/02/2022	10/02/2022		10/02/2022	10/02/2022
Perfluorobutanesulfonic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	103	100
Perfluoropentanesulfonic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	92	91
Perfluorohexanesulfonic acid - PFHxS	µg/kg	5	Org-029	<5	1	<5	<5	0	93	93
Perfluoroheptanesulfonic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	95	91
Perfluorooctanesulfonic acid PFOS	µg/kg	5	Org-029	<5	1	<5	<5	0	101	99
Perfluorodecanesulfonic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	103	87
Perfluorobutanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	99	100
Perfluoropentanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	98	98
Perfluorohexanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	99	99
Perfluoroheptanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	99	91
Perfluorooctanoic acid PFOA	µg/kg	5	Org-029	<5	1	<5	<5	0	94	103
Perfluorononanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	100	99
Perfluorodecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	100	107
Perfluoroundecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	104	105
Perfluorododecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	96	98
Perfluorotridecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	89	89
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	103	103
4:2 FTS	µg/kg	5	Org-029	<5	1	<5	<5	0	100	103
6:2 FTS	µg/kg	5	Org-029	<5	1	<5	<5	0	93	94
8:2 FTS	µg/kg	5	Org-029	<5	1	<5	<5	0	102	96
10:2 FTS	µg/kg	5	Org-029	<5	1	<5	<5	0	97	107
Perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	1	<5	<5	0	97	91
N-Methyl perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	1	<5	<5	0	99	98
N-Ethyl perfluorooctanesulfon amide	µg/kg	5	Org-029	<5	1	<5	<5	0	99	99
N-Me perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	1	<5	<5	0	110	110
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	1	<5	<5	0	103	103
MePerfluorooctanesulf- amid oacetic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	105	99
EtPerfluorooctanesulf amid oacetic acid	µg/kg	5	Org-029	<5	1	<5	<5	0	95	98
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	105	1	104	101	3	104	102
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	95	1	103	110	7	97	102

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	287841-15
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	104	1	102	102	0	102	103
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	107	1	106	111	5	108	109
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	103	1	101	107	6	101	103
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	105	1	104	105	1	103	98
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	113	1	107	106	1	105	106
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	108	1	106	112	6	107	108
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	114	1	110	117	6	111	118
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	115	1	114	111	3	115	109
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	113	1	113	116	3	113	115
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	107	1	113	119	5	106	111
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	114	1	124	121	2	108	130
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	120	1	139	147	6	114	146
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	96	1	94	102	8	88	96
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	110	1	118	113	4	110	118
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	119	1	125	128	2	118	121
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	117	1	140	144	3	116	155
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	117	1	115	115	0	110	109
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	114	1	115	114	1	111	113
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	116	1	115	116	1	114	113
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	114	1	113	110	3	110	110

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	287841-15
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	108	1	115	118	3	112	111
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	104	1	107	113	5	103	114
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	115	1	120	118	2	110	123

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 287841-9 for Ni. Therefore a triplicate result has been issued as laboratory sample number 287841-23.

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

PAH_S:The RPD for duplicate results is accepted due to the non homogenous nature of sample/s 287841-9,9d.

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SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW-CTP-North Strathfield
Envirolab Reference	287841
Date Sample Received	02/02/2022
Date Instructions Received	07/02/2022
Date Results Expected to be Reported	14/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	22 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	17
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBsin Soil	Misc Soil - Inorg	Acid Extractable metalsin soil	Asbestos ID - soils	PFAS in Soils Extended	On Hold
EPIC_NS_BH03_0-0.1	✓	✓	✓	✓					✓	✓	✓	
EPIC_NS_BH03_0.5-0.6				✓					✓			
EPIC_NS_BH03_0.9-1												✓
EPIC_NS_BH04_0.1-0.2				✓					✓			
EPIC_NS_BH04_0.5-0.6												✓
EPIC_NS_BH04_0.9-1		✓	✓	✓					✓			
EPIC_NS_BH05_0.1-0.2												✓
EPIC_NS_BH05_0.5-0.6		✓	✓	✓					✓	✓		
EPIC_NS_BH06_0-0.1		✓	✓	✓	✓	✓	✓		✓			
EPIC_NS_BH05_0.9-1.0				✓					✓			
EPIC_NS_BH11_0-0.1					✓	✓						
EPIC_NS_BH11_0.6-0.7		✓	✓	✓					✓	✓		
EPIC_NS_BH11_0.9-1.0												✓
EPIC_NS_BH10_0-0.1		✓	✓	✓					✓	✓		
EPIC_NS_BH09_0-0.1				✓	✓	✓	✓	✓	✓		✓	
EPIC_NS_BH09_0.7-0.8												✓
EPIC_NS_BH09_0.9-1.0				✓					✓			
EPIC_NS_QC01		✓	✓	✓					✓			
EPIC_NS_QC02												✓
EPIC_NS_BH07_0-0.1		✓	✓	✓					✓	✓		
EPIC_NS_TS01		✓										
EPIC_NS_TB01		✓										

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Updated COC: 02/02 @ 17:59

287841 Updated COC
02/02/2022 11:30

epic

Chain of Custody Record

Project No:	621X40.01	Lab:	Envirolab
Project/Site:	SMW-CTP-North Strathfield	Lab Quote No:	
Project Manager:	MST	Lab Batch No:	
Sampled By:	JP	Date Results Required:	Standard
Phone:	0417 217 179	Sample Disposal After:	
Page:	1 of 1		
Number of Eskies:	1		

LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE: Soil / Solid: 150-250ml Glass Jar	250ml Plastic Jar	Plastic Bag	Water / Liquid: 2x 40ml Amber Vial	100-500ml Amber Bottle	60ml Metals	60ml Nutrients	250-500ml Plastic (Unpreserved)	60-250ml Plastic (PFAS)	Other	ANALYSIS REQUIRED: Combo 3	Combo 3A	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	
1	EPIC_NS_BH03_0.5-0.6	1/2/22	S	1	1	1									X					X	X	
2	EPIC_NS_BH03_0.5-0.6			1	1	1										X						
3	EPIC_NS_BH03_0.4-1			1	0	1										X						
4	EPIC_NS_BH04_0.1-0.2			1	1	2										X						
5	EPIC_NS_BH04_0.5-0.6			1	0	2										X						
6	EPIC_NS_BH04_0.9-1			1	0	2								X								
7	EPIC_NS_BH05_0.1-0.2			1	1	1																
8	EPIC_NS_BH05_0.5-0.6			1	0	1									X							
9	EPIC_NS_BH06_0-0.1			1	0	1								X			X	X				
10	EPIC_NS_BH05_0.9-1.0			1	0	1										X						
11	EPIC_NS_BH11_0-0.1			1	0	1									WK		X					
12	EPIC_NS_BH11_0.6-0.7			1	1	1									X							
13	EPIC_NS_BH11_0.9-1.0			1	0	1																
14	EPIC_NS_BH06_0-0.1			1	1	1									X							
15	EPIC_NS_BH09_0.2-0.3			1	1	1										X	X	X	X		X	
16	EPIC_NS_BH09_0.6-0.7			1	0	1																
17	EPIC_NS_BH09_0.9-1.0	Y		1	0	1										X						
	[redacted]			1	0	0																
18	EPIC_NS_QC01	1/2		1	0	0								X								
19	EPIC_NS_QC02		J	1	0	0								X								
20	EPIC_NS_BH02_0.0-0.1		TOTALS	1	0	1									X							

Relinquished By:			Received By:		
NAME: Jingka Pan	SIGNATURE:	DATE: 2/2/22	NAME:	SIGNATURE:	DATE:

Custody Seals Intact: Y N
Samples Received Chilled: Y N
Method of Shipment:

NOTES:

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane
web
email

(21) Epic_NS_TS01
(22) Epic_NS_TB01
} Analyse for vTRH, BTEX please.

*Please send QC02 to Eurofins for analysis

287841

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 287841-A

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW-CTP-North Strathfield**
Number of Samples	additional analysis
Date samples received	02/02/2022
Date completed instructions received	16/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/02/2022
Date of Issue	23/02/2022

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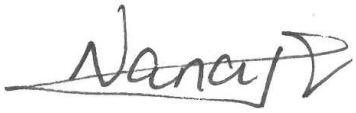
Results Approved By
Alexander Mitchell Maclean, Senior Chemist
Dragana Tomas, Senior Chemist
Josh Williams, LC Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		287841-A-16
Your Reference	UNITS	EPIC_NS_BH09_0.7-0.8
Date Sampled		01/02/2022
Type of sample		Soil
Date extracted	-	17/02/2022
Date analysed	-	17/02/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1

VOCs in soil		
Our Reference		287841-A-16
Your Reference	UNITS	EPIC_NS_BH09_0.7-0.8
Date Sampled		01/02/2022
Type of sample		Soil
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	104
Surrogate aaa-Trifluorotoluene	%	87
Surrogate Toluene-d_8	%	100
Surrogate 4-Bromofluorobenzene	%	94

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		287841-A-16
Your Reference	UNITS	EPIC_NS_BH09_0.7-0.8
Date Sampled		01/02/2022
Type of sample		Soil
Date extracted	-	17/02/2022
Date analysed	-	17/02/2022
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	87

svTRH (C10-C40) in Soil		
Our Reference		287841-A-16
Your Reference	UNITS	EPIC_NS_BH09_0.7-0.8
Date Sampled		01/02/2022
Type of sample		Soil
Date extracted	-	17/02/2022
Date analysed	-	18/02/2022
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	74

Moisture		
Our Reference		287841-A-16
Your Reference	UNITS	EPIC_NS_BH09_0.7-0.8
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	17/02/2022
Date analysed	-	18/02/2022
Moisture	%	12

PFAS in Soils Extended		
Our Reference		287841-A-6
Your Reference	UNITS	EPIC_NS_BH04_0.9-1
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	17/02/2022
Date analysed	-	17/02/2022
Perfluorobutanesulfonic acid	µg/kg	<5
Perfluoropentanesulfonic acid	µg/kg	<5
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<5
Perfluoroheptanesulfonic acid	µg/kg	<5
Perfluorooctanesulfonic acid PFOS	µg/kg	<5
Perfluorodecanesulfonic acid	µg/kg	<5
Perfluorobutanoic acid	µg/kg	<5
Perfluoropentanoic acid	µg/kg	<5
Perfluorohexanoic acid	µg/kg	<5
Perfluoroheptanoic acid	µg/kg	<5
Perfluorooctanoic acid PFOA	µg/kg	<5
Perfluorononanoic acid	µg/kg	<5
Perfluorodecanoic acid	µg/kg	<5
Perfluoroundecanoic acid	µg/kg	<5
Perfluorododecanoic acid	µg/kg	<5
Perfluorotridecanoic acid	µg/kg	<5
Perfluorotetradecanoic acid	µg/kg	<5
4:2 FTS	µg/kg	<5
6:2 FTS	µg/kg	<5
8:2 FTS	µg/kg	<5
10:2 FTS	µg/kg	<5
Perfluorooctane sulfonamide	µg/kg	<5
N-Methyl perfluorooctane sulfonamide	µg/kg	<5
N-Ethyl perfluorooctanesulfon amide	µg/kg	<5
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<5
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<5
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<5
Surrogate $^{13}C_8$ *PFOS*	%	99
Surrogate $^{13}C_2$ *PFOA*	%	99
Extracted ISTD $^{13}C_3$ *PFBS*	%	91
Extracted ISTD $^{18}O_2$ *PFHxS*	%	88
Extracted ISTD $^{13}C_4$ *PFOS*	%	91

PFAS in Soils Extended		
Our Reference		287841-A-6
Your Reference	UNITS	EPIC_NS_BH04_0.9-1
Date Sampled		01/02/2022
Type of sample		Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	85
Extracted ISTD $^{13}C_3$ *PFPeA*	%	88
Extracted ISTD $^{13}C_2$ *PFHxA*	%	88
Extracted ISTD $^{13}C_4$ *PFHpA*	%	92
Extracted ISTD $^{13}C_4$ *PFOA*	%	92
Extracted ISTD $^{13}C_5$ *PFNA*	%	96
Extracted ISTD $^{13}C_2$ *PFDA*	%	100
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	129
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	94
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	92
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	96
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	108
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	122
Extracted ISTD $^{13}C_8$ *FOSA*	%	105
Extracted ISTD d_3 *N MeFOSA*	%	92
Extracted ISTD d_5 *N EtFOSA*	%	98
Extracted ISTD d_7 *N MeFOSE*	%	96
Extracted ISTD d_9 *N EtFOSE*	%	100
Extracted ISTD d_3 *N MeFOSAA*	%	82
Extracted ISTD d_5 *N EtFOSAA*	%	84
Total Positive PFHxS & PFOS	µg/kg	<5
Total Positive PFOS & PFOA	µg/kg	<5
Total Positive PFHxS & PFOS & PFOA	µg/kg	<5
Total Positive PFAS WA DER (n=10)	µg/kg	<5
Total Positive PFAS	µg/kg	<5

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Date analysed	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	81	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	98	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate Toluene-d_8	%		Org-023	101	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	91	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Date analysed	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	92	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	85	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	91	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	97	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date extracted	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Date analysed	-			18/02/2022	[NT]	[NT]	[NT]	[NT]	18/02/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	81	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	81	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
Surrogate o-Terphenyl	%		Org-020	86	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	287841-A-6
Date prepared	-			17/02/2022	6	17/02/2022	17/02/2022		17/02/2022	17/02/2022
Date analysed	-			17/02/2022	6	17/02/2022	17/02/2022		17/02/2022	17/02/2022
Perfluorobutanesulfonic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	104	102
Perfluoropentanesulfonic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	107	100
Perfluorohexanesulfonic acid - PFHxS	µg/kg	5	Org-029	<5	6	<5	<5	0	105	103
Perfluoroheptanesulfonic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	105	105
Perfluorooctanesulfonic acid PFOS	µg/kg	5	Org-029	<5	6	<5	<5	0	105	103
Perfluorodecanesulfonic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	106	105
Perfluorobutanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	99	101
Perfluoropentanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	100	100
Perfluorohexanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	104	99
Perfluoroheptanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	99	97
Perfluorooctanoic acid PFOA	µg/kg	5	Org-029	<5	6	<5	<5	0	99	100
Perfluorononanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	95	96
Perfluorodecanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	96	97
Perfluoroundecanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	108	104
Perfluorododecanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	98	106
Perfluorotridecanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	87	125
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	102	104
4:2 FTS	µg/kg	5	Org-029	<5	6	<5	<5	0	102	106
6:2 FTS	µg/kg	5	Org-029	<5	6	<5	<5	0	96	98
8:2 FTS	µg/kg	5	Org-029	<5	6	<5	<5	0	104	101
10:2 FTS	µg/kg	5	Org-029	<5	6	<5	<5	0	133	129
Perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	6	<5	<5	0	105	107
N-Methyl perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	6	<5	<5	0	101	103
N-Ethyl perfluorooctanesulfon amide	µg/kg	5	Org-029	<5	6	<5	<5	0	100	97
N-Me perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	6	<5	<5	0	115	104
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	6	<5	<5	0	118	103
MePerfluorooctanesulf- amid oacetic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	103	108
EtPerfluorooctanesulf amid oacetic acid	µg/kg	5	Org-029	<5	6	<5	<5	0	102	97
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	97	6	99	99	0	104	102
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	99	6	99	96	3	99	98

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	287841-A-6
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	94	6	91	94	3	90	90
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	92	6	88	96	9	89	93
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	99	6	91	101	10	90	95
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	93	6	85	87	2	91	86
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	95	6	88	95	8	91	90
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	92	6	88	91	3	90	91
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	91	6	92	96	4	92	96
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	93	6	92	100	8	96	98
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	102	6	96	98	2	98	99
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	105	6	100	108	8	106	105
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	126	6	129	130	1	116	119
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	106	6	94	103	9	94	92
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	104	6	92	99	7	96	94
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	97	6	96	97	1	99	94
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	106	6	108	115	6	107	110
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	135	6	122	130	6	111	124
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	107	6	105	107	2	102	101
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	93	6	92	98	6	99	94
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	101	6	98	102	4	101	101
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	95	6	96	101	5	95	94

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	287841-A-6
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	97	6	100	100	0	90	105
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	106	6	82	93	13	103	79
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	105	6	84	90	7	109	93

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 287841-A
TAT: Standard
Due: 23/02/2022
MT

287841-A

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Wednesday, 16 February 2022 3:33 PM
To: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Sample receipt team,

Could you also please schedule the additional analysis below (report number in brackets):

Standard TAT is okay.

Asbestos
BH12_0.5-0.6 (288341)
BH14_1.0-1.2 (288341)
BH16_2.0-2.1 (288341)
BH20_0.5-0.6 (288141)

TRH/BTEX
16 BH09_0.7-0.8 (287841)
BH12_0.5-0.6 (288341)
BH16_5.9-6.0 (288341)

VOCs
16 BH09_0.7-0.8 (287841)

PFAS → Could you please update the PFAS in soil LOR to 5 microgram/kg
6 BH04_0.9-1.0 (287841)
BH20_3.0-3.1 (288141)

Thank you,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

From: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Sent: Wednesday, 16 February 2022 2:37 PM

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 287841-B

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW-CTP-North Strathfield**
Number of Samples	additional analysis
Date samples received	02/02/2022
Date completed instructions received	17/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	24/02/2022
Date of Issue	24/02/2022

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Results Approved By
Diego Bigolin, Inorganics Supervisor
Giovanni Agosti, Group Technical Manager

Authorised By

Nancy Zhang, Laboratory Manager

Misc Inorg - Soil		
Our Reference		287841-B-12
Your Reference	UNITS	EPIC_NS_BH11_0.6-0.7
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	22/02/2022
Date analysed	-	22/02/2022
pH 1:5 soil:water	pH Units	9.1

CEC		
Our Reference		287841-B-12
Your Reference	UNITS	EPIC_NS_BH11_0.6-0.7
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	23/02/2022
Date analysed	-	23/02/2022
Exchangeable Ca	meq/100g	8.5
Exchangeable K	meq/100g	0.4
Exchangeable Mg	meq/100g	4.1
Exchangeable Na	meq/100g	1.2
Cation Exchange Capacity	meq/100g	14

Acid Extractable metals in soil		
Our Reference		287841-B-12
Your Reference	UNITS	EPIC_NS_BH11_0.6-0.7
Date Sampled		01/02/2022
Type of sample		Soil
Date prepared	-	23/02/2022
Date analysed	-	23/02/2022
Iron	mg/kg	40,000

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			22/02/2022	[NT]	[NT]	[NT]	[NT]	22/02/2022	[NT]
Date analysed	-			22/02/2022	[NT]	[NT]	[NT]	[NT]	22/02/2022	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/02/2022	12	23/02/2022	23/02/2022		23/02/2022	[NT]
Date analysed	-			23/02/2022	12	23/02/2022	23/02/2022		23/02/2022	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	12	8.5	11	26	99	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	12	0.4	0.4	0	106	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	12	4.1	3.7	10	101	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	12	1.2	0.9	29	122	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Date analysed	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Iron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]

Result Definitions

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NA	Test not required
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RPD	Relative Percent Difference
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Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

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When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

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Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

pH Samples were out of the recommended holding time for this analysis.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 287841-B
TAT: Standard
Due: 24/02/2022
MT.

287841-B

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Thursday, 17 February 2022 5:10 PM
To: Ming To <MTo@envirolab.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Ming,

Could you also please undertake analysis of pH, CEC, and iron on the following samples:

12 BH11_0.6-0.7
BH12_0.1-0.2 288341

Many thanks,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

From: Ming To <MTo@envirolab.com.au>
Sent: Wednesday, 16 February 2022 5:33 PM
To: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>; Jeremy Faircloth <JFaircloth@envirolab.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Hi Morgan,

No worries, I'll book these in for you.

Kind Regards,

Ming To | Customer Service | Envirolab Services

Great Science. Great Service.

12 Ashley Street Chatswood NSW 2067
T 612 9910 6200
E MTo@envirolab.com.au | W www.envirolab.com.au

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288132

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Lab Results
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, Nth Strathfield, NS-AFJV**
Number of Samples	5 Filter
Date samples received	04/02/2022
Date completed instructions received	04/02/2022
Sampler Name	-
Date Sampled	02/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/02/2022
Date of Issue	07/02/2022

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Approved Counter: Ridwan Wijaya
Analysed by Asbestos Count Approved Signatory: Lucy Zhu
Results Approved By
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Fibre Counting + Concentration						
Our Reference		288132-1	288132-2	288132-3	288132-4	288132-5
Your Reference	UNITS	1 N	2 S	3 E	4 W	5 Blank
Pump ID		A001	A002	A003	A004	.
Type of sample		Filter	Filter	Filter	Filter	Filter
Date analysed	-	07/02/2022	07/02/2022	07/02/2022	07/02/2022	07/02/2022
Fibres	-	0.0	0.0	0.0	0.0	0.0
Fields	-	100	100	100	100	100
Effective Filter Area	mm^2	384.47	384.47	384.47	384.47	384.47
Graticule Diameter	µm	100	100	100	100	100
Volume Sampled	Litres	998	996	994	992	-
Total Sample Time	Min	499	498	497	496	0
Fibre Concentration*	Fibres/mL	<0.01	<0.01	<0.01	<0.01	-

Method ID	Methodology Summary
ASB-002	Estimation of Airborne Asbestos Fibres by the Membrane Filter Method. Filters examined in accordance with NOHSC:3003 (April 2005) Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres and Envirolab in-house method ASB-002. The microscope constant for Carl Zeiss Axio Lab.A1 (Sydney Laboratory) calculated using 25mm filter is 48952. The microscope constant for Olympus BX41 (Perth Laboratory) calculated using 25mm filter is 46981. These constants are to be used to calculate fibres/mL concentration for asbestos fibre air monitoring filters. If less than 10 fibres/100 graticule areas is observed, the figure of 10 fibres/100 graticule areas is the minimum that can be used to calculate airborne fibre concentration as per NOHSC: 3003(April 2005). Note - air volume measurements are not covered by Envirolab's NATA accreditation.
Disclaimer	Please note that sampling strategies are outside the control of the laboratory and are therefore not covered under NATA accreditation.

Report Comments

Volume Measurement data for fibre samples were supplied by "client". Envirolab Group does not take the resposibility for sample collection and hence the concentration data is not covered by the Envirolab Group's NATA Accreditation.

AIR QUALITY MONITORING SUMMARY SHEET – AIRBORNE ASBESTOS DUST

Client: AECOM				Project: NS - AECOM				Date: 2.2.22			
Location: WM Smithfield				Project No.: SC210000.01				Tested by: TO			
Date	**Sample No.**	**Cartridge No.**	**Pump Serial No.**	**Location**	**Start Time**	**Finish Time**	**Total Time**	**Flow On**	**Flow Off**	**Total Volume**	**Result (f/ml)**
2/2/22	1	01	A001	N	745	16.04		2.0	2.0		
2/2	2	02	A002	S	747	16.05		2.0	2.0		
2/2	3	03	A003	E	748	16.07		2.0	2.0		
2/2	4	04	A004	W	750	16.06		2.0	2.0		
2/2	5	05		-							

Enviroteq Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288132

Date Received: 4-2-22
Time Received: 1820
Received By:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Tape

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288141

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW-CTP-North Strathfield**
Number of Samples	15 Soil, 1 Water
Date samples received	07/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	14/02/2022
Date of Issue	14/02/2022

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Jeremy Faircloth, Operations Manager, Sydney
Loren Bardwell, Development Chemist
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in soil		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1

VOCs in soil		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	115
Surrogate aaa-Trifluorotoluene	%	85
Surrogate Toluene-d_8	%	98
Surrogate 4-Bromofluorobenzene	%	107

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		288141-1	288141-2	288141-5	288141-12
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0	EPIC_NS_BH20_0-0.01	EPIC_NS_BH20_3.0-3.1	EPIC_NS_BH20_10-10.1
Depth		0.9-1.0	0-0.1	3.0-3.1	10-10.1
Date Sampled		2.2.22	2.2.22	2.2.22	2.2.22
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	111	85	118	118

svTRH (C10-C40) in Soil					
Our Reference		288141-1	288141-2	288141-5	288141-12
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0	EPIC_NS_BH20_0-0.01	EPIC_NS_BH20_3.0-3.1	EPIC_NS_BH20_10-10.1
Depth		0.9-1.0	0-0.1	3.0-3.1	10-10.1
Date Sampled		2.2.22	2.2.22	2.2.22	2.2.22
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50
Surrogate o-Terphenyl	%	76	81	79	79

PAHs in Soil						
Our Reference		288141-1	288141-2	288141-5	288141-8	288141-12
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0	EPIC_NS_BH20_0-0.01	EPIC_NS_BH20_3.0-3.1	EPIC_NS_BH20_6.0-6.1	EPIC_NS_BH20_10-10.1
Depth		0.9-1.0	0-0.1	3.0-3.1	6.0-6.1	10-10.1
Date Sampled		2.2.22	2.2.22	2.2.22	2.2.22	2.2.22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	11/02/2022	14/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.2	<0.1	<0.1	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.3	0.2	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.4	0.2	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.2	0.1	<0.1	<0.1	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.4	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.2	0.1	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	2.1	1.1	<0.05	<0.05	0.58
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	86	87	89	85	87

PAHs in Soil		
Our Reference		288141-14
Your Reference	UNITS	EPIC_NS_BH20_15.15.1
Depth		15-15.1
Date Sampled		2.2.22
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	14/02/2022
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	0.2
Phenanthrene	mg/kg	0.4
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	0.2
Benzo(b,j+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Total +ve PAH's	mg/kg	0.81
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	86

Organochlorine Pesticides in soil		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	11/02/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	77

Organophosphorus Pesticides in Soil		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	11/02/2022
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Surrogate TCMX	%	77

PCBs in Soil		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	11/02/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	77

Acid Extractable metals in soil						
Our Reference		288141-1	288141-2	288141-5	288141-8	288141-12
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0	EPIC_NS_BH20_0-0.01	EPIC_NS_BH20_3.0-3.1	EPIC_NS_BH20_6.0-6.1	EPIC_NS_BH20_10-10.1
Depth		0.9-1.0	0-0.1	3.0-3.1	6.0-6.1	10-10.1
Date Sampled		2.2.22	2.2.22	2.2.22	2.2.22	2.2.22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	16	4	6	4	5
Cadmium	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	11	6	5	7
Copper	mg/kg	43	19	25	47	44
Lead	mg/kg	32	19	16	22	20
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	7	1	9	21
Zinc	mg/kg	45	30	10	69	75

Acid Extractable metals in soil		
Our Reference		288141-14
Your Reference	UNITS	EPIC_NS_BH20_15.15.1
Depth		15-15.1
Date Sampled		2.2.22
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	8
Copper	mg/kg	49
Lead	mg/kg	21
Mercury	mg/kg	<0.1
Nickel	mg/kg	21
Zinc	mg/kg	70

Moisture						
Our Reference		288141-1	288141-2	288141-5	288141-8	288141-12
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0	EPIC_NS_BH20_0-0.01	EPIC_NS_BH20_3.0-3.1	EPIC_NS_BH20_6.0-6.1	EPIC_NS_BH20_10-10.1
Depth		0.9-1.0	0-0.1	3.0-3.1	6.0-6.1	10-10.1
Date Sampled		2.2.22	2.2.22	2.2.22	2.2.22	2.2.22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	12	21	11	11	6.5

Moisture		
Our Reference		288141-14
Your Reference	UNITS	EPIC_NS_BH20_15.15.1
Depth		15-15.1
Date Sampled		2.2.22
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	10/02/2022
Moisture	%	6.2

Misc Soil - Inorg		
Our Reference		288141-2
Your Reference	UNITS	EPIC_NS_BH20_0-0.01
Depth		0-0.1
Date Sampled		2.2.22
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Total Phenolics (as Phenol)	mg/kg	<5

Asbestos ID - soils		
Our Reference		288141-1
Your Reference	UNITS	EPIC_NS_BH06_0.9-1.0
Depth		0.9-1.0
Date Sampled		2.2.22
Type of sample		Soil
Date analysed	-	11/02/2022
Sample mass tested	g	Approx. 25g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

HM in water - total		
Our Reference		288141-16
Your Reference	UNITS	RB01
Depth		-
Date Sampled		2.2.22
Type of sample		Water
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Arsenic-Total	µg/L	<1
Cadmium-Total	µg/L	<0.1
Chromium-Total	µg/L	<1
Copper-Total	µg/L	<1
Lead-Total	µg/L	<1
Mercury-Total	µg/L	<0.05
Nickel-Total	µg/L	<1
Zinc-Total	µg/L	<1

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	125	116
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	131	126
2,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	106
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	111	104
1,1-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	116	110
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	109	109
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	112	113
1,2-dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	113	105
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	121	[NT]	[NT]	[NT]	[NT]	110	111
Surrogate aaa-Trifluorotoluene	%		Org-023	122	[NT]	[NT]	[NT]	[NT]	121	102
Surrogate Toluene-d_8	%		Org-023	97	[NT]	[NT]	[NT]	[NT]	103	102
Surrogate 4-Bromofluorobenzene	%		Org-023	106	[NT]	[NT]	[NT]	[NT]	105	107

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	113	110
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	113	110
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	124	115
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	123	118
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	104	103
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	108	107
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	112	113
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	122	[NT]	[NT]	[NT]	[NT]	121	102

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	10/02/2022	10/02/2022
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	95	82
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	82
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	111
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	95	82
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	83	82
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	111
Surrogate o-Terphenyl	%		Org-020	80	[NT]	[NT]	[NT]	[NT]	95	107

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			11/02/2022	[NT]	[NT]	[NT]	[NT]	11/02/2022	11/02/2022
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	96
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	90
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	101	98
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	94
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	64
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	101	64
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	69	#
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	106	103
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	89	[NT]	[NT]	[NT]	[NT]	90	105

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			11/02/2022	[NT]	[NT]	[NT]	[NT]	11/02/2022	11/02/2022
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	74
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	92
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	89
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	87
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	102
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	131	109
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	128	118
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	111	92
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	94
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	68
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	92	76

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			11/02/2022	[NT]	[NT]	[NT]	[NT]	11/02/2022	11/02/2022
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	99
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	91
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	81	77
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	65	65
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	98	90
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	93	80
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	97
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	92	76

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			11/02/2022	[NT]	[NT]	[NT]	[NT]	11/02/2022	11/02/2022
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	115	100
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	98	[NT]	[NT]	[NT]	[NT]	92	76

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	288141-2
Date prepared	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	09/02/2022
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	101	106
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	96	88
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	98
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	101	109
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	98	105
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	101	109
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	99	91
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	95

QUALITY CONTROL: Misc Soil - Inorg					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: HM in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			09/02/2022	16	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	16	09/02/2022	09/02/2022		09/02/2022	[NT]
Arsenic-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		99	[NT]
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	16	<0.1	[NT]		99	[NT]
Chromium-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		102	[NT]
Copper-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		101	[NT]
Lead-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		96	[NT]
Mercury-Total	µg/L	0.05	Metals-021	<0.05	16	<0.05	<0.05	0	95	[NT]
Nickel-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		100	[NT]
Zinc-Total	µg/L	1	Metals-022	<1	16	<1	[NT]		101	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos: Excessive sample volume was provided for asbestos analysis.
A portion of the supplied sample was sub-sampled according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample.
Envirolab recommends supplying 40-50g (50mL) of sample in its own container as per AS4964-2004.
Note: Sample 288141-1 was sub-sampled from a bag provided by the client.

PAH_S:# Percent recovery for the surrogate/matrix spike is not possible to report as the high concentration of analytes in sample/s 288141-2,2ms have caused interference.

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SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW-CTP-North Strathfield
Envirolab Reference	288141
Date Sample Received	07/02/2022
Date Instructions Received	07/02/2022
Date Results Expected to be Reported	14/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	15 Soil, 1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

BH20 - 1.0-1.1 - not received
Sample BH20 0.5-0.6 in COC labelled as BH20 0.6-0.7 in jar - assumed the same
Updated COC at 1538 - TS/TB not received, and project no. is SMW-CTP-North Strathfield

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	VOCs in soil	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Misc Soil - Inorg	Asbestos ID - soils	HM in water - total	On Hold
EPIC_NS_BH06_0.9-1.0-0.9-1.0		✓	✓	✓				✓		✓		
EPIC_NS_BH20_0-0.01-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓			
EPIC_NS_BH20_0.5-0.6-0.5-0.6												✓
EPIC_NS_BH20_2.0-2.1-2.0-2.1												✓
EPIC_NS_BH20_3.0-3.1-3.0-3.1		✓	✓	✓				✓				
EPIC_NS_BH20_4.0-4.1-4.0-4.1												✓
EPIC_NS_BH20_5.0-5.1-5.0-5.1												✓
EPIC_NS_BH20_6.0-6.1-6.0-6.1				✓				✓				
EPIC_NS_BH20_7.0-7.1-7.0-7.1												✓
EPIC_NS_BH20_8.0-8.1-8.0-8.1												✓
EPIC_NS_BH20_9.0-9.1-9.0-9.1												✓
EPIC_NS_BH20_10-10.1-10-10.1		✓	✓	✓				✓				
EPIC_NS_BH20_12-12.1-12-12.1												✓
EPIC_NS_BH20_15.15.1-15-15.1				✓				✓				
EPIC_NS_BH20_18-18.1-18-18.1												✓
RB01											✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

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Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Updated COC : 7/2/22
@ 1538

Chain of Custody Record

288141 7/2/22

Project No:	SC210090.01	Lab:	Envirolab
Project/Site:	SMW - CTP - North Strathfield	Lab Quote No:	
Sampled By:	Todd O'Brien	Lab Batch No:	
Phone / Email:	msingleton-fookes@epicenvironmental.com.au	Date Results Required:	Standard TAT
Results to:	msingleton-fookes@epicenvironmental.com.au		
Page 1 of 1		Sample Disposal After:	
Number of Eskies: 2			

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE: Glass Jar	Plastic Jar	vTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
1	EPIC_NS_BH06_0.9-1.0	0.9-1.0	2/02/2022	soil						x							
2	EPIC_NS_BH20_0-0.01	0-0.1	2/02/2022	soil					x			x	x	x	x		
3	EPIC_NS_BH20_0.5-0.6	0.5-0.6	2/02/2022	soil													x
4	EPIC_NS_BH20_2.0-2.1	2.0-2.1	2/02/2022	soil													x
5	EPIC_NS_BH20_3.0-3.1	3.0-3.1	2/02/2022	soil					x								
6	EPIC_NS_BH20_4.0-4.1	4.0-4.1	2/02/2022	soil													x
7	EPIC_NS_BH20_5.0-5.1	5.0-5.1	2/02/2022	soil													x
8	EPIC_NS_BH20_6.0-6.1	6.0-6.1	2/02/2022	soil							x						
9	EPIC_NS_BH20_7.0-7.1	7.0-7.1	2/02/2022	soil													x
10	EPIC_NS_BH20_8.0-8.1	8.0-8.1	2/02/2022	soil													x
11	EPIC_NS_BH20_9.0-9.1	9.0-9.1	2/02/2022	soil					x								
12	EPIC_NS_BH20_10-10.1	10-10.1	2/02/2022	soil													x
13	EPIC_NS_BH20_12-12.1	12-12.1	2/02/2022	soil							x						
14	EPIC_NS_BH20_15.15.1	15-15.1	2/02/2022	soil													x
15	EPIC_NS_BH20_18-18.1	18-18.1	2/02/2022	soil													
NR	EPIC_NS_TS02		2/02/2022	soil			x										
	EPIC_NS_TB02		2/02/2022	soil			x										
16	RB01		2/02/2022	water				x									
				TOTALS			2	1	3	1	2	1			1	0	9

Relinquished By:				Received By:			Custody Seals Intact: Y N
NAME	Todd O'Brien	SIGNATURE	TO DATE	NAME	SIGNATURE	DATE	Samples Received Chilled: Y N
							Method of Shipment

NOTES:

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane QLD 4000

web www.epicenvironmental.com.au
email labs@epicenvironmental.com.au

epic ENVIRONMENTAL

ENVIROLAB GROUP Envirolab Services

Chain of Custody Rec

Chatswood NSW 2067
Ph: (02) 9910 6200

Project No:	SC210090.01	Lab:	Envirolab
Project/Site:	AFJV North Strathfield	Lab Quote No:	
Sampled By:	Todd O'Brien	Lab Batch No:	
Phone / Email:	morgansingleton-fookes@epicenvironmental.com.au	Date Results Required:	5 days
Results to:	morgansingleton-fookes@epicenvironmental.com.au		
Page 1 of 1		Sample Disposal After:	
Number of Eskies: 2			

Job No: 288141

Date Received: 4-2-2021
Time Received: 1645
Received by: JSHAN
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE: Glass Jar	Plastic Jar							Hold
1	BH06-0.9-1.0	0.9-1.0	2.2.22	soil									1
2	BH20-0-0.01	0-0.1	2.2.22	soil									1
3	BH20-0.5-0.6	0.5-0.6	2.2.22	soil									1
NR	BH20-1.0-1.1	1.0-1.1	2.2.22	soil									1
4	BH20-2.0-2.1	2.0-2.1	2.2.22	soil									1
5	BH20-3.0-3.1	3.0-3.1	2.2.22	soil									1
6	BH20-4.0-4.1	4.0-4.1	2.2.22	soil									1
7	BH20-5.0-5.1	5.0-5.1	2.2.22	soil									1
8	BH20-6.0-6.1	6.0-6.1	2.2.22	soil									1
9	BH20-7.0-7.1	7.0-7.1	2.2.22	soil									1
10	BH20-8.0-8.1	8.0-8.1	2.2.22	soil									1
11	BH20-9.0-9.1	9.0-9.1	2.2.22	soil									1
12	BH20-10-10.1	10-10.1	2.2.22	soil									1
13	BH20-12-12.1	12-12.1	2.2.22	soil									1
14	BH20-15.15.1	15-15.1	2.2.22	soil									1
15	BH20-18-18.1	18-18.1	2.2.22	soil									1
16	RB01		2.2.22	water									1
				TOTALS									17

					0	0	0	0

					0	0	0	0

Relinquished By:

NAME Todd O'Brien SIGNATURE TO DATE

Received By:

NAME JSHAN SIGNATURE DATE 4-2-22 1645

Custody Seals Intact Y N
Samples Received Chilled Y N
Method of Shipment

NOTES:

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CERTIFICATE OF ANALYSIS 288141-A

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW-CTP-North Strathfield**
Number of Samples	additional analysis
Date samples received	07/02/2022
Date completed instructions received	16/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/02/2022
Date of Issue	21/02/2022

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Josh Williams, LC Supervisor
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Asbestos ID - soils		
Our Reference		288141-A-3
Your Reference	UNITS	EPIC_NS_BH20_0.5-0.6
Depth		0.5-0.6
Date Sampled		2.2.22
Type of sample		Soil
Date analysed	-	18/02/2022
Sample mass tested	g	Approx. 35g
Sample Description	-	Brown clayey soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

PFAS in Soils Extended		
Our Reference		288141-A-5
Your Reference	UNITS	EPIC_NS_BH20_3.0-3.1
Depth		3.0-3.1
Date Sampled		2.2.22
Type of sample		Soil
Date prepared	-	18/02/2022
Date analysed	-	18/02/2022
Perfluorobutanesulfonic acid	µg/kg	<5
Perfluoropentanesulfonic acid	µg/kg	<5
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<5
Perfluoroheptanesulfonic acid	µg/kg	<5
Perfluorooctanesulfonic acid PFOS	µg/kg	<5
Perfluorodecanesulfonic acid	µg/kg	<5
Perfluorobutanoic acid	µg/kg	<5
Perfluoropentanoic acid	µg/kg	<5
Perfluorohexanoic acid	µg/kg	<5
Perfluoroheptanoic acid	µg/kg	<5
Perfluorooctanoic acid PFOA	µg/kg	<5
Perfluorononanoic acid	µg/kg	<5
Perfluorodecanoic acid	µg/kg	<5
Perfluoroundecanoic acid	µg/kg	<5
Perfluorododecanoic acid	µg/kg	<5
Perfluorotridecanoic acid	µg/kg	<5
Perfluorotetradecanoic acid	µg/kg	<5
4:2 FTS	µg/kg	<5
6:2 FTS	µg/kg	<5
8:2 FTS	µg/kg	<5
10:2 FTS	µg/kg	<5
Perfluorooctane sulfonamide	µg/kg	<5
N-Methyl perfluorooctane sulfonamide	µg/kg	<5
N-Ethyl perfluorooctanesulfon amide	µg/kg	<5
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<5
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<5
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<5
Surrogate $^{13}C_8$ *PFOS*	%	100
Surrogate $^{13}C_2$ *PFOA*	%	100
Extracted ISTD $^{13}C_3$ *PFBS*	%	106
Extracted ISTD $^{18}O_2$ *PFHxS*	%	105

PFAS in Soils Extended		
Our Reference		288141-A-5
Your Reference	UNITS	EPIC_NS_BH20_3.0-3.1
Depth		3.0-3.1
Date Sampled		2.2.22
Type of sample		Soil
Extracted ISTD $^{13}C_4$ *PFOS*	%	104
Extracted ISTD $^{13}C_4$ *PFBA*	%	97
Extracted ISTD $^{13}C_3$ *PFPeA*	%	100
Extracted ISTD $^{13}C_2$ *PFHxA*	%	100
Extracted ISTD $^{13}C_4$ *PFHpA*	%	101
Extracted ISTD $^{13}C_4$ *PFOA*	%	103
Extracted ISTD $^{13}C_5$ *PFNA*	%	116
Extracted ISTD $^{13}C_2$ *PFDA*	%	103
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	102
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	115
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	135
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	109
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	117
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	118
Extracted ISTD $^{13}C_8$ *FOSA*	%	112
Extracted ISTD d_3 *N MeFOSA*	%	98
Extracted ISTD d_5 *N EtFOSA*	%	102
Extracted ISTD d_7 *N MeFOSE*	%	101
Extracted ISTD d_9 *N EtFOSE*	%	108
Extracted ISTD d_3 *N MeFOSAA*	%	90
Extracted ISTD d_5 *N EtFOSAA*	%	93
Total Positive PFHxS & PFOS	µg/kg	<5
Total Positive PFOS & PFOA	µg/kg	<5
Total Positive PFHxS & PFOS & PFOA	µg/kg	<5
Total Positive PFAS WA DER (n=10)	µg/kg	<5
Total Positive PFAS	µg/kg	<5

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	288141-A-5
Date prepared	-			18/02/2022	[NT]	[NT]	[NT]	[NT]	18/02/2022	18/02/2022
Date analysed	-			18/02/2022	[NT]	[NT]	[NT]	[NT]	18/02/2022	18/02/2022
Perfluorobutanesulfonic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	106	107
Perfluoropentanesulfonic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	104	100
Perfluorohexanesulfonic acid - PFHxS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	105	106
Perfluoroheptanesulfonic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	106	103
Perfluorooctanesulfonic acid PFOS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	104
Perfluorodecanesulfonic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	121	121
Perfluorobutanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	106
Perfluoropentanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	104	105
Perfluorohexanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	100	104
Perfluoroheptanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	104
Perfluorooctanoic acid PFOA	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	112
Perfluorononanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	97	91
Perfluorodecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	104	109
Perfluoroundecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	113	115
Perfluorododecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	101	106
Perfluorotridecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	115
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	107
4:2 FTS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	102	103
6:2 FTS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	110	117
8:2 FTS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	102	115
10:2 FTS	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	85	119
Perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	109	109
N-Methyl perfluorooctane sulfonamide	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	108	111
N-Ethyl perfluorooctanesulfon amide	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	104	102
N-Me perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	108	106
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	104
MePerfluorooctanesulf- amid oacetic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	100	99
EtPerfluorooctanesulf amid oacetic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	99
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	107	99
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	102	101

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	288141-A-5
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	113	[NT]	[NT]	[NT]	[NT]	110	109
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	109	108
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	106	106
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	107	95
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	109	101
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	111	99
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	111	101
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	107	102
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	119	[NT]	[NT]	[NT]	[NT]	115	118
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	104	101
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	117	[NT]	[NT]	[NT]	[NT]	94	95
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	133	[NT]	[NT]	[NT]	[NT]	98	100
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	133	[NT]	[NT]	[NT]	[NT]	100	117
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	118	[NT]	[NT]	[NT]	[NT]	108	105
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	127	[NT]	[NT]	[NT]	[NT]	105	109
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	126	[NT]	[NT]	[NT]	[NT]	104	106
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	108	103
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	104	98
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	104	103
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	102	101

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	288141-A-5
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	103	106
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	96	79
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	95	85

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW-CTP-North Strathfield
Envirolab Reference	288141-A
Date Sample Received	07/02/2022
Date Instructions Received	16/02/2022
Date Results Expected to be Reported	23/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Asbestos ID - soils	PFAS in Soils Extended	On Hold
EPIC_NS_BH06_0.9-1.0-0.9-1.0			✓
EPIC_NS_BH20_0-0.01-0-0.1			✓
EPIC_NS_BH20_0.5-0.6-0.5-0.6	✓		
EPIC_NS_BH20_2.0-2.1-2.0-2.1			✓
EPIC_NS_BH20_3.0-3.1-3.0-3.1		✓	
EPIC_NS_BH20_4.0-4.1-4.0-4.1			✓
EPIC_NS_BH20_5.0-5.1-5.0-5.1			✓
EPIC_NS_BH20_6.0-6.1-6.0-6.1			✓
EPIC_NS_BH20_7.0-7.1-7.0-7.1			✓
EPIC_NS_BH20_8.0-8.1-8.0-8.1			✓
EPIC_NS_BH20_9.0-9.1-9.0-9.1			✓
EPIC_NS_BH20_10-10.1-10-10.1			✓
EPIC_NS_BH20_12-12.1-12-12.1			✓
EPIC_NS_BH20_15.15.1-15-15.1			✓
EPIC_NS_BH20_18-18.1-18-18.1			✓
RB01			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 288141-A
TAT: Standard
Due: 23/02/2022
MT

288141-A

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Wednesday, 16 February 2022 3:33 PM
To: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Sample receipt team,

Could you also please schedule the additional analysis below (report number in brackets):

Standard TAT is okay.

Asbestos
BH12_0.5-0.6 (288341)
BH14_1.0-1.2 (288341)
BH16_2.0-2.1 (288341)
3 BH20_0.5-0.6 (288141)

TRH/BTEX
BH09_0.7-0.8 (287841)
BH12_0.5-0.6 (288341)
BH16_5.9-6.0 (288341)

VOCs
BH09_0.7-0.8 (287841)

PFAS → Could you please update the PFAS in soil LOR to 5 microgram/kg
BH04_0.9-1.0 (287841)
5 BH20_3.0-3.1 (288141)

Thank you,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

From: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Sent: Wednesday, 16 February 2022 2:37 PM

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288220

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Jayden Pan
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, N Strathfield Station DSI**
Number of Samples	5 Filter
Date samples received	07/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/02/2022
Date of Issue	14/02/2022
Reissue Details	This report replaces R00 created on 08/02/2022 due to: revised report with additional results.

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Approved Counter: Ridwan Wijaya
Analysed by Asbestos Count Approved Signatory: Lucy Zhu
Results Approved By
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Fibre Counting + Concentration					
Our Reference	288220-1	288220-2	288220-3	288220-4	288220-5
Your Reference	C01	C02	C04	unlabelled cowl	CY479771
Date Sampled	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022
Type of sample	Filter	Filter	Filter	Filter	Filter
Date analysed	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
Fibres	1.0	3.0	0.0	0.0	0.0
Fields	100	100	100	100	100
Effective Filter Area	384.47	384.47	384.47	384.47	384.47
Graticule Diameter	100	100	100	100	100
Volume Sampled	542	538	521	-	-
Total Sample Time	542	538	521	0	0
Fibre Concentration*	<0.01	<0.01	<0.01	-	-

Method ID	Methodology Summary
ASB-002	Estimation of Airborne Asbestos Fibres by the Membrane Filter Method. Filters examined in accordance with NOHSC:3003 (April 2005) Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres and Envirolab in-house method ASB-002. The microscope constant for Carl Zeiss Axio Lab.A1 (Sydney Laboratory) calculated using 25mm filter is 48952. The microscope constant for Olympus BX41 (Perth Laboratory) calculated using 25mm filter is 46981. These constants are to be used to calculate fibres/mL concentration for asbestos fibre air monitoring filters. If less than 10 fibres/100 graticule areas is observed, the figure of 10 fibres/100 graticule areas is the minimum that can be used to calculate airborne fibre concentration as per NOHSC: 3003(April 2005). Note - air volume measurements are not covered by Envirolab's NATA accreditation.
Disclaimer	Please note that sampling strategies are outside the control of the laboratory and are therefore not covered under NATA accreditation.

Report Comments

Volume Measurement data for fibre samples were supplied by "client". Envirolab Group does not take the resposibility for sample collection and hence the concentration data is not covered by the Envirolab Group's NATA Accreditation.

AIR QUALITY MONITORING SUMMARY SHEET – AIRBORNE ASBESTOS DUST

Client: AFJV				Project: N Strathfield DSI				Date: 4/2/22			
Location: N Strathfield station				Project No.: SC210090-01				Tested by: JP			
Date	**Sample No.**	**Cartridge No.**	**Pump Serial No.**	**Location**	**Start Time**	**Finish Time**	**Total Time**	**Flow On**	**Flow Off**	**Total Volume**	**Result (f/ml)**
4/2	1	C01	81557	~~BH~~ Ingleside	0800	1702		0.1 L/m	0.1 L/m		
4/2	2	C02	81670	BH19	0802	1700		0.1	0.1		
4/2	~~2~~ NR	C03	81564	BH06	0810	1656		0.1	0.1		
4/2	#3	C04	81590	BH08	0812	1653		0.1	0.1		
4/2	~~3~~ NR	Blank 1	—	—	—	—					
	4	Cow1	3 extras								
	5	C4479771									

Enviolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288220
7/2/22
1645

Date Received:
Time Received:
Received by:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Coa to Labs @ Epic environmental - coa.au

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288221

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Jayden Pan
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, N Strathfield Station DSI**
Number of Samples	5 Filter
Date samples received	07/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/02/2022
Date of Issue	14/02/2022
Reissue Details	This report replaces R00 created on 08/02/2022 due to: revised report with additional results.

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Asbestos Approved By
Analysed by Approved Counter: Ridwan Wijaya
Analysed by Asbestos Count Approved Signatory: Lucy Zhu
Results Approved By
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Fibre Counting + Concentration						
Our Reference		288221-1	288221-2	288221-3	288221-4	288221-5
Your Reference	UNITS	AAM01	AAM02	AAM03	AAM04	Blank
Date Sampled		03/02/2022	03/02/2022	03/02/2022	03/02/2022	03/02/2022
Type of sample		Filter	Filter	Filter	Filter	Filter
Date analysed	-	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
Fibres	-	0.0	0.0	0.0	3.0	0.0
Fields	-	100	100	100	100	100
Effective Filter Area	mm^2	384.47	384.47	384.47	384.47	384.47
Graticule Diameter	µm	100	100	100	100	100
Volume Sampled	Litres	400	400	396	397	-
Total Sample Time	Min	400	400	396	397	0
Fibre Concentration*	Fibres/mL	<0.01	<0.01	<0.01	<0.01	-

Method ID	Methodology Summary
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Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
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Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Volume Measurement data for fibre samples were supplied by "client". Envirolab Group does not take the resposibility for sample collection and hence the concentration data is not covered by the Envirolab Group's NATA Accreditation.

AIR QUALITY MONITORING SUMMARY SHEET – AIRBORNE ASBESTOS DUST

Client: AFJV				Project: Bayer N Stratfield DSI				Date: 3/2/21			
Location: N Stratfield Station				Project No.: S(2100q0.01				Tested by: JP			
Date	**Sample No.**	**Cartridge No.**	**Pump Serial No.**	**Location**	**Start Time**	**Finish Time**	**Total Time**	**Flow On**	**Flow Off**	**Total Volume**	**Result (f/ml)**
3/2	AAM01	C01	81564	Entry Gate	1010	1650		L/m	L/m		
	AAM02	C02	81670	BH19	1012	1652			L/m		
	AAM03	C03	81590	BH07	1020	1656			L/m		
	AAM04	C04	81557	BH09	1022	1659			L/m		
	Blank	Blank	—	—	—	—	—	—	—	—	

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288221

Date Received: 7/2/22
Time Received: 1645
Received by:
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

CoA to Labs@Epicenvironmental.com.au

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288232

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	6 Water
Date samples received	03/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	14/02/2022
Date of Issue	14/02/2022

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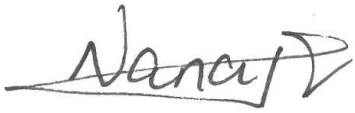
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in water				
Our Reference		288232-1	288232-2	288232-3
Your Reference	UNITS	Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022
Dichlorodifluoromethane	µg/L	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1
Chloroform	µg/L	<1	<1	<1
2,2-dichloropropane	µg/L	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Benzene	µg/L	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	<1
trans-1,3-dichloropropene	µg/L	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1

VOCs in water				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Bromoform	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
Styrene	µg/L	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1
o-xylene	µg/L	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	<1
4-isopropyl toluene	µg/L	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	96	93	94
Surrogate toluene-d8	%	97	96	96
Surrogate 4-BFB	%	99	99	101

vTRH(C6-C10)/BTEXN in Water						
Our Reference		288232-1	288232-2	288232-3	288232-4	288232-5
Your Reference	UNITS	Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03	Epic_NS_TB01W	Epic_NS_TS01W
Date Sampled		02/02/2022	02/02/2022	02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	µg/L	<10	<10	<10	<10	[NA]
TRH C_6 - C_{10}	µg/L	<10	<10	<10	<10	[NA]
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	<10	<10	<10	[NA]
Benzene	µg/L	<1	<1	<1	<1	97%
Toluene	µg/L	<1	<1	<1	<1	99%
Ethylbenzene	µg/L	<1	<1	<1	<1	115%
m+p-xylene	µg/L	<2	<2	<2	<2	120%
o-xylene	µg/L	<1	<1	<1	<1	110%
Naphthalene	µg/L	<1	<1	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	96	93	94	93	95
Surrogate toluene-d8	%	97	96	96	95	96
Surrogate 4-BFB	%	99	99	101	100	99

svTRH (C10-C40) in Water				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	08/02/2022	08/02/2022	08/02/2022
TRH C_{10} - C_{14}	µg/L	<50	<50	<50
TRH C_{15} - C_{28}	µg/L	<100	<100	<100
TRH C_{29} - C_{36}	µg/L	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50
TRH >C_{10} - C_{16}	µg/L	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	<50	<50
TRH >C_{16} - C_{34}	µg/L	<100	<100	<100
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50
Surrogate o-Terphenyl	%	77	82	81

PAHs in Water				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	08/02/2022	08/02/2022	08/02/2022
Naphthalene	µg/L	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1
Fluorene	µg/L	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1
Anthracene	µg/L	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1
Pyrene	µg/L	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1
Chrysene	µg/L	<1	<1	<1
Benzo(b,j+k)fluoranthene	µg/L	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	117	125	125

Organochlorine Pesticides in Water				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	08/02/2022	08/02/2022	08/02/2022
alpha-BHC	µg/L	<0.2	<0.2	<0.2
HCB	µg/L	<0.2	<0.2	<0.2
beta-BHC	µg/L	<0.2	<0.2	<0.2
gamma-BHC	µg/L	<0.2	<0.2	<0.2
Heptachlor	µg/L	<0.2	<0.2	<0.2
delta-BHC	µg/L	<0.2	<0.2	<0.2
Aldrin	µg/L	<0.2	<0.2	<0.2
Heptachlor Epoxide	µg/L	<0.2	<0.2	<0.2
gamma-Chlordane	µg/L	<0.2	<0.2	<0.2
alpha-Chlordane	µg/L	<0.2	<0.2	<0.2
Endosulfan I	µg/L	<0.2	<0.2	<0.2
pp-DDE	µg/L	<0.2	<0.2	<0.2
Dieldrin	µg/L	<0.2	<0.2	<0.2
Endrin	µg/L	<0.2	<0.2	<0.2
Endosulfan II	µg/L	<0.2	<0.2	<0.2
pp-DDD	µg/L	<0.2	<0.2	<0.2
Endrin Aldehyde	µg/L	<0.2	<0.2	<0.2
pp-DDT	µg/L	<0.2	<0.2	<0.2
Endosulfan Sulphate	µg/L	<0.2	<0.2	<0.2
Methoxychlor	µg/L	<0.2	<0.2	<0.2
Surrogate TCMX	%	112	117	123

OP Pesticides in Water				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date extracted	-	08/02/2022	08/02/2022	08/02/2022
Date analysed	-	08/02/2022	08/02/2022	08/02/2022
Dichlorvos	µg/L	<0.2	<0.2	<0.2
Dimethoate	µg/L	<0.2	<0.2	<0.2
Diazinon	µg/L	<0.2	<0.2	<0.2
Chlorpyriphos-methyl	µg/L	<0.2	<0.2	<0.2
Ronnel	µg/L	<0.2	<0.2	<0.2
Fenitrothion	µg/L	<0.2	<0.2	<0.2
Malathion	µg/L	<0.2	<0.2	<0.2
Chlorpyriphos	µg/L	<0.2	<0.2	<0.2
Parathion	µg/L	<0.2	<0.2	<0.2
Bromophos ethyl	µg/L	<0.2	<0.2	<0.2
Ethion	µg/L	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	µg/L	<0.2	<0.2	<0.2
Surrogate TCMX	%	112	117	123

HM in water - dissolved					
Our Reference		288232-1	288232-2	288232-3	288232-6
Your Reference	UNITS	Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03	Epic_NS_RBO1 W
Date Sampled		02/02/2022	02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water	Water
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic-Dissolved	µg/L	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	0.1	1.0	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1
Copper-Dissolved	µg/L	2	3	3	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	8	32	180	<1
Zinc-Dissolved	µg/L	25	46	270	6

Miscellaneous Inorganics				
Our Reference	UNITS	288232-1	288232-2	288232-3
Your Reference		Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date prepared	-	07/02/2022	07/02/2022	07/02/2022
Date analysed	-	07/02/2022	07/02/2022	07/02/2022
pH	pH Units	6.6	6.2	5.5
Electrical Conductivity	µS/cm	1,100	5,400	7,800
Fluoride, F	mg/L	0.4	0.9	0.6
Formaldehyde in waters	mg/L	<0.1	<0.1	3.0

Ion Balance				
Our Reference		288232-1	288232-2	288232-3
Your Reference	UNITS	Epic_NS_MW01	Epic_NS_MW02	Epic_NS_MW03
Date Sampled		02/02/2022	02/02/2022	02/02/2022
Type of sample		Water	Water	Water
Date prepared	-	07/02/2022	07/02/2022	07/02/2022
Date analysed	-	07/02/2022	07/02/2022	07/02/2022
Calcium - Dissolved	mg/L	58	24	21
Potassium - Dissolved	mg/L	5	15	17
Sodium - Dissolved	mg/L	100	1,100	1,300
Magnesium - Dissolved	mg/L	17	82	140
Hardness	mgCaCO 3 /L	210	400	630
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	290	270	50
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	290	270	50
Sulphate, SO4	mg/L	69	380	930
Chloride, Cl	mg/L	160	1,500	2,100
Ionic Balance	%	-14	0	-9.0

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Inorg-113	Formaldehyde in waters and solids (1:5 extract) using colourimetric analysis and/or LC-DAD.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			08/02/2022	2	08/02/2022	09/02/2022		08/02/2022	[NT]
Date analysed	-			09/02/2022	2	09/02/2022	09/02/2022		09/02/2022	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	2	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	108	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	2	<1	<1	0	118	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	109	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	105	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Dibromomethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	2	<1	<1	0	113	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	2	<1	<1	0	100	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	2	<1	<1	0	96	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	2	<1	<1	0	114	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Bromoform	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	2	<2	<2	0	[NT]	[NT]
Styrene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
o-xylene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	2	93	96	3	98	[NT]
Surrogate toluene-d8	%		Org-023	96	2	96	98	2	99	[NT]
Surrogate 4-BFB	%		Org-023	97	2	99	104	5	98	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			08/02/2022	2	08/02/2022	09/02/2022		08/02/2022	[NT]
Date analysed	-			09/02/2022	2	09/02/2022	09/02/2022		09/02/2022	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	2	<10	<10	0	119	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	2	<10	<10	0	119	[NT]
Benzene	µg/L	1	Org-023	<1	2	<1	<1	0	113	[NT]
Toluene	µg/L	1	Org-023	<1	2	<1	<1	0	114	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	2	<1	<1	0	121	[NT]
m+p-xylene	µg/L	2	Org-023	<2	2	<2	<2	0	123	[NT]
o-xylene	µg/L	1	Org-023	<1	2	<1	<1	0	119	[NT]
Naphthalene	µg/L	1	Org-023	<1	2	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	2	93	96	3	98	[NT]
Surrogate toluene-d8	%		Org-023	96	2	96	94	2	99	[NT]
Surrogate 4-BFB	%		Org-023	97	2	99	104	5	98	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	[NT]
Date analysed	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	2	<50	<50	0	100	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	2	<100	<100	0	96	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	2	<100	<100	0	94	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	2	<50	<50	0	100	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	2	<100	<100	0	96	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	2	<100	<100	0	94	[NT]
Surrogate o-Terphenyl	%		Org-020	84	2	82	83	1	104	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	288232-3
Date extracted	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
Date analysed	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
Naphthalene	µg/L	1	Org-022/025	<1	2	<1	<1	0	84	97
Acenaphthylene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Acenaphthene	µg/L	1	Org-022/025	<1	2	<1	<1	0	93	107
Fluorene	µg/L	1	Org-022/025	<1	2	<1	<1	0	97	111
Phenanthrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	98	102
Anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Fluoranthene	µg/L	1	Org-022/025	<1	2	<1	<1	0	96	102
Pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	99	103
Benzo(a)anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Chrysene	µg/L	1	Org-022/025	<1	2	<1	<1	0	69	71
Benzo(b,j+k)fluoranthene	µg/L	2	Org-022/025	<2	2	<2	<2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	104	106
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-022/025	<1	2	<1	<1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	127	2	125	108	15	114	113

QUALITY CONTROL: Organochlorine Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	288232-3
Date extracted	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
Date analysed	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
alpha-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	94	104
HCB	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	103	114
gamma-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Heptachlor	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	91	93
delta-BHC	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Aldrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	103	105
Heptachlor Epoxide	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	108	110
gamma-Chlordane	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	96	102
Dieldrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	108	106
Endrin	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	96	94
Endosulfan II	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDD	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	86	90
Endrin Aldehyde	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	110	114
Methoxychlor	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	108	2	117	104	12	107	117

QUALITY CONTROL: OP Pesticides in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	288232-3
Date extracted	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
Date analysed	-			08/02/2022	2	08/02/2022	08/02/2022		08/02/2022	08/02/2022
Dichlorvos	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	91	103
Dimethoate	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Diazinon	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Ronnel	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	106	112
Fenitrothion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	89	89
Malathion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	116	114
Chlorpyriphos	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	104	108
Parathion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	91	89
Bromophos ethyl	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Ethion	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	92	96
Azinphos-methyl (Guthion)	µg/L	0.2	Org-022/025	<0.2	2	<0.2	<0.2	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	108	2	117	104	12	107	117

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	288232-2
Date prepared	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Date analysed	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	95	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	98	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	96	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	2	2	0	96	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	94	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	104	103
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	8	8	0	95	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	25	22	13	95	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			07/02/2022	[NT]	[NT]	[NT]	[NT]	07/02/2022	[NT]
Date analysed	-			07/02/2022	[NT]	[NT]	[NT]	[NT]	07/02/2022	[NT]
pH	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Formaldehyde in waters	mg/L	0.1	Inorg-113	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			07/02/2022	[NT]	[NT]	[NT]	[NT]	07/02/2022	[NT]
Date analysed	-			07/02/2022	[NT]	[NT]	[NT]	[NT]	07/02/2022	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	90	[NT]
Hardness	mgCaCO 3 /L	3		<3	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

MISC INORG/Anions
Samples were out of the recommended holding time for this analysis.
Samples received in good order: Holding time exceedance

Ion Balance - # Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

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www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW - CTP - North Strathfield
Envirolab Reference	288232
Date Sample Received	03/02/2022
Date Instructions Received	07/02/2022
Date Results Expected to be Reported	14/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Holding time exceedance
No. of Samples Provided	5 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Sample #3 - 1 x vial & 125 ml HNO3 - bottles received labelled as MW01 instead of MW03, but came in a bag with MW03 - assumed correct
PFAS bottles received empty

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoice accordingly.

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHsin Water	Organochlorine Pesticides in soil	OP Pesticides in Water	HM in water - dissolved	pH	Electrical Conductivity	Fluoride, F	Formaldehyde in waters	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	Ionic Balance
Epic_NS_MW01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Epic_NS_MW02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Epic_NS_MW03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Epic_NS_TB01W		✓																					
Epic_NS_TS01W		✓																					

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

epic ENVIRONMENTAL

Chain of Custody Record

Project No:	SC210090.01
Project/Site:	SMW - CTP - North Strathfield
Project Manager:	Morgan Singleton-Fookes (msingleton-fookes@epicenviron
Sampled By:	Jayden Pan (jpan@epicenvironmental.com.au
Phone:	0417 217 179
Page:	1 of 1
Number of Eskies:	1

Lab:	Envirolab
Lab Quote No:	
Lab Batch No:	
Turnaround time:	Standard
Sample Disposal After:	

	LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE: Soil / Solid 150-250ml Glass Jar	Soil / Solid 200ml Plastic Jar	Soil / Solid - Plastic bag	Water / Liquid 2x 40ml Amber Vial	Water / Liquid 100-500ml Amber Bottle	Water / Liquid 60ml Metals	Water / Liquid 60ml Nutrients	Water / Liquid 250-500ml Plastic (Unpreserved)	Water / Liquid 60-250ml Plastic (PFAS)	Other	ANALYSIS REQUIRED: vTRH, BTEX	Metals	TRH, BTEXN, Metals, PAH	OCP, OPP	VOC	Formaldehyde	Ca, Mg, Na, K, pH, EC, Cl, SO4, alkalinity, fluoride, hardness,			HOLD
1	✓	Epic_NS_MW01 1	2/02/2022	W													x	x	x	x	x			
2	✓	Epic_NS_MW02 2	2/02/2022	W													x	x	x	x	x			
3	✓	Epic_NS_MW03 3	2/02/2022	W													x	x	x	x	x			
4	Please send to Eurofins ✓	Epic_NS_WQC01 —	2/02/2022	W													x							
5	✓	Epic_NS_TB01W 4	2/02/2022	W											x									
6	✓	Epic_NS_TS01W 5	2/02/2022	W											x									
7	NR X	Epic_NS_RB01W	2/02/2022	W												x								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
			TOTALS												2	1	4	3	3	3	3			

Relinquished By:

NAME SIGNATURE DATE

Received By: Rey 7/2/2022 1515

NAME SIGNATURE DATE

Environment Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288232
Date Received: 3/2/2022
Time Received: 1515
Received by:
Temp: Cool/Ambient 11°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

Custody Seals Intact	Y	N
Samples Received Chilled	Y	N
Method of Shipment		

NOTES:

Email msingleton-fookes@epicenvironmental.com.a

cc

cc epicenvironmental@esdat.com.au
cc labs@epicenvironmental.com.au

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane, 4000/ Suite 4.01, 55 Miller Street, Pyrmont, NSW, 2009

COC rec'd 7/2/2022 1540

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288232-A

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	additional analysis
Date samples received	03/02/2022
Date completed instructions received	24/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	25/02/2022
Date of Issue	25/02/2022

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Josh Williams, LC Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

PFAS in Waters Extended		
Our Reference		288232-A-2
Your Reference	UNITS	Epic_NS_MW02
Date Sampled		02/02/2022
Type of sample		Water
Date prepared	-	25/02/2022
Date analysed	-	25/02/2022
Perfluorobutanesulfonic acid	µg/L	<0.01
Perfluoropentanesulfonic acid	µg/L	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01
Perfluoroheptanesulfonic acid	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	<0.02
Perfluoropentanoic acid	µg/L	<0.02
Perfluorohexanoic acid	µg/L	<0.01
Perfluoroheptanoic acid	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	99
Surrogate $^{13}C_2$ *PFOA*	%	103
Extracted ISTD $^{13}C_3$ *PFBS*	%	95
Extracted ISTD $^{18}O_2$ *PFHxS*	%	105
Extracted ISTD $^{13}C_4$ *PFOS*	%	101
Extracted ISTD $^{13}C_4$ *PFBA*	%	98

PFAS in Waters Extended		
Our Reference		288232-A-2
Your Reference	UNITS	Epic_NS_MW02
Date Sampled		02/02/2022
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	102
Extracted ISTD $^{13}C_2$ *PFHxA*	%	98
Extracted ISTD $^{13}C_4$ *PFHpA*	%	119
Extracted ISTD $^{13}C_4$ *PFOA*	%	102
Extracted ISTD $^{13}C_5$ *PFNA*	%	115
Extracted ISTD $^{13}C_2$ *PFDA*	%	117
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	106
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	109
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	102
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	103
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	104
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	135
Extracted ISTD $^{13}C_8$ *FOSA*	%	146
Extracted ISTD d_3 *N MeFOSA*	%	109
Extracted ISTD d_5 *N EtFOSA*	%	113
Extracted ISTD d_7 *N MeFOSE*	%	106
Extracted ISTD d_9 *N EtFOSE*	%	103
Extracted ISTD d_3 *N MeFOSAA*	%	100
Extracted ISTD d_5 *N EtFOSAA*	%	103
Total Positive PFHxS & PFOS	µg/L	<0.01
Total Positive PFOA & PFOS	µg/L	<0.01
Total Positive PFAS	µg/L	<0.01

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			25/02/2022	[NT]	[NT]	[NT]	[NT]	25/02/2022	[NT]
Date analysed	-			25/02/2022	[NT]	[NT]	[NT]	[NT]	25/02/2022	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	90	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	90	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	84	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	90	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	86	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	86	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	100	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	90	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	82	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	98	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	108	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	100	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	118	[NT]	[NT]	[NT]	[NT]	117	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	109	[NT]	[NT]	[NT]	[NT]	109	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	127	[NT]	[NT]	[NT]	[NT]	126	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	117	[NT]	[NT]	[NT]	[NT]	121	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	129	[NT]	[NT]	[NT]	[NT]	126	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	123	[NT]	[NT]	[NT]	[NT]	118	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	116	[NT]	[NT]	[NT]	[NT]	117	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	118	[NT]	[NT]	[NT]	[NT]	128	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	113	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	132	[NT]	[NT]	[NT]	[NT]	121	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	117	[NT]	[NT]	[NT]	[NT]	120	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	122	[NT]	[NT]	[NT]	[NT]	123	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	120	[NT]	[NT]	[NT]	[NT]	117	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	119	[NT]	[NT]	[NT]	[NT]	124	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW - CTP - North Strathfield
Envirolab Reference	288232-A
Date Sample Received	03/02/2022
Date Instructions Received	24/02/2022
Date Results Expected to be Reported	25/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	1 day
Temperature on Receipt (°C)	11
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Waters Extended	On Hold
Epic_NS_MW01		✓
Epic_NS_MW02	✓	
Epic_NS_MW03		✓
Epic_NS_TB01W		✓
Epic_NS_TS01W		✓
Epic_NS_RBO1W		✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: PFAS analysis - Report 288232

Ref: 288232-A
TAT: 1 day
Due: 25/02/2022
MT

288232-A

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Thursday, 24 February 2022 11:46 AM
To: Simon Song <SSong@envirolab.com.au>
Cc: Jayden Pan <jpan@epicenvironmental.com.au>
Subject: PFAS analysis - Report 288232

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Simon,

As per your conversation with Jayden, could you please analyse sample MW02 (2) (from report 288232) for PFAS on a 24 hr TAT?

Many thanks,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

Phone: 1800 779 363
Mobile: 0417 217 179
Email: msingleton-fookes@epicenvironmental.com.au
Suite 5, Level 9, 189 Kent Street, Sydney, NSW, 2000

Epic Environmental acknowledges the Australian Aboriginal and Torres Strait Islander peoples as the first inhabitants of the nation and the traditional custodians of the lands where we live, learn and work.

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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CERTIFICATE OF ANALYSIS 288341

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Jayden Pan, Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	49 Soil, 3 Water
Date samples received	07/02/2022
Date completed instructions received	07/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/02/2022
Date of Issue	16/02/2022
Reissue Details	This report replaces R00 created on 15/02/2022 due to: revised report with changed PFAS Soil LOR.

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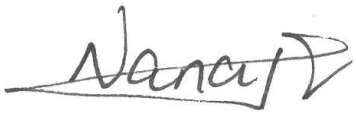
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst: Ridwan Wijaya
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Hannah Nguyen, Metals Supervisor
Jeremy Faircloth, Operations Manager, Sydney
Josh Williams, LC Supervisor
Lucy Zhu, Asbestos Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

VOCs in soil						
Our Reference		288341-1	288341-6	288341-11	288341-21	288341-34
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH18_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil						
Our Reference		288341-1	288341-6	288341-11	288341-21	288341-34
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH18_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	104	103	104	104	102
Surrogate aaa-Trifluorotoluene	%	75	86	81	77	87
Surrogate Toluene-d_8	%	98	100	99	99	98
Surrogate 4-Bromofluorobenzene	%	95	96	94	95	97

VOCs in soil		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1

VOCs in soil		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	103
Surrogate aaa-Trifluorotoluene	%	82
Surrogate Toluene-d_8	%	100
Surrogate 4-Bromofluorobenzene	%	96

PFAS in Soils Extended					
Our Reference		288341-14	288341-19	288341-24	288341-32
Your Reference	UNITS	EPIC_NS_BH14_4.0-4.1	EPIC_NS_BH15_2.9-3.0	EPIC_NS_BH16_2.0-2.1	EPIC_NS_BH17_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	3/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Perfluorobutanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluoropentanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorohexanesulfonic acid - PFHxS	µg/kg	<5	<5	<5	<5
Perfluoroheptanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorooctanesulfonic acid PFOS	µg/kg	11	<5	<5	<5
Perfluorodecanesulfonic acid	µg/kg	<5	<5	<5	<5
Perfluorobutanoic acid	µg/kg	<5	<5	<5	<5
Perfluoropentanoic acid	µg/kg	<5	<5	<5	<5
Perfluorohexanoic acid	µg/kg	<5	<5	<5	<5
Perfluoroheptanoic acid	µg/kg	<5	<5	<5	<5
Perfluorooctanoic acid PFOA	µg/kg	<5	<5	<5	<5
Perfluorononanoic acid	µg/kg	<5	<5	<5	<5
Perfluorodecanoic acid	µg/kg	<5	<5	<5	<5
Perfluoroundecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorododecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorotridecanoic acid	µg/kg	<5	<5	<5	<5
Perfluorotetradecanoic acid	µg/kg	<5	<5	<5	<5
4:2 FTS	µg/kg	<5	<5	<5	<5
6:2 FTS	µg/kg	<5	<5	<5	<5
8:2 FTS	µg/kg	<5	<5	<5	<5
10:2 FTS	µg/kg	<5	<5	<5	<5
Perfluorooctane sulfonamide	µg/kg	<5	<5	<5	<5
N-Methyl perfluorooctane sulfonamide	µg/kg	<5	<5	<5	<5
N-Ethyl perfluorooctanesulfon amide	µg/kg	<5	<5	<5	<5
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<5	<5	<5	<5
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<5	<5	<5	<5
Surrogate $^{13}C_8$ *PFOS*	%	100	99	97	100
Surrogate $^{13}C_2$ *PFOA*	%	101	99	99	99
Extracted ISTD $^{13}C_3$ *PFBS*	%	126	119	123	126
Extracted ISTD $^{18}O_2$ *PFHxS*	%	120	110	112	117
Extracted ISTD $^{13}C_4$ *PFOS*	%	124	113	117	126

PFAS in Soils Extended					
Our Reference		288341-14	288341-19	288341-24	288341-32
Your Reference	UNITS	EPIC_NS_BH14_4.0-4.1	EPIC_NS_BH15_2.9-3.0	EPIC_NS_BH16_2.0-2.1	EPIC_NS_BH17_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	3/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	117	110	113	116
Extracted ISTD $^{13}C_3$ *PFPeA*	%	131	121	122	130
Extracted ISTD $^{13}C_2$ *PFHxA*	%	123	116	119	123
Extracted ISTD $^{13}C_4$ *PFHpA*	%	102	95	96	99
Extracted ISTD $^{13}C_4$ *PFOA*	%	125	111	121	125
Extracted ISTD $^{13}C_5$ *PFNA*	%	119	115	115	119
Extracted ISTD $^{13}C_2$ *PFDA*	%	135	115	125	122
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	148	123	143	125
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	151	126	144	135
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	102	93	94	101
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	135	126	134	128
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	140	129	145	139
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	192	168	184	140
Extracted ISTD $^{13}C_8$ *FOSA*	%	145	134	143	138
Extracted ISTD d_3 *N MeFOSA*	%	106	94	103	108
Extracted ISTD d_5 *N EtFOSA*	%	119	109	115	116
Extracted ISTD d_7 *N MeFOSE*	%	138	132	142	144
Extracted ISTD d_9 *N EtFOSE*	%	116	109	113	129
Extracted ISTD d_3 *N MeFOSAA*	%	130	116	131	113
Extracted ISTD d_5 *N EtFOSAA*	%	145	129	147	120
Total Positive PFHxS & PFOS	µg/kg	11	<0.1	<0.1	<0.1
Total Positive PFOS & PFOA	µg/kg	11	<0.1	<0.1	<0.1
Total Positive PFAS	µg/kg	11	<0.1	<0.1	<0.1

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		288341-3	288341-6	288341-11	288341-17	288341-21
Your Reference	UNITS	EPIC_NS_BH08_0.8-1.0	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH15_0-0.1	EPIC_NS_BH16_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	78	86	81	79	77

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		288341-26	288341-30	288341-34	288341-41	288341-45
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1	EPIC_NS_BH17_0-0.1	EPIC_NS_BH18_0.5-0.6	EPIC_NS_BH19_0-0.1	EPIC_NS_QC03
Date Sampled		3/02/2022	4/02/2022	3/02/2022	3/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	76	74	87	82	93

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		288341-46	288341-47	288341-49
Your Reference	UNITS	EPIC_NS_QC05	EPIC_NS_TB03	EPIC_NS_TS03
Date Sampled		4/02/2022	3/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022
TRH C_6 - C_9	mg/kg	<25	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	[NA]
Benzene	mg/kg	<0.2	<0.2	120%
Toluene	mg/kg	<0.5	<0.5	119%
Ethylbenzene	mg/kg	<1	<1	119%
m+p-xylene	mg/kg	<2	<2	119%
o-Xylene	mg/kg	<1	<1	120%
Naphthalene	mg/kg	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<3	<3	[NA]
Surrogate aaa-Trifluorotoluene	%	91	82	87

svTRH (C10-C40) in Soil						
Our Reference		288341-3	288341-6	288341-11	288341-17	288341-21
Your Reference	UNITS	EPIC_NS_BH08_0.8-1.0	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH15_0-0.1	EPIC_NS_BH16_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	90	86	88	85	87

svTRH (C10-C40) in Soil						
Our Reference		288341-26	288341-30	288341-34	288341-41	288341-45
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1	EPIC_NS_BH17_0-0.1	EPIC_NS_BH18_0.5-0.6	EPIC_NS_BH19_0-0.1	EPIC_NS_QC03
Date Sampled		3/02/2022	4/02/2022	3/02/2022	3/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	100	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	150	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	150	<50	<50	<50	<50
Surrogate o-Terphenyl	%	92	87	84	86	87

svTRH (C10-C40) in Soil		
Our Reference		288341-46
Your Reference	UNITS	EPIC_NS_QC05
Date Sampled		4/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	11/02/2022
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	87

PAHs in Soil						
Our Reference		288341-1	288341-3	288341-4	288341-5	288341-6
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH08_0.8-1.0	EPIC_NS_BH12_0.1-0.2	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH13_0-0.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	14/02/2022	14/02/2022	09/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1	0.4	0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	0.5	0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.3	<0.1
Chrysene	mg/kg	0.2	<0.1	<0.1	0.4	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.5	<0.2
Benzo(a)pyrene	mg/kg	0.1	<0.05	<0.05	0.4	0.09
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1	<0.1	0.4	<0.1
Total +ve PAH's	mg/kg	0.89	<0.05	<0.05	3.4	0.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	0.6	<0.5
Surrogate p-Terphenyl-d14	%	121	111	98	131	101

PAHs in Soil						
Our Reference		288341-8	288341-9	288341-11	288341-14	288341-16
Your Reference	UNITS	EPIC_NS_BH13_0.9-1.0	EPIC_NS_BH14_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH14_4.0-4.1	EPIC_NS_BH14_6.0-6.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	09/02/2022	14/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	0.2	0.9
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Fluoranthene	mg/kg	0.3	0.2	0.2	0.2	0.6
Pyrene	mg/kg	0.3	0.2	0.2	0.2	0.6
Benzo(a)anthracene	mg/kg	0.2	0.1	<0.1	0.1	0.2
Chrysene	mg/kg	0.2	0.2	<0.1	0.1	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.4	0.2	<0.2	0.2	0.3
Benzo(a)pyrene	mg/kg	0.2	0.2	0.1	0.1	0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.2	0.2	<0.1	0.1	0.1
Total +ve PAH's	mg/kg	2.1	1.4	0.4	1.3	3.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	103	124	108	103	104

PAHs in Soil						
Our Reference		288341-17	288341-18	288341-19	288341-21	288341-24
Your Reference	UNITS	EPIC_NS_BH15_0-0.1	EPIC_NS_BH15_1.4-1.5	EPIC_NS_BH15_2.9-3.0	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH16_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	14/02/2022	14/02/2022	09/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.3	<0.1	1.0
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Fluoranthene	mg/kg	<0.1	<0.1	0.5	<0.1	1.6
Pyrene	mg/kg	<0.1	<0.1	0.6	<0.1	1.6
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	0.9
Chrysene	mg/kg	<0.1	<0.1	0.4	<0.1	1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.7	<0.2	1
Benzo(a)pyrene	mg/kg	<0.05	0.08	0.4	<0.05	0.85
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.3	<0.1	0.5
Total +ve PAH's	mg/kg	<0.05	0.08	3.7	<0.05	9.6
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.5	<0.5	1.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	1.2
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.6	<0.5	1.2
Surrogate p-Terphenyl-d14	%	121	101	101	135	98

PAHs in Soil						
Our Reference		288341-26	288341-29	288341-30	288341-32	288341-34
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1	EPIC_NS_BH16_5.9-6.0	EPIC_NS_BH17_0-0.1	EPIC_NS_BH17_2.0-2.1	EPIC_NS_BH18_0.5-0.6
Date Sampled		3/02/2022	3/02/2022	4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	14/02/2022	09/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	0.8	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.4	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	5.7	1	<0.1	0.1	<0.1
Anthracene	mg/kg	1.3	0.2	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	4.9	0.7	<0.1	0.2	<0.1
Pyrene	mg/kg	4.6	0.7	0.1	0.2	<0.1
Benzo(a)anthracene	mg/kg	2.0	0.3	<0.1	<0.1	<0.1
Chrysene	mg/kg	1.9	0.4	<0.1	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	2.4	0.4	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	1.7	0.2	0.06	0.09	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.7	0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.9	0.2	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	28	4.2	0.2	0.61	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	2.4	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	2.4	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	2.4	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	103	101	124	99	101

PAHs in Soil						
Our Reference		288341-37	288341-39	288341-41	288341-45	288341-46
Your Reference	UNITS	EPIC_NS_BH18_3.0-3.1	EPIC_NS_BH18_5.0-5.1	EPIC_NS_BH19_0-0.1	EPIC_NS_QC03	EPIC_NS_QC05
Date Sampled		3/02/2022	3/02/2022	3/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	14/02/2022	14/02/2022	09/02/2022	14/02/2022	14/02/2022
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	0.4	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	0.5	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	0.4	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.6	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.07	<0.05	0.4	<0.05	0.07
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Total +ve PAH's	mg/kg	0.61	<0.05	3.2	<0.05	0.07
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	0.6	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	99	99	128	104	102

Organochlorine Pesticides in soil						
Our Reference		288341-1	288341-5	288341-9	288341-17	288341-30
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH14_0-0.1	EPIC_NS_BH15_0-0.1	EPIC_NS_BH17_0-0.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	111	106	103	104

Organochlorine Pesticides in soil		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	110

Organophosphorus Pesticides in Soil						
Our Reference		288341-1	288341-5	288341-9	288341-17	288341-30
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH14_0-0.1	EPIC_NS_BH15_0-0.1	EPIC_NS_BH17_0-0.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	111	106	103	104

Organophosphorus Pesticides in Soil		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Surrogate TCMX	%	110

PCBs in Soil						
Our Reference		288341-1	288341-6	288341-11	288341-21	288341-34
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH18_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	15/02/2022	15/02/2022	09/02/2022	15/02/2022
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	96	96	109	101

PCBs in Soil		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date extracted	-	09/02/2022
Date analysed	-	09/02/2022
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	110

Acid Extractable metals in soil						
Our Reference		288341-1	288341-3	288341-4	288341-5	288341-6
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH08_0.8-1.0	EPIC_NS_BH12_0.1-0.2	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH13_0-0.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	12	8	11	10	15
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	30	8	8	7
Copper	mg/kg	38	2	63	43	51
Lead	mg/kg	28	13	34	27	30
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	11	2	32	23	18
Zinc	mg/kg	55	2	110	87	67

Acid Extractable metals in soil						
Our Reference		288341-8	288341-9	288341-11	288341-14	288341-16
Your Reference	UNITS	EPIC_NS_BH13_0.9-1.0	EPIC_NS_BH14_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH14_4.0-4.1	EPIC_NS_BH14_6.0-6.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	20	15	7	23	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	11	8	11	6
Copper	mg/kg	56	53	28	53	47
Lead	mg/kg	34	34	25	44	15
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	15	22	7	15	8
Zinc	mg/kg	81	61	41	73	31

Acid Extractable metals in soil						
Our Reference		288341-17	288341-18	288341-19	288341-21	288341-24
Your Reference	UNITS	EPIC_NS_BH15_0-0.1	EPIC_NS_BH15_1.4-1.5	EPIC_NS_BH15_2.9-3.0	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH16_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	30	16	30	13	62
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	10	16	6	19
Copper	mg/kg	60	43	40	33	120
Lead	mg/kg	45	33	49	32	95
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Nickel	mg/kg	19	10	5	10	26
Zinc	mg/kg	84	58	75	33	120

Acid Extractable metals in soil						
Our Reference		288341-26	288341-29	288341-30	288341-32	288341-34
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1	EPIC_NS_BH16_5.9-6.0	EPIC_NS_BH17_0-0.1	EPIC_NS_BH17_2.0-2.1	EPIC_NS_BH18_0.5-0.6
Date Sampled		3/02/2022	3/02/2022	4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	28	16	8	12	17
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	7	19	10	11
Copper	mg/kg	63	55	30	84	59
Lead	mg/kg	40	24	29	28	31
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	11	24	7	8	9
Zinc	mg/kg	56	140	83	49	49

Acid Extractable metals in soil						
Our Reference		288341-37	288341-39	288341-41	288341-45	288341-46
Your Reference	UNITS	EPIC_NS_BH18_3.0-3.1	EPIC_NS_BH18_5.0-5.1	EPIC_NS_BH19_0-0.1	EPIC_NS_QC03	EPIC_NS_QC05
Date Sampled		3/02/2022	3/02/2022	3/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Arsenic	mg/kg	22	7	12	7	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	7	11	29	8
Copper	mg/kg	78	40	49	2	32
Lead	mg/kg	35	12	31	13	50
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	20	3	11	2	9
Zinc	mg/kg	43	12	56	2	55

Acid Extractable metals in soil		
Our Reference		288341-53
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1 - [TRIPLICATE]
Date Sampled		3/02/2022
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Arsenic	mg/kg	24
Cadmium	mg/kg	<0.4
Chromium	mg/kg	7
Copper	mg/kg	67
Lead	mg/kg	31
Mercury	mg/kg	<0.1
Nickel	mg/kg	12
Zinc	mg/kg	44

Moisture						
Our Reference		288341-1	288341-3	288341-4	288341-5	288341-6
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH08_0.8-1.0	EPIC_NS_BH12_0.1-0.2	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH13_0-0.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	20	27	19	9.9	15

Moisture						
Our Reference		288341-8	288341-9	288341-11	288341-14	288341-16
Your Reference	UNITS	EPIC_NS_BH13_0.9-1.0	EPIC_NS_BH14_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH14_4.0-4.1	EPIC_NS_BH14_6.0-6.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	14	18	12	11	12

Moisture						
Our Reference		288341-17	288341-18	288341-19	288341-21	288341-24
Your Reference	UNITS	EPIC_NS_BH15_0-0.1	EPIC_NS_BH15_1.4-1.5	EPIC_NS_BH15_2.9-3.0	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH16_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	24	27	24	22	26

Moisture						
Our Reference		288341-26	288341-29	288341-30	288341-32	288341-34
Your Reference	UNITS	EPIC_NS_BH16_4.0-4.1	EPIC_NS_BH16_5.9-6.0	EPIC_NS_BH17_0-0.1	EPIC_NS_BH17_2.0-2.1	EPIC_NS_BH18_0.5-0.6
Date Sampled		3/02/2022	3/02/2022	4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	26	14	12	8.4	25

Moisture						
Our Reference		288341-37	288341-39	288341-41	288341-45	288341-46
Your Reference	UNITS	EPIC_NS_BH18_3.0-3.1	EPIC_NS_BH18_5.0-5.1	EPIC_NS_BH19_0-0.1	EPIC_NS_QC03	EPIC_NS_QC05
Date Sampled		3/02/2022	3/02/2022	3/02/2022	4/02/2022	4/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	10/02/2022	10/02/2022	10/02/2022	10/02/2022	10/02/2022
Moisture	%	20	19	12	25	15

Misc Soil - Inorg						
Our Reference		288341-1	288341-6	288341-11	288341-21	288341-34
Your Reference	UNITS	EPIC_NS_BH08_0-0.1	EPIC_NS_BH13_0-0.1	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH18_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	4/02/2022	3/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Date analysed	-	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date prepared	-	09/02/2022
Date analysed	-	09/02/2022
Total Phenolics (as Phenol)	mg/kg	<5

Asbestos ID - soils						
Our Reference		288341-6	288341-17	288341-21	288341-30	288341-34
Your Reference	UNITS	EPIC_NS_BH13_0-0.1	EPIC_NS_BH15_0-0.1	EPIC_NS_BH16_0.5-0.6	EPIC_NS_BH17_0-0.1	EPIC_NS_BH18_0.5-0.6
Date Sampled		4/02/2022	4/02/2022	3/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	15/02/2022	15/02/2022	15/02/2022	15/02/2022	15/02/2022
Sample mass tested	g	Approx. 50g	Approx. 45g	Approx. 45g	Approx. 40g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		288341-41
Your Reference	UNITS	EPIC_NS_BH19_0-0.1
Date Sampled		3/02/2022
Type of sample		Soil
Date analysed	-	15/02/2022
Sample mass tested	g	Approx. 85g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected

Metals in Waters - Acid extractable			
Our Reference	UNITS	288341-42	288341-43
Your Reference		EPIC_NS_RB02	EPIC_NS_RB03
Date Sampled		03/02/2022	4/02/2022
Type of sample		Water	Water
Date prepared	-	10/02/2022	10/02/2022
Date analysed	-	10/02/2022	10/02/2022
Arsenic - Total	mg/L	<0.05	<0.05
Cadmium - Total	mg/L	<0.01	<0.01
Chromium - Total	mg/L	0.02	<0.01
Copper - Total	mg/L	<0.01	<0.01
Lead - Total	mg/L	<0.03	<0.03
Mercury - Total	mg/L	<0.0005	<0.0005
Nickel - Total	mg/L	<0.02	<0.02
Zinc - Total	mg/L	<0.02	<0.02

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
cis-1,2-dichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
2,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
1,1,1-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
1,1-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
bromodichloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	88	[NT]
trans-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
1,2-dibromoethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tetrachloroethene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	85	[NT]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluorometha	%		Org-023	103	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	75	[NT]	[NT]	[NT]	[NT]	87	[NT]
Surrogate Toluene-d_8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	93	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	110	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	107	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	89	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	98	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	116	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	98	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<5	[NT]	[NT]	[NT]	[NT]	93	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	114	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	114	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	113	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	115	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	107	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	82	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	104	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	89	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	69	[NT]	[NT]	[NT]	[NT]	80	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	111	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	110	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	115	[NT]	[NT]	[NT]	[NT]	117	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	113	[NT]	[NT]	[NT]	[NT]	123	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	85	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	119	[NT]	[NT]	[NT]	[NT]	128	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	3	<25	<25	0	92	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	3	<25	<25	0	92	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	3	<0.2	<0.2	0	90	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	3	<0.5	<0.5	0	90	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	3	<1	<1	0	89	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	3	<2	<2	0	95	[NT]
o-Xylene	mg/kg	1	Org-023	<1	3	<1	<1	0	93	[NT]
Naphthalene	mg/kg	1	Org-023	<1	3	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	75	3	78	74	5	87	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	26	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	26	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	26	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	26	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	26	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Naphthalene	mg/kg	1	Org-023	[NT]	26	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	26	76	85	11	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			11/02/2022	3	10/02/2022	10/02/2022		10/02/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	3	<50	<50	0	102	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	3	<100	<100	0	96	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	3	<100	<100	0	127	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	3	<50	<50	0	102	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	3	<100	<100	0	96	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	3	<100	<100	0	127	[NT]
Surrogate o-Terphenyl	%		Org-020	88	3	90	87	3	119	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	26	10/02/2022	11/02/2022		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	26	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	26	100	260	89	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	26	<100	130	26	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	26	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	26	150	350	80	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	26	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	26	92	99	7	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	288341-4
Date extracted	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Date analysed	-			09/02/2022	3	14/02/2022	14/02/2022		09/02/2022	14/02/2022
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	114	101
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	121	101
Fluorene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	123	105
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	73	109
Anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	116	100
Pyrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	120	104
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	87	73
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	3	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	3	<0.05	<0.05	0	128	102
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	3	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	97	3	111	110	1	69	98

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	288341-29
Date extracted	-			[NT]	16	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Date analysed	-			[NT]	16	14/02/2022	14/02/2022		14/02/2022	14/02/2022
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	16	0.2	0.2	0	105	105
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	105	109
Fluorene	mg/kg	0.1	Org-022/025	[NT]	16	0.1	0.1	0	109	113
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	16	0.9	0.8	12	114	110
Anthracene	mg/kg	0.1	Org-022/025	[NT]	16	0.2	0.2	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	16	0.6	0.5	18	106	107
Pyrene	mg/kg	0.1	Org-022/025	[NT]	16	0.6	0.5	18	107	110
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	0.2	0.2	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	16	0.2	0.2	0	79	79
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	16	0.3	0.3	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	16	0.2	0.2	0	104	114
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	16	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	16	0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	16	104	102	2	111	107

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	26	14/02/2022	14/02/2022		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	26	0.8	0.6	29	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	26	0.3	0.4	29	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	26	0.4	0.3	29	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	26	0.3	0.3	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	26	5.7	4.9	15	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	26	1.3	1.1	17	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	26	4.9	4.2	15	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	26	4.6	3.9	16	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	2.0	1.6	22	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	26	1.9	1.6	17	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	26	2.4	2.1	13	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	26	1.7	1.4	19	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	26	0.7	0.6	15	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	26	0.2	0.7	111	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	26	0.9	0.8	12	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	26	103	110	7	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	119	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	123	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	120	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	113	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	120	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	[NT]
Date extracted	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Date analysed	-			09/02/2022	[NT]	[NT]	[NT]	[NT]	09/02/2022	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021	85	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-10	288341-29
Date prepared	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Date analysed	-			09/02/2022	3	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Arsenic	mg/kg	4	Metals-020	<4	3	8	8	0	100	86
Cadmium	mg/kg	0.4	Metals-020	<0.4	3	<0.4	<0.4	0	94	75
Chromium	mg/kg	1	Metals-020	<1	3	30	32	6	94	83
Copper	mg/kg	1	Metals-020	<1	3	2	2	0	95	85
Lead	mg/kg	1	Metals-020	<1	3	13	15	14	99	84
Mercury	mg/kg	0.1	Metals-021	<0.1	3	<0.1	<0.1	0	110	124
Nickel	mg/kg	1	Metals-020	<1	3	2	2	0	98	84
Zinc	mg/kg	1	Metals-020	<1	3	2	2	0	103	78

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date prepared	-			[NT]	16	09/02/2022	09/02/2022		09/02/2022	[NT]
Date analysed	-			[NT]	16	09/02/2022	09/02/2022		09/02/2022	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	16	6	7	15	105	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	16	<0.4	<0.4	0	97	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	16	6	6	0	97	[NT]
Copper	mg/kg	1	Metals-020	[NT]	16	47	43	9	96	[NT]
Lead	mg/kg	1	Metals-020	[NT]	16	15	17	12	102	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	16	<0.1	<0.1	0	115	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	16	8	7	13	100	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	16	31	30	3	106	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
Date analysed	-			[NT]	26	09/02/2022	09/02/2022		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	26	28	48	53	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	26	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	26	9	15	50	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	26	63	65	3	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	26	40	36	11	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	26	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	26	11	12	9	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	26	56	48	15	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	288341-6
Date prepared	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Date analysed	-			09/02/2022	1	09/02/2022	09/02/2022		09/02/2022	09/02/2022
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	100	103

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			10/02/2022	42	10/02/2022	10/02/2022		10/02/2022	[NT]
Date analysed	-			10/02/2022	42	10/02/2022	10/02/2022		10/02/2022	[NT]
Arsenic - Total	mg/L	0.05	Metals-020	<0.05	42	<0.05	[NT]		89	[NT]
Cadmium - Total	mg/L	0.01	Metals-020	<0.01	42	<0.01	[NT]		87	[NT]
Chromium - Total	mg/L	0.01	Metals-020	<0.01	42	0.02	[NT]		86	[NT]
Copper - Total	mg/L	0.01	Metals-020	<0.01	42	<0.01	[NT]		87	[NT]
Lead - Total	mg/L	0.03	Metals-020	<0.03	42	<0.03	[NT]		88	[NT]
Mercury - Total	mg/L	0.0005	Metals-021	<0.0005	42	<0.0005	<0.0005	0	110	[NT]
Nickel - Total	mg/L	0.02	Metals-020	<0.02	42	<0.02	[NT]		89	[NT]
Zinc - Total	mg/L	0.02	Metals-020	<0.02	42	<0.02	[NT]		91	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 288341-26 for As and Cr. Therefore a triplicate result has been issued as laboratory sample number 288341-53.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 288341-17 & 34 were sub-sampled from jars provided by the client.

COC Rec'd: 7/2/22, 1830

epic ENVIRONMENTAL

Chain of Custody Record

Project No:	SC210090.01	Lab:	Envirolab
Project/Site:	SMW - CTP - North Strathfield	Lab Quote No:	
Sampled By:	Jayden Pan	Lab Batch No:	
Phone / Email:	Jpan@epicenvironmental.com.au msingleton-fookes@epicenvironmental.com.au	Date Results Required:	Standard TAT
Results to:	labs@epicenvironmental.com.au		
Page 1 of 3		Sample Disposal After:	
Number of Eskies: 3			

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE								vTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
					Glass Jar	Plastic Jar	Plastic bag	Large plastic bag															
1	EPIC_NS_BH08_0-0.1		04/02/2022	s			1										x	x	x	x	x		
2	EPIC_NS_BH08_0.5-0.6		04/02/2022	s			1																x
3	EPIC_NS_BH08_0.8-1.0		04/02/2022	s			1								x								
4	EPIC_NS_BH12_0.1-0.2		04/02/2022	s			1										x						
5	EPIC_NS_BH12_0.5-0.6		04/02/2022	s			1										x	x					
6	EPIC_NS_BH13_0-0.1		04/02/2022	s			1									x			x	x	x		
7	EPIC_NS_BH13_0.3-0.4		04/02/2022	s			1																x
8	EPIC_NS_BH13_0.9-1.0		04/02/2022	s			1										x						
9	EPIC_NS_BH14_0-0.1		04/02/2022	s			1	1									x	x					
10	EPIC_NS_BH14_0.5-0.6		04/02/2022	s			1																x
11	EPIC_NS_BH14_1.0-1.2		04/02/2022	s			1								x				x	x	x		
12	EPIC_NS_BH14_2.0-2.1		04/02/2022	s			1																x
13	EPIC_NS_BH14_3.0-3.1		04/02/2022	s			1																x
14	EPIC_NS_BH14_4.0-4.1		04/02/2022	s		1	1										x					x	
15	EPIC_NS_BH14_5.0-5.1		04/02/2022	s			1																x
16	EPIC_NS_BH14_6.0-6.1		04/02/2022	s			0										x						
17	EPIC_NS_BH15_0-0.1		04/02/2022	s			1									x		x					
18	EPIC_NS_BH15_1.4-1.5		04/02/2022	s			1										x						
19	EPIC_NS_BH15_2.9-3.0		04/02/2022	s		1	1										x					x	
				TOTALS		2	18	1					0	0	2	2	9	4	3	3	3	2	6

Relinquished By:				Received By:		
NAME	SIGNATURE	MK	DATE	NAME	SIGNATURE	DATE

Custody Seals Intact	Y	N
Samples Received Chilled	Y	N
Method of Shipment		

NOTES: Analysis to come via email.

Epic Environmental Pty Ltd ABN 54 169 579 275
Level 6, 193 North Quay, Brisbane QLD 4000

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email labs@epicenvironmental.com.au

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288341
Date Received: 07/02/22
Time Received: 1640
Received by: CR
Temp: Cool/Ambient 15.0 C
Cooling: Icepack
Security: Intact/Broken/None

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Chain of Custody Record

Project No:	SC210090.01
Project/Site:	SMW - CTP - North Strathfield
Sampled By:	Jayden Pan
Phone / Email:	Jpan@epicenvironmental.com.au msingleton-fookes@epicenvironmental.com.au
Results to:	labs@epicenvironmental.com.au
Page 1 of 3	
Number of Eskies: 3	

Lab:	Envirolab
Lab Quote No:	
Lab Batch No:	
Date Results Required:	Standard TAT
Sample Disposal After:	

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE								VTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
					Glass Jar	Plastic Jar	Plastic bag	Large plastic bag															

epic ENVIRONMENTAL

Chain of Custody Record

Project No: SC210090.01
Project/Site: SMW - CTP - North Strathfield
Sampled By: Jayden Pan
Phone / Email: Jpan@epicenvironmental.com.au; msingleton-fookes@epicenvironmental.com.au
Results to: labs@epicenvironmental.com.au
Page 2 of 3
Number of Eskies: 3

Lab: Envirolab
Lab Quote No:
Lab Batch No:
Date Results Required: Standard TAT
Sample Disposal After:

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	Glass Jar	Plastic Jar	Plastic bag	Large plastic bag	VTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
20	EPIC_NS_BH16_0-0.1		03/02/2022	s	1		1												x
21	EPIC_NS_BH16_0.5-0.6		03/02/2022	s	1		1					x			x	x	x		
22	EPIC_NS_BH16_0.8-0.9		03/02/2022	s	1		1												x
23	EPIC_NS_BH16_1.5-1.6		03/02/2022	s	1		1												x
24	EPIC_NS_BH16_2.0-2.1		03/02/2022	s	1	1	1						x					x	
25	EPIC_NS_BH16_3.0-3.1		03/02/2022	s	1		1												x
26	EPIC_NS_BH16_4.0-4.1		03/02/2022	s	1		1				x								
27	EPIC_NS_BH16_5.0-5.1		03/02/2022	s	1		1												x
28	EPIC_NS_BH16_5.5-5.6		03/02/2022	s	1		0												x
29	EPIC_NS_BH16_5.9-6.0		03/02/2022	s	1		0						x						
30	EPIC_NS_BH17_0-0.1		04/02/2022	s	1		1					x		x					
31	EPIC_NS_BH17_1.0-1.1		04/02/2022	s	1		1												x
32	EPIC_NS_BH17_2.0-2.1		04/02/2022	s	1	1	1						x					x	
33	EPIC_NS_BH17_2.9-3.0		04/02/2022	s	1		1												x
34	EPIC_NS_BH18_0.5-0.6		03/02/2022	s	1		1					x			x	x	x		
35	EPIC_NS_BH18_1.0-1.1		03/02/2022	s	1		1												x
36	EPIC_NS_BH18_2.0-2.1		03/02/2022	s	1		1												x
37	EPIC_NS_BH18_3.0-3.1		03/02/2022	s	1		1						x						
38	EPIC_NS_BH18_4.0-4.1		03/02/2022	s	1		0												x
39	EPIC_NS_BH18_5.0-5.1		03/02/2022	s	1		0						x						
40	EPIC_NS_BH18_5.9-6.0		03/02/2022	s	1		0												x
41	EPIC_NS_BH19_0-0.1		03/02/2022	s	1		0					x		x	x	x	x		
				TOTALS	22	2	16		0	0	1	4	5	2	3	3	3	2	12

Relinquished By:				
NAME	SIGNATURE	MK	DATE	
Received By:				
NAME	SIGNATURE		DATE	

Custody Seals Intact	Y	N
Samples Received Chilled	Y	N
Method of Shipment		

288341

epic ENVIRONMENTAL

Chain of Custody Record

Project No:	SC210090.01
Project/Site:	SMW - CTP - North Strathfield
Sampled By:	Jayden Pan
Phone / Email:	Jpan@epicenvironmental.com.au msingleton-fookes@epicenvironmental.com.au
Results to:	labs@epicenvironmental.com.au
Page 1 of 3	
Number of Eskies: 3	

Lab:	Envirolab
Lab Quote No:	
Lab Batch No:	
Date Results Required:	Standard TAT
Sample Disposal After:	

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE								vTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
					Glass Jar	Plastic Jar	Plastic bag	Large plastic bag															

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Chain of Custody Record

Project No:	SC210090.01
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Results to:	labs@epicenvironmental.com.au
Page 3 of 3	
Number of Eskies: 3	

Lab:	Envirolab
Lab Quote No:	
Lab Batch No:	
Date Results Required:	Standard TAT
Sample Disposal After:	

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE								vTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
					Glass Jar	Plastic Jar	Plastic bag	Large plastic bag	metals bottle	Glass Vial													
42	EPIC_NS_RB02		03/02/2022	W					1					x									
43	EPIC_NS_RB03		04/02/2022	W					1					x									
44	EPIC_NS_RB04		04/02/2022	W					1														x
45	EPIC_NS_QC03		04/02/2022	S	1										x								
Please send to Eurofins	EPIC_NS_QC04		04/02/2022	S	1										x								
46	EPIC_NS_QC05		04/02/2022	S	1										x								
Please send to Eurofins	EPIC_NS_QC06		04/02/2022	S	1										x								
47	EPIC_NS_TB03		03/02/2022	S						1			x										
48	EPIC_NS_TB04		03/02/2022	S						1													x
49	EPIC_NS_TS03		04/02/2022	S						1			x										
50	EPIC_NS_TS04		04/02/2022	S						1													x
extra																							
51	BH18 0-0.1																						
52	BH? 0-0.1 4/2																						
				TOTALS	4				3	4			2	2	4	0	0	0	0			0	3

Relinquished By:				Received By:	
NAME	SIGNATURE	MK	DATE	NAME	SIGNATURE	DATE

Custody Seals Intact	Y	N
Samples Received Chilled	Y	N
Method of Shipment		

NOTES: Analysis to come via email.

288341

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 288341-A

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	additional analysis
Date samples received	07/02/2022
Date completed instructions received	16/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/02/2022
Date of Issue	18/02/2022

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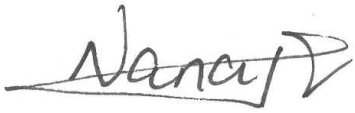
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Dragana Tomas, Senior Chemist

Authorised By



Nancy Zhang, Laboratory Manager

PAHs in TCLP (USEPA 1311)			
Our Reference		288341-A-24	288341-A-26
Your Reference	UNITS	EPIC_NS_BH16_2.0-2.1	EPIC_NS_BH16_4.0-4.1
Date Sampled		3/02/2022	3/02/2022
Type of sample		Soil	Soil
pH of soil for fluid# determ.	pH units	9.2	9.5
pH of soil TCLP (after HCl)	pH units	1.7	1.7
Extraction fluid used	-	1	1
pH of final Leachate	pH units	5.1	5.2
Date extracted	-	17/02/2022	17/02/2022
Date analysed	-	18/02/2022	18/02/2022
Naphthalene in TCLP	mg/L	<0.001	0.002
Acenaphthylene in TCLP	mg/L	<0.001	<0.001
Acenaphthene in TCLP	mg/L	<0.001	<0.001
Fluorene in TCLP	mg/L	<0.001	<0.001
Phenanthrene in TCLP	mg/L	<0.001	0.002
Anthracene in TCLP	mg/L	<0.001	<0.001
Fluoranthene in TCLP	mg/L	<0.001	<0.001
Pyrene in TCLP	mg/L	<0.001	<0.001
Benzo(a)anthracene in TCLP	mg/L	<0.001	<0.001
Chrysene in TCLP	mg/L	<0.001	<0.001
Benzo(bjk)fluoranthene in TCLP	mg/L	<0.002	<0.002
Benzo(a)pyrene in TCLP	mg/L	<0.001	<0.001
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	<0.001	<0.001
Dibenzo(a,h)anthracene in TCLP	mg/L	<0.001	<0.001
Benzo(g,h,i)perylene in TCLP	mg/L	<0.001	<0.001
Total +ve PAH's	mg/L	NIL (+)VE	0.0031
Surrogate p-Terphenyl-d14	%	117	122

Method ID	Methodology Summary
INORG-004	Toxicity Characteristic Leaching Procedure (TCLP) using Zero Headspace Extraction (zHE) using AS4439 and USEPA 1311.
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Org-022/025	Leachates are extracted with Dichloromethane and analysed by GC-MS/GC-MSMS.

QUALITY CONTROL: PAHs in TCLP (USEPA 1311)						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			17/02/2022	24	17/02/2022	17/02/2022		17/02/2022	[NT]
Date analysed	-			18/02/2022	24	18/02/2022	18/02/2022		18/02/2022	[NT]
Naphthalene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	97	[NT]
Acenaphthylene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Acenaphthene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	99	[NT]
Fluorene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	101	[NT]
Phenanthrene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	104	[NT]
Anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Fluoranthene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	104	[NT]
Pyrene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	105	[NT]
Benzo(a)anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Chrysene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	69	[NT]
Benzo(bjk)fluoranthene in TCLP	mg/L	0.002	Org-022/025	<0.002	24	<0.002	<0.002	0	[NT]	[NT]
Benzo(a)pyrene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	110	[NT]
Indeno(1,2,3-c,d)pyrene - TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Dibenzo(a,h)anthracene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Benzo(g,h,i)perylene in TCLP	mg/L	0.001	Org-022/025	<0.001	24	<0.001	<0.001	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	110	24	117	122	4	113	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW - CTP - North Strathfield
Envirolab Reference	288341-A
Date Sample Received	07/02/2022
Date Instructions Received	16/02/2022
Date Results Expected to be Reported	23/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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Sample ID	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(bjk)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
EPIC_NS_BH08_0-0.1																						✓
EPIC_NS_BH08_0.5-0.6																						✓
EPIC_NS_BH08_0.8-1.0																						✓
EPIC_NS_BH12_0.1-0.2																						✓
EPIC_NS_BH12_0.5-0.6																						✓
EPIC_NS_BH13_0-0.1																						✓
EPIC_NS_BH13_0.3-0.4																						✓
EPIC_NS_BH13_0.9-1.0																						✓
EPIC_NS_BH14_0-0.1																						✓
EPIC_NS_BH14_0.5-0.6																						✓
EPIC_NS_BH14_1.0-1.2																						✓
EPIC_NS_BH14_2.0-2.1																						✓
EPIC_NS_BH14_3.0-3.1																						✓
EPIC_NS_BH14_4.0-4.1																						✓
EPIC_NS_BH14_5.0-5.1																						✓
EPIC_NS_BH14_6.0-6.1																						✓
EPIC_NS_BH15_0-0.1																						✓
EPIC_NS_BH15_1.4-1.5																						✓
EPIC_NS_BH15_2.9-3.0																						✓
EPIC_NS_BH16_0-0.1																						✓

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
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Sample ID	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(bjk)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
EPIC_NS_BH16_0.5-0.6																						✓
EPIC_NS_BH16_0.8-0.9																						✓
EPIC_NS_BH16_1.5-1.6																						✓
EPIC_NS_BH16_2.0-2.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
EPIC_NS_BH16_3.0-3.1																						✓
EPIC_NS_BH16_4.0-4.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
EPIC_NS_BH16_5.0-5.1																						✓
EPIC_NS_BH16_5.5-5.6																						✓
EPIC_NS_BH16_5.9-6.0																						✓
EPIC_NS_BH17_0-0.1																						✓
EPIC_NS_BH17_1.0-1.1																						✓
EPIC_NS_BH17_2.0-2.1																						✓
EPIC_NS_BH17_2.9-3.0																						✓
EPIC_NS_BH18_0.5-0.6																						✓
EPIC_NS_BH18_1.0-1.1																						✓
EPIC_NS_BH18_2.0-2.1																						✓
EPIC_NS_BH18_3.0-3.1																						✓
EPIC_NS_BH18_4.0-4.1																						✓
EPIC_NS_BH18_5.0-5.1																						✓
EPIC_NS_BH18_5.9-6.0																						✓

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Sample ID	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Naphthalene in TCLP	Acenaphthylene in TCLP	Acenaphthene in TCLP	Fluorene in TCLP	Phenanthrene in TCLP	Anthracene in TCLP	Fluoranthene in TCLP	Pyrene in TCLP	Benzo(a)anthracene in TCLP	Chrysene in TCLP	Benzo(bjk)fluoranthene in TCLP	Benzo(a)pyrene in TCLP	Indeno(1,2,3-c,d)pyrene - TCLP	Dibenzo(a,h)anthracene in TCLP	Benzo(g,h,i)perylene in TCLP	Total +vePAH's	Surrogate p-Terphenyl-d14	On Hold
EPIC_NS_BH19_0-0.1																						✓
EPIC_NS_RB02																						✓
EPIC_NS_RB03																						✓
EPIC_NS_RB04																						✓
EPIC_NS_QC03																						✓
EPIC_NS_QC05																						✓
EPIC_NS_TB03																						✓
EPIC_NS_TB04																						✓
EPIC_NS_TS03																						✓
EPIC_NS_TS04																						✓
EPIC_NS_BH18_0-0.1																						✓
EPIC_NS_BH _0-0.1																						✓
EPIC_NS_BH16_4.0-4.1 - [TRIPLICATE]																						✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

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Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 288341-A
TAT: Standard
Due: 23/02/2022
MT

288341-A

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Wednesday, 16 February 2022 2:29 PM
To: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Subject: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

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Afternoon Jeremy,

Could you please schedule the additional analysis below for samples from report 288341.

- Benzo(a)pyrene TCLP on samples: BH16_2.0-2.1 (24) and BH16_4.0-4.1 (26).

Standard TAT please.

Many thanks,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

Phone: 1800 779 363
Mobile: 0417 217 179
Email: msingleton-fookes@epicenvironmental.com.au
Suite 5, Level 9, 189 Kent Street, Sydney, NSW, 2000

Epic Environmental acknowledges the Australian Aboriginal and Torres Strait Islander peoples as the first inhabitants of the nation and the traditional custodians of the lands where we live, learn and work.

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CERTIFICATE OF ANALYSIS 288341-B

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	additional analysis
Date samples received	07/02/2022
Date completed instructions received	16/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/02/2022
Date of Issue	21/02/2022

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Lucy Zhu
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Lucy Zhu, Asbestos Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		288341-B-5	288341-B-29
Your Reference	UNITS	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH16_5.9-6.0
Date Sampled		4/02/2022	3/02/2022
Type of sample		Soil	Soil
Date extracted	-	17/02/2022	17/02/2022
Date analysed	-	17/02/2022	17/02/2022
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	77	87

svTRH (C10-C40) in Soil			
Our Reference		288341-B-5	288341-B-29
Your Reference	UNITS	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH16_5.9-6.0
Date Sampled		4/02/2022	3/02/2022
Type of sample		Soil	Soil
Date extracted	-	17/02/2022	17/02/2022
Date analysed	-	19/02/2022	19/02/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	88	87

Asbestos ID - soils				
Our Reference		288341-B-5	288341-B-11	288341-B-24
Your Reference	UNITS	EPIC_NS_BH12_0.5-0.6	EPIC_NS_BH14_1.0-1.2	EPIC_NS_BH16_2.0-2.1
Date Sampled		4/02/2022	4/02/2022	3/02/2022
Type of sample		Soil	Soil	Soil
Date analysed	-	18/02/2022	18/02/2022	18/02/2022
Sample mass tested	g	Approx. 50g	Approx. 40g	Approx. 40g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Date analysed	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	88	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	93	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	81	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	82	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	79	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	82	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			17/02/2022	[NT]	[NT]	[NT]	[NT]	17/02/2022	[NT]
Date analysed	-			18/02/2022	[NT]	[NT]	[NT]	[NT]	18/02/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	113	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	127	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	113	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	127	[NT]
Surrogate o-Terphenyl	%		Org-020	91	[NT]	[NT]	[NT]	[NT]	109	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW - CTP - North Strathfield
Envirolab Reference	288341-B
Date Sample Received	07/02/2022
Date Instructions Received	16/02/2022
Date Results Expected to be Reported	23/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Asbestos ID - soils	On Hold
EPIC_NS_BH08_0-0.1				✓
EPIC_NS_BH08_0.5-0.6				✓
EPIC_NS_BH08_0.8-1.0				✓
EPIC_NS_BH12_0.1-0.2				✓
EPIC_NS_BH12_0.5-0.6	✓	✓	✓	
EPIC_NS_BH13_0-0.1				✓
EPIC_NS_BH13_0.3-0.4				✓
EPIC_NS_BH13_0.9-1.0				✓
EPIC_NS_BH14_0-0.1				✓
EPIC_NS_BH14_0.5-0.6				✓
EPIC_NS_BH14_1.0-1.2			✓	
EPIC_NS_BH14_2.0-2.1				✓
EPIC_NS_BH14_3.0-3.1				✓
EPIC_NS_BH14_4.0-4.1				✓
EPIC_NS_BH14_5.0-5.1				✓
EPIC_NS_BH14_6.0-6.1				✓
EPIC_NS_BH15_0-0.1				✓
EPIC_NS_BH15_1.4-1.5				✓
EPIC_NS_BH15_2.9-3.0				✓
EPIC_NS_BH16_0-0.1				✓
EPIC_NS_BH16_0.5-0.6				✓
EPIC_NS_BH16_0.8-0.9				✓
EPIC_NS_BH16_1.5-1.6				✓
EPIC_NS_BH16_2.0-2.1			✓	
EPIC_NS_BH16_3.0-3.1				✓
EPIC_NS_BH16_4.0-4.1				✓
EPIC_NS_BH16_5.0-5.1				✓
EPIC_NS_BH16_5.5-5.6				✓
EPIC_NS_BH16_5.9-6.0	✓	✓		
EPIC_NS_BH17_0-0.1				✓
EPIC_NS_BH17_1.0-1.1				✓
EPIC_NS_BH17_2.0-2.1				✓

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Asbestos ID - soils	On Hold
EPIC_NS_BH17_2.9-3.0				✓
EPIC_NS_BH18_0.5-0.6				✓
EPIC_NS_BH18_1.0-1.1				✓
EPIC_NS_BH18_2.0-2.1				✓
EPIC_NS_BH18_3.0-3.1				✓
EPIC_NS_BH18_4.0-4.1				✓
EPIC_NS_BH18_5.0-5.1				✓
EPIC_NS_BH18_5.9-6.0				✓
EPIC_NS_BH19_0-0.1				✓
EPIC_NS_RB02				✓
EPIC_NS_RB03				✓
EPIC_NS_RB04				✓
EPIC_NS_QC03				✓
EPIC_NS_QC05				✓
EPIC_NS_TB03				✓
EPIC_NS_TB04				✓
EPIC_NS_TS03				✓
EPIC_NS_TS04				✓
EPIC_NS_BH18_0-0.1				✓
EPIC_NS_BH _0-0.1				✓
EPIC_NS_BH16_4.0-4.1 - [TRIPLICATE]				✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

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Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 288341-B.
TAT: Standard
Due: 23/02/2022
MT.

288341-B

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Wednesday, 16 February 2022 3:33 PM
To: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

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Hi Sample receipt team,

Could you also please schedule the additional analysis below (report number in brackets):

Standard TAT is okay.

Asbestos
5 BH12_0.5-0.6 (288341)
11 BH14_1.0-1.2 (288341)
24 BH16_2.0-2.1 (288341)
BH20_0.5-0.6 (288141)

TRH/BTEX
BH09_0.7-0.8 (287841)
5 BH12_0.5-0.6 (288341)
29 BH16_5.9-6.0 (288341)

VOCs
BH09_0.7-0.8 (287841)

PFAS → Could you please update the PFAS in soil LOR to 5 microgram/kg
BH04_0.9-1.0 (287841)
BH20_3.0-3.1 (288141)

Thank you,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

From: Jeremy Faircloth <JFaircloth@envirolab.com.au>
Sent: Wednesday, 16 February 2022 2:37 PM

Envirolab Services Pty Ltd
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customerservice@envirolab.com.au
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CERTIFICATE OF ANALYSIS 288341-C

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes
Address	Suite 4.01, 55 Miller St, Pyrmont, NSW, 2009

Sample Details

Your Reference	**SC210090.01, SMW - CTP - North Strathfield**
Number of Samples	additional analysis
Date samples received	07/02/2022
Date completed instructions received	17/02/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

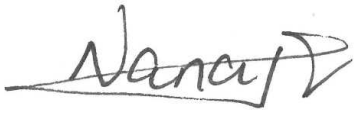
Date results requested by	24/02/2022
Date of Issue	24/02/2022

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Giovanni Agosti, Group Technical Manager

Authorised By



Nancy Zhang, Laboratory Manager

Misc Inorg - Soil		
Our Reference		288341-C-4
Your Reference	UNITS	EPIC_NS_BH12_0.1-0.2
Date Sampled		4/02/2022
Type of sample		Soil
Date prepared	-	22/02/2022
Date analysed	-	22/02/2022
pH 1:5 soil:water	pH Units	9.2

CEC		
Our Reference		288341-C-4
Your Reference	UNITS	EPIC_NS_BH12_0.1-0.2
Date Sampled		4/02/2022
Type of sample		Soil
Date prepared	-	23/02/2022
Date analysed	-	23/02/2022
Exchangeable Ca	meq/100g	10
Exchangeable K	meq/100g	0.4
Exchangeable Mg	meq/100g	3.5
Exchangeable Na	meq/100g	0.8
Cation Exchange Capacity	meq/100g	15

Acid Extractable metals in soil		
Our Reference		288341-C-4
Your Reference	UNITS	EPIC_NS_BH12_0.1-0.2
Date Sampled		4/02/2022
Type of sample		Soil
Date prepared	-	23/02/2022
Date analysed	-	23/02/2022
Iron	mg/kg	54,000

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Metals-020	Determination of various metals by ICP-AES.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			22/02/2022	[NT]	[NT]	[NT]	[NT]	22/02/2022	[NT]
Date analysed	-			22/02/2022	[NT]	[NT]	[NT]	[NT]	22/02/2022	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Date analysed	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Date analysed	-			23/02/2022	[NT]	[NT]	[NT]	[NT]	23/02/2022	[NT]
Iron	mg/kg	10	Metals-020	<10	[NT]	[NT]	[NT]	[NT]	95	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

pH Samples were out of the recommended holding time for this analysis.

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SAMPLE RECEIPT ADVICE

Client Details

Client	Epic Environmental (Sydney) Pty Ltd
Attention	Morgan Singleton-Fookes

Sample Login Details

Your reference	SC210090.01, SMW - CTP - North Strathfield
Envirolab Reference	288341-C
Date Sample Received	07/02/2022
Date Instructions Received	17/02/2022
Date Results Expected to be Reported	24/02/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	15
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	Misc Inorg - Soil	CEC	Acid Extractable metalsin soil	On Hold
EPIC_NS_BH08_0-0.1				✓
EPIC_NS_BH08_0.5-0.6				✓
EPIC_NS_BH08_0.8-1.0				✓
EPIC_NS_BH12_0.1-0.2	✓	✓	✓	
EPIC_NS_BH12_0.5-0.6				✓
EPIC_NS_BH13_0-0.1				✓
EPIC_NS_BH13_0.3-0.4				✓
EPIC_NS_BH13_0.9-1.0				✓
EPIC_NS_BH14_0-0.1				✓
EPIC_NS_BH14_0.5-0.6				✓
EPIC_NS_BH14_1.0-1.2				✓
EPIC_NS_BH14_2.0-2.1				✓
EPIC_NS_BH14_3.0-3.1				✓
EPIC_NS_BH14_4.0-4.1				✓
EPIC_NS_BH14_5.0-5.1				✓
EPIC_NS_BH14_6.0-6.1				✓
EPIC_NS_BH15_0-0.1				✓
EPIC_NS_BH15_1.4-1.5				✓
EPIC_NS_BH15_2.9-3.0				✓
EPIC_NS_BH16_0-0.1				✓
EPIC_NS_BH16_0.5-0.6				✓
EPIC_NS_BH16_0.8-0.9				✓
EPIC_NS_BH16_1.5-1.6				✓
EPIC_NS_BH16_2.0-2.1				✓
EPIC_NS_BH16_3.0-3.1				✓
EPIC_NS_BH16_4.0-4.1				✓
EPIC_NS_BH16_5.0-5.1				✓
EPIC_NS_BH16_5.5-5.6				✓
EPIC_NS_BH16_5.9-6.0				✓
EPIC_NS_BH17_0-0.1				✓
EPIC_NS_BH17_1.0-1.1				✓
EPIC_NS_BH17_2.0-2.1				✓

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Sample ID	Misc Inorg - Soil	CEC	Acid Extractable metalsin soil	On Hold
EPIC_NS_BH17_2.9-3.0				✓
EPIC_NS_BH18_0.5-0.6				✓
EPIC_NS_BH18_1.0-1.1				✓
EPIC_NS_BH18_2.0-2.1				✓
EPIC_NS_BH18_3.0-3.1				✓
EPIC_NS_BH18_4.0-4.1				✓
EPIC_NS_BH18_5.0-5.1				✓
EPIC_NS_BH18_5.9-6.0				✓
EPIC_NS_BH19_0-0.1				✓
EPIC_NS_RB02				✓
EPIC_NS_RB03				✓
EPIC_NS_RB04				✓
EPIC_NS_QC03				✓
EPIC_NS_QC05				✓
EPIC_NS_TB03				✓
EPIC_NS_TB04				✓
EPIC_NS_TS03				✓
EPIC_NS_TS04				✓
EPIC_NS_BH18_0-0.1				✓
EPIC_NS_BH _0-0.1				✓
EPIC_NS_BH16_4.0-4.1 - [TRIPLICATE]				✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Ref: 288341-C
TAT: Standard
Due: 24/02/2022
MT

288341-C

From: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Sent: Thursday, 17 February 2022 5:10 PM
To: Ming To <MTo@envirolab.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hi Ming,

Could you also please undertake analysis of pH, CEC, and iron on the following samples:

BH11_0.6-0.7 288341
4 BH12_0.1-0.2

Many thanks,
Morgan

Morgan Singleton-Fookes
Project Environmental Scientist
MSc Environmental Geology

From: Ming To <MTo@envirolab.com.au>
Sent: Wednesday, 16 February 2022 5:33 PM
To: Morgan Singleton-Fookes <msingleton-fookes@epicenvironmental.com.au>
Cc: Samplereceipt <Samplereceipt@envirolabservices.com.au>; Jeremy Faircloth <JFaircloth@envirolab.com.au>
Subject: RE: Results for Registration 288341 SC210090.01, SMW - CTP - North Strathfield

Hi Morgan,

No worries, I'll book these in for you.

Kind Regards,

Ming To | Customer Service | Envirolab Services

Great Science. Great Service.

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Epic Environmental Pty Ltd (NSW)
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Brisbane
QLD 4000

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: **Morgan Singleton-Fookes**

Report **861533-S**
Project name SMW-CTP-NORTH STRATHFIELD
Project ID SC210090.01
Received Date Feb 08, 2022

Client Sample ID			**EPIC_NS_QC02**
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Fe13630**
Date Sampled			**Feb 02, 2022**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	21
TRH C15-C28	50	mg/kg	67
TRH C29-C36	50	mg/kg	55
TRH C10-C36 (Total)	50	mg/kg	143
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	110
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	110
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	%	83
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

Client Sample ID			EPIC_NS_QC02
Sample Matrix			**Soil**
Eurofins Sample No.			**S22-Fe13630**
Date Sampled			**Feb 02, 2022**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
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	%	69
p-Terphenyl-d14 (surr.)	1	%	74
Heavy Metals			
Arsenic	2	mg/kg	3.5
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	14
Copper	5	mg/kg	13
Lead	5	mg/kg	19
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	7.2
Zinc	5	mg/kg	35
% Moisture	1	%	9.0

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	Feb 09, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 09, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 09, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Feb 09, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 09, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Feb 09, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Feb 09, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

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NATA # 1261 Site # 18217

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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

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Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

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Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

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Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Epic Environmental Pty Ltd (NSW)
Address: Level 17, 95 North Quay
Brisbane
QLD 4000

Project Name: SMW-CTP-NORTH STRATHFIELD
Project ID: SC210090.01

Order No.:
Report #: 861533
Phone:
Fax:

Received: Feb 8, 2022 2:47 PM
Due: Feb 15, 2022
Priority: 5 Day
Contact Name: Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Moisture Set	Eurofins Suite B7	Eurofins Suite B7 (filtered metals)
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						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	EPIC_NS_WQC01	Feb 02, 2022		Water	S22-Fe13629			X
2	EPIC_NS_QC02	Feb 02, 2022		Soil	S22-Fe13630	X	X	
Test Counts						1	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	90			70-130	Pass	
TRH C10-C14	%	125			70-130	Pass	
Naphthalene	%	108			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	121			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	90			70-130	Pass	
Ethylbenzene	%	88			70-130	Pass	
m&p-Xylenes	%	92			70-130	Pass	
o-Xylene	%	90			70-130	Pass	
Xylenes - Total*	%	91			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	99			70-130	Pass	
Acenaphthylene	%	109			70-130	Pass	
Anthracene	%	94			70-130	Pass	
Benz(a)anthracene	%	90			70-130	Pass	
Benzo(a)pyrene	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	%	86			70-130	Pass	
Benzo(g.h.i)perylene	%	117			70-130	Pass	
Benzo(k)fluoranthene	%	107			70-130	Pass	
Chrysene	%	102			70-130	Pass	
Dibenz(a.h)anthracene	%	104			70-130	Pass	
Fluoranthene	%	93			70-130	Pass	
Fluorene	%	98			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	99			70-130	Pass	
Naphthalene	%	104			70-130	Pass	
Phenanthrene	%	98			70-130	Pass	
Pyrene	%	93			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	106			80-120	Pass	
Cadmium	%	110			80-120	Pass	
Chromium	%	109			80-120	Pass	
Copper	%	111			80-120	Pass	
Lead	%	113			80-120	Pass	
Mercury	%	109			80-120	Pass	
Nickel	%	112			80-120	Pass	
Zinc	%	82			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	S22-Fe13201	NCP	%	89			70-130	Pass	
TRH C10-C14	S22-Fe14936	NCP	%	73			70-130	Pass	
Naphthalene	S22-Fe13201	NCP	%	88			70-130	Pass	
TRH C6-C10	S22-Fe13201	NCP	%	86			70-130	Pass	
TRH >C10-C16	S22-Fe14936	NCP	%	71			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Fe13201	NCP	%	88			70-130	Pass	
Toluene	S22-Fe13201	NCP	%	83			70-130	Pass	
Ethylbenzene	S22-Fe13201	NCP	%	79			70-130	Pass	
m&p-Xylenes	S22-Fe13201	NCP	%	85			70-130	Pass	
o-Xylene	S22-Fe13201	NCP	%	83			70-130	Pass	
Xylenes - Total*	S22-Fe13201	NCP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Fe16016	NCP	%	89			70-130	Pass	
Acenaphthylene	S22-Fe16016	NCP	%	93			70-130	Pass	
Anthracene	S22-Fe13590	NCP	%	79			70-130	Pass	
Benz(a)anthracene	S22-Fe13590	NCP	%	76			70-130	Pass	
Benzo(a)pyrene	S22-Fe16016	NCP	%	83			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Fe13590	NCP	%	78			70-130	Pass	
Benzo(g.h.i)perylene	S22-Fe16016	NCP	%	78			70-130	Pass	
Benzo(k)fluoranthene	S22-Fe16016	NCP	%	105			70-130	Pass	
Chrysene	S22-Fe16016	NCP	%	85			70-130	Pass	
Dibenz(a.h)anthracene	S22-Fe16016	NCP	%	76			70-130	Pass	
Fluoranthene	S22-Fe13590	NCP	%	81			70-130	Pass	
Fluorene	S22-Fe16016	NCP	%	88			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Fe16016	NCP	%	72			70-130	Pass	
Naphthalene	S22-Fe16016	NCP	%	90			70-130	Pass	
Phenanthrene	S22-Fe13590	NCP	%	84			70-130	Pass	
Pyrene	S22-Fe13590	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Fe15111	NCP	%	89			75-125	Pass	
Cadmium	S22-Fe15111	NCP	%	68			75-125	Fail	Q08
Chromium	S22-Fe15111	NCP	%	93			75-125	Pass	
Copper	S22-Fe15111	NCP	%	78			75-125	Pass	
Lead	S22-Fe15111	NCP	%	82			75-125	Pass	
Mercury	S22-Fe15111	NCP	%	97			75-125	Pass	
Nickel	S22-Fe15111	NCP	%	80			75-125	Pass	
Zinc	S22-Fe14915	NCP	%	78			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	S22-Fe13590	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Fe16015	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Fe16015	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Fe16015	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Fe13590	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Fe13590	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Fe16015	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Fe16015	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Fe16015	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Fe13590	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Fe13590	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Fe13590	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Fe13590	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Fe13590	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Fe13590	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Fe16015	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Fe14644	NCP	mg/kg	9.5	5.9	46	30%	Fail	Q15
Cadmium	S22-Fe14644	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Fe14644	NCP	mg/kg	36	26	33	30%	Fail	Q15
Copper	S22-Fe14644	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Fe14644	NCP	mg/kg	17	13	26	30%	Pass	
Mercury	S22-Fe14644	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Fe14644	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Fe14644	NCP	mg/kg	6.0	< 5	27	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Fe13597	NCP	%	10	11	6.0	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
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Accreditation Number 1261
Site Number 18217

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Attention: **Morgan Singleton-Fookes**

Report **861533-W**
Project name SMW-CTP-NORTH STRATHFIELD
Project ID SC210090.01
Received Date Feb 08, 2022

Client Sample ID			**EPIC_NS_WQC01**
Sample Matrix			**Water**
Eurofins Sample No.			**S22-Fe13629**
Date Sampled			**Feb 02, 2022**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1
Naphthalene[N02]	0.01	mg/L	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	86
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
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	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001

Client Sample ID			EPIC_NS_WQC01
Sample Matrix			**Water**
Eurofins Sample No.			**S22-Fe13629**
Date Sampled			**Feb 02, 2022**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	INT
p-Terphenyl-d14 (surr.)	1	%	92
Heavy Metals			
Arsenic (filtered)	0.001	mg/L	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	0.002
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	0.004
Zinc (filtered)	0.005	mg/L	0.020

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	Feb 11, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 09, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 11, 2022	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Feb 09, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 14, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8 filtered	Sydney	Feb 09, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

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Company Name: Epic Environmental Pty Ltd (NSW)
Address: Level 17, 95 North Quay
Brisbane
QLD 4000

Project Name: SMW-CTP-NORTH STRATHFIELD
Project ID: SC210090.01

Order No.:
Report #: 861533
Phone:
Fax:

Received: Feb 8, 2022 2:47 PM
Due: Feb 15, 2022
Priority: 5 Day
Contact Name: Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Moisture Set	Eurofins Suite B7	Eurofins Suite B7 (filtered metals)
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						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	EPIC_NS_WQC01	Feb 02, 2022		Water	S22-Fe13629			X
2	EPIC_NS_QC02	Feb 02, 2022		Soil	S22-Fe13630	X	X	
Test Counts						1	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

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	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	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	%	95			70-130	Pass	
TRH C10-C14	%	117			70-130	Pass	
Naphthalene	%	125			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10	%	92			70-130	Pass	
TRH >C10-C16	%	114			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	104			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	100			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	90			70-130	Pass	
Benz(a)anthracene	%	81			70-130	Pass	
Benzo(a)pyrene	%	74			70-130	Pass	
Benzo(b&j)fluoranthene	%	74			70-130	Pass	
Benzo(g.h.i)perylene	%	91			70-130	Pass	
Benzo(k)fluoranthene	%	85			70-130	Pass	
Chrysene	%	90			70-130	Pass	
Dibenz(a.h)anthracene	%	81			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	99			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	70			70-130	Pass	
Naphthalene	%	102			70-130	Pass	
Phenanthrene	%	99			70-130	Pass	
Pyrene	%	107			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	99			80-120	Pass	
Cadmium (filtered)	%	94			80-120	Pass	
Chromium (filtered)	%	111			80-120	Pass	
Copper (filtered)	%	115			80-120	Pass	
Lead (filtered)	%	114			80-120	Pass	
Mercury (filtered)	%	107			80-120	Pass	
Nickel (filtered)	%	107			80-120	Pass	
Zinc (filtered)	%	104			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	S22-Fe11990	NCP	%	91			70-130	Pass	
TRH C10-C14	S22-Fe13646	NCP	%	85			70-130	Pass	
Naphthalene	S22-Fe11990	NCP	%	124			70-130	Pass	
TRH C6-C10	S22-Fe11990	NCP	%	86			70-130	Pass	
TRH >C10-C16	S22-Fe13646	NCP	%	84			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Fe11990	NCP	%	96			70-130	Pass	
Toluene	S22-Fe11990	NCP	%	101			70-130	Pass	
Ethylbenzene	S22-Fe11990	NCP	%	102			70-130	Pass	
m&p-Xylenes	S22-Fe11990	NCP	%	102			70-130	Pass	
o-Xylene	S22-Fe11990	NCP	%	100			70-130	Pass	
Xylenes - Total*	S22-Fe11990	NCP	%	102			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S22-Ja21849	NCP	%	85			75-125	Pass	
Cadmium (filtered)	S22-Ja21849	NCP	%	81			75-125	Pass	
Chromium (filtered)	S22-Ja21849	NCP	%	92			75-125	Pass	
Copper (filtered)	S22-Ja21849	NCP	%	95			75-125	Pass	
Lead (filtered)	S22-Ja21849	NCP	%	93			75-125	Pass	
Mercury (filtered)	S22-Ja21849	NCP	%	96			75-125	Pass	
Nickel (filtered)	S22-Ja21849	NCP	%	92			75-125	Pass	
Zinc (filtered)	S22-Ja21849	NCP	%	87			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	S22-Fe11989	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S22-Fe13654	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S22-Fe13654	NCP	mg/L	0.3	0.3	7.0	30%	Pass	
TRH C29-C36	S22-Fe13654	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Naphthalene	S22-Fe11989	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S22-Fe11989	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S22-Fe13654	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S22-Fe13654	NCP	mg/L	0.3	0.2	18	30%	Pass	
TRH >C34-C40	S22-Fe13654	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Fe11989	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S22-Fe11989	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S22-Fe11989	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S22-Fe11989	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S22-Fe11989	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S22-Fe11989	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S22-Ja21847	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S22-Ja21847	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S22-Ja21847	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S22-Ja21847	NCP	mg/L	0.003	0.004	14	30%	Pass	
Lead (filtered)	S22-Ja21847	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S22-Ja21847	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S22-Ja21847	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	S22-Ja21847	NCP	mg/L	0.006	0.005	13	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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eurofins | Environment Testing

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IANZ # 1327

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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Epic Environmental Pty Ltd (NSW)
Contact name:	Morgan Singleton-Fookes
Project name:	SMW-CTP-NORTH STRATHFIELD
Project ID:	SC210090.01
Turnaround time:	5 Day
Date/Time received	Feb 8, 2022 2:47 PM
Eurofins reference	861533

Sample Information

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

John Nguyen on phone : or by email: JohnNguyen@eurofins.com

Results will be delivered electronically via email to Morgan Singleton-Fookes - msingleton-fookes@epicenvironmental.com.au.

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

epic

Chain of Custody Record

Project No.:	[illegible]	Lab:	Envirolab
Project/Site:	SMW - CTP - North Strathfield	Lab Quote No:	
Project Manager:	Morgan Singleton-Fookes (msingleton-fookes@epicenvironmental.com.au)	Lab Batch No:	
Sampled By:	[illegible] (@epicenvironmental.com.au)	Turnaround time:	Standard
Phone:	[illegible]	Sample Disposal After:	

LAB ID	SAMPLE ID	DATE	MATRIX
	✓ [illegible] 1	2/02/2022	W
	✓ [illegible] 2	2/02/2022	W
	✓ [illegible] 3	2/02/2022	W
	✓ [illegible] –	2/02/2022	W
	✓ [illegible] 4	2/02/2022	W
	✓ [illegible] 5	2/02/2022	W
NR	✗ [illegible]	2/02/2022	W

CONTAINER TYPE & PRESERVATIVE: Soil / Solid; Water / Liquid

Analysis: TRH, BTEX; Metals; TRH, BTEX, Metals, PAH; OCP, OPP; …

TOTALS: 2 | 1 | 4 | 3 | 3 | 3 | 3

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 288232

Date Received: 3/2/2022

Time Received: 1515

Received by:

Temp: Cool/Ambient 11°C

Cooling: Ice/Icepack

Security: Intact/Broken/None

Relinquished By: ELS Sydney Closeman — 08/02/22 1100

Received By: Arey — 7/2/2022 1515

Custody Seals Intact Y N

Samples Received Chilled Y N

Method of Shipment

Email msingleton-fookes@epicenvironmental.com.au

cc

cc epicenvironmental@esdat.com.au

cc labs@epicenvironmental.com.au

Epic Environmental Pty Ltd ABN 54 169 579 275
Level [illegible] North Quay, Brisbane, 4000 / Suite 4.01, 55 Miller Street, Pyrmont, NSW, 2009

COC rec'd 7/2/2022 1540 10.6°C

8/02 2:47PM 861533 Camera Tony

Updated COC 02/02 @ 17:5

287841 Updated COC
02/02/2022 11:30

Epic Environmental

Chain of Custody Record

Project No:	SC210090.01	Lab:	Envirolab
Project/Site:	SMW-CTP - North Strathfield	Lab Quote No:	
Project Manager:	MST	Lab Batch No:	
Sampled By:	SP	Date Results Required:	Standard
Phone:	0417 217 179	Sample Disposal After:	
Page:	1 of 1		
Number of Eskies:	1		

LAB ID	SAMPLE ID	DATE	MATRIX	CONTAINER TYPE & PRESERVATIVE: Soil / Solid: 150-250ml Glass Jar	250ml Plastic Jar	Plastic bag	Water / Liquid: 2x 40ml Amber Vial	500-500ml Amber Bottle	125ml Metals	125ml Nutrients	250-500ml Plastic (Unpreserved)	60-250ml Plastic (7FAS)	Other	ANALYSIS REQUIRED: Combo 3	Combo 3A	Metals PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS		HOLD
1	EPIC_NS_BH03_0-0.1	1/2/22	S	1	1	1									X					X	X		
2	EPIC_NS_BH03_0.5-0.6			1	1	1										X							
3	EPIC_NS_BH03_0.9-1.1			1	0	1										X							
4	EPIC_NS_BH04_0.1-0.2			1	1	2										X							
5	EPIC_NS_BH04_0.5-0.6			1	0	2																	
6	EPIC_NS_BH04_0.9-1			1	0	2																	
7	EPIC_NS_BH05_0.1-0.2					1								X									
8	EPIC_NS_BH05_0.9-1.0			1	0	1									X								
9	EPIC_NS_BH06_0-0.1			1	0	1								X			X	X					
10	EPIC_NS_BH06_0.4-1.0			1	0	1										X							
11	EPIC_NS_BH11_0-0.1			1	0	1											X						
12	EPIC_NS_BH11_0.6-0.7			1	1	1										X							
13	EPIC_NS_BH11_0.9-1.0			1	0	1										X							
14	EPIC_NS_BH06_0-0.1			1	1	1										X							
15	EPIC_NS_BH09_0-0.1			1	1	1											X	X	X	X	X		
16	EPIC_NS_BH09_0.6-0.7			1	0	1																	
17	EPIC_NS_BH09_0.9-1.0			1	0	1											X						
	[redacted]			1	0	0																	
18	EPIC_NS_QC01			1	0	0								X									
19	EPIC_NS_QC02			1	0	0								X									
20	EPIC_NS_BH02_0.0-0.1			1	0	1									X								
			TOTALS																				

Relinquished By: Jingjia Pan — SIGNATURE — DATE 2/2/22 — NAME

Received By: NAME — SIGNATURE — DATE

Custody Seals Intact Y N
Samples Received Chilled Y N
Method of Shipment

NOTES:

Epic Environmental Pty Ltd ABN 56 169 573 275
Level 6, 193 North Quay, Brisbane
web
email

(21) Epic_NS_TS01
(22) Epic_NS_TB01
} Analyse for vTRH, BTEX please.

*Please send QC02 to Eurofins for analysis

Relinquished by
ELJ JMD AB AM
5/2/22, 1355

287841

10.4°C
Cameron Tonoy
3/02 2:47PM
861533

Epic Environmental Pty Ltd (NSW)
Level 17, 95 North Quay
Brisbane
QLD 4000

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: **Morgan Singleton-Fookes**

Report **864291-S**
Project name SMW - CTP - NORTH STRATHFIELD
Project ID SC210090.01
Received Date Feb 17, 2022

Client Sample ID			**EPIC_NS_QC04**	**EPIC_NS_QC06**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S22-Fe34710**	**S22-Fe34711**
Date Sampled			**Feb 04, 2022**	**Feb 04, 2022**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	101	131
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			EPIC_NS_QC04	EPIC_NS_QC06
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S22-Fe34710**	**S22-Fe34711**
Date Sampled			**Feb 04, 2022**	**Feb 04, 2022**
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	119	115
p-Terphenyl-d14 (surr.)	1	%	110	97
Heavy Metals				
Arsenic	2	mg/kg	14	11
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	41	10
Copper	5	mg/kg	< 5	31
Lead	5	mg/kg	19	34
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.4
Zinc	5	mg/kg	5.2	58
% Moisture	1	%	20	11

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	Feb 17, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 17, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 17, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Feb 17, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 17, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Feb 17, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Feb 17, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

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IANZ # 1290

Company Name: Epic Environmental Pty Ltd (NSW)
Address: Level 17, 95 North Quay
Brisbane
QLD 4000

Project Name: SMW - CTP - NORTH STRATHFIELD
Project ID: SC210090.01

Order No.:
Report #: 864291
Phone:
Fax:

Received: Feb 17, 2022 3:47 PM
Due: Feb 18, 2022
Priority: Overnight
Contact Name: Morgan Singleton-Fookes

Eurofins Analytical Services Manager : John Nguyen

Sample Detail						Moisture Set	Eurofins Suite B7
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217						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	EPIC_NS_QC 04	Feb 04, 2022		Soil	S22-Fe34710	X	X
2	EPIC_NS_QC 06	Feb 04, 2022		Soil	S22-Fe34711	X	X
Test Counts						2	2

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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	84			70-130	Pass	
Naphthalene	%	110			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10	%	92			70-130	Pass	
TRH >C10-C16	%	82			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	86			70-130	Pass	
Toluene	%	93			70-130	Pass	
Ethylbenzene	%	87			70-130	Pass	
m&p-Xylenes	%	87			70-130	Pass	
o-Xylene	%	81			70-130	Pass	
Xylenes - Total*	%	85			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	112			70-130	Pass	
Acenaphthylene	%	115			70-130	Pass	
Anthracene	%	107			70-130	Pass	
Benz(a)anthracene	%	114			70-130	Pass	
Benzo(a)pyrene	%	117			70-130	Pass	
Benzo(b&j)fluoranthene	%	120			70-130	Pass	
Benzo(g.h.i)perylene	%	104			70-130	Pass	
Benzo(k)fluoranthene	%	111			70-130	Pass	
Chrysene	%	112			70-130	Pass	
Dibenz(a.h)anthracene	%	115			70-130	Pass	
Fluoranthene	%	116			70-130	Pass	
Fluorene	%	122			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	115			70-130	Pass	
Naphthalene	%	117			70-130	Pass	
Phenanthrene	%	125			70-130	Pass	
Pyrene	%	119			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	112			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	101			80-120	Pass	
Copper	%	101			80-120	Pass	
Lead	%	120			80-120	Pass	
Mercury	%	99			80-120	Pass	
Nickel	%	119			80-120	Pass	
Zinc	%	114			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	S22-Fe28393	NCP	%	82			70-130	Pass	
TRH C10-C14	S22-Fe33055	NCP	%	83			70-130	Pass	
Naphthalene	S22-Fe28393	NCP	%	114			70-130	Pass	
TRH C6-C10	S22-Fe28393	NCP	%	85			70-130	Pass	
TRH >C10-C16	S22-Fe33055	NCP	%	87			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Fe28393	NCP	%	85			70-130	Pass	
Toluene	S22-Fe28393	NCP	%	84			70-130	Pass	
Ethylbenzene	S22-Fe28393	NCP	%	77			70-130	Pass	
m&p-Xylenes	S22-Fe28393	NCP	%	77			70-130	Pass	
o-Xylene	S22-Fe28393	NCP	%	73			70-130	Pass	
Xylenes - Total*	S22-Fe28393	NCP	%	76			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Fe24146	NCP	%	102			70-130	Pass	
Acenaphthylene	S22-Fe24146	NCP	%	101			70-130	Pass	
Anthracene	S22-Fe24146	NCP	%	87			70-130	Pass	
Benz(a)anthracene	S22-Fe24146	NCP	%	84			70-130	Pass	
Benzo(a)pyrene	S22-Fe24146	NCP	%	79			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Fe24146	NCP	%	94			70-130	Pass	
Benzo(g.h.i)perylene	S22-Fe24146	NCP	%	79			70-130	Pass	
Benzo(k)fluoranthene	S22-Fe24146	NCP	%	89			70-130	Pass	
Chrysene	S22-Fe24146	NCP	%	99			70-130	Pass	
Dibenz(a.h)anthracene	S22-Fe24146	NCP	%	70			70-130	Pass	
Fluoranthene	S22-Fe24146	NCP	%	92			70-130	Pass	
Fluorene	S22-Fe24146	NCP	%	112			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Fe24146	NCP	%	87			70-130	Pass	
Naphthalene	S22-Fe24146	NCP	%	114			70-130	Pass	
Phenanthrene	S22-Fe24146	NCP	%	110			70-130	Pass	
Pyrene	S22-Fe24146	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	W22-Fe28724	NCP	%	98			75-125	Pass	
Cadmium	W22-Fe28724	NCP	%	91			75-125	Pass	
Chromium	W22-Fe28724	NCP	%	87			75-125	Pass	
Copper	W22-Fe28724	NCP	%	94			75-125	Pass	
Lead	S22-Fe33948	NCP	%	97			75-125	Pass	
Mercury	W22-Fe28724	NCP	%	89			75-125	Pass	
Nickel	W22-Fe28724	NCP	%	112			75-125	Pass	
Zinc	S22-Fe33948	NCP	%	94			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	S22-Fe28392	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Fe34210	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Fe34210	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Fe34210	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Fe28392	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Fe28392	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Fe34210	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Fe34210	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Fe34210	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Fe28392	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Fe28392	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Fe28392	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Fe28392	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Fe28392	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Fe28392	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Fe33098	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	W22-Fe29727	NCP	mg/kg	7.0	11	42	30%	Fail	Q15
Cadmium	W22-Fe29727	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	W22-Fe29727	NCP	mg/kg	15	19	28	30%	Pass	
Copper	W22-Fe29727	NCP	mg/kg	19	28	38	30%	Fail	Q15
Lead	W22-Fe29727	NCP	mg/kg	23	26	14	30%	Pass	
Mercury	W22-Fe29727	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	W22-Fe29727	NCP	mg/kg	7.2	8.2	12	30%	Pass	
Zinc	W22-Fe29727	NCP	mg/kg	50	59	18	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Fe34210	NCP	%	11	11	2.0	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

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

Authorised by:

John Nguyen	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Roopesh Rangarajan	Senior Analyst-Volatile (NSW)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Epic Environmental Pty Ltd (NSW)
Contact name:	Morgan Singleton-Fookes
Project name:	SMW - CTP - NORTH STRATHFIELD
Project ID:	SC210090.01
Turnaround time:	Overnight
Date/Time received	Feb 17, 2022 3:47 PM
Eurofins reference	864291

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✗	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

John Nguyen on phone : or by email: JohnNguyen@eurofins.com

Results will be delivered electronically via email to Morgan Singleton-Fookes - msingleton-fookes@epicenvironmental.com.au.

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

epic ENVIRONMENTAL

Chain of Custody Record

Project No:	SC210090.01
Project/Site:	SMW - CTP - North Strathfield
Sampled By:	Jayden Pan
Phone / Email:	Jpan@epicenvironmental.com.au msingleton-fookes@epicenvironmental.com.au
Results to:	labs@epicenvironmental.com.au
Page 1 of 3	
Number of Eskies: 3	

Lab:	Envirolab
Lab Quote No:	
Lab Batch No:	
Date Results Required:	Standard TAT
Sample Disposal After:	

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	CONTAINER TYPE & PRESERVATIVE: Glass Jar	Plastic Jar	Plastic bag	Large plastic bag					VTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD

epic ENVIRONMENTAL

Chain of Custody Record

Project No: SC210090.01
Project/Site: SMW - CTP - North Strathfield
Sampled By: Jayden Pan
Phone / Email: Jpan@epicenvironmental.com.au msingleton-fookes@epicenvironmental.com.au
Results to: labs@epicenvironmental.com.au
Page 3 of 3
Number of Eskies: 3

Lab: Envirolab
Lab Quote No:
Lab Batch No:
Date Results Required: Standard TAT
Sample Disposal After:

CONTAINER TYPE & PRESERVATIVE

LAB ID	Sample ID	Depth (m)	Date/Time	Matrix	Glass Jar	Plastic Jar	Plastic bag	Large plastic bag	metals bottle	Glass Vial			VTRH, BTEX	Metals	Combo 3	Combo 3a	Metals, PAH	OCC, OCP	PCB	Phenols	VOCs	PFAS	HOLD
42	EPIC_NS_RB02		03/02/2022	W					1					x									
43	EPIC_NS_RB03		04/02/2022	W					1					x									
44	EPIC_NS_RB04		04/02/2022	W					1														x
45	EPIC_NS_QC03		04/02/2022	S	1										x								
Please send to Eurofins	EPIC_NS_QC04		04/02/2022	S	1										x								
46	EPIC_NS_QC05		04/02/2022	S	1										x								
Please send to Eurofins	EPIC_NS_QC06		04/02/2022	S	1										x								
47	EPIC_NS_TB03		03/02/2022	S						1			x										
48	EPIC_NS_TB04		03/02/2022	S						1													x
49	EPIC_NS_TS03		04/02/2022	S						1			x										
50	EPIC_NS_TS04		04/02/2022	S						1													x
extra																							
S1	BH18 0-0.1																						
S2	BH? 0-0.1 4/2																						
				TOTALS	4				3	4			2	2	4	0	0	0	0			0	3

Relinquished By:
NAME: Sydney Chaseman
SIGNATURE: MK
DATE: 17/02/22

Received By: MK (Eurofins) 17/2
NAME
SIGNATURE
DATE: 3:47pm

Custody Seal's Intact: N
Samples Received Chilled: 13.3°C Y
Method of Shipment: courier N

NOTES: Analysis to come to email.

Epic Environmental Pty Ltd ABN 54 169 579 275
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email labs@epicenvironmental.com.au

288341 #864291

The Epic team provides a wide range of skills and experience on numerous environmental management issues, across a wide range of public, commercial and industrial projects. At Epic, we focus on the practical aspects of environmental planning, engineering and science, offering comprehensive services in:

- Strategic advice and project support;
- Contaminated site assessment, management and remediation;
- Asbestos assessment and advisory;
- Naturally Occurring Radiological Material assessment and management;
- Contaminated land auditing services (QLD –Contaminated Land Auditor; NSW – Contaminated Site Auditor);
- Statutory planning and impact assessment covering QLD, NSW and Commonwealth legislation;
- Environmental approvals and permitting – full array;
- Ecological (fauna, flora and habitat) site assessments;
- Site suitability assessments;
- Environmental offset assessments and development of management strategies;
- Waste auditing and management;
- Landfill design and management;
- Compliance and auditing;
- Erosion sediment control; and
- Hydrogeology.

CONTACT

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