

DEICORP PROJECTS SHOWGROUND PTY LTD



Detailed Site Investigation

Doran Drive Precinct, 2 Mandala Parade, Castle Hill NSW

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Executive Summary

Background

Deicorp Projects Showground Pty Ltd ('the client') engaged El Australia (El) to undertake a Detailed Site Investigation (DSI) for the property located at Doran Drive Precinct, 2 Mandala Parade, Castle Hill NSW ('the site') to allow redevelopment of the site.

It was understood that redevelopment of the site is a State Significant Development (SSD). The site (Doran Drive Precinct) is situated in the central portion of the Hills Showground Station Precinct development area, covering a total area of 7,969 m². At the time of this investigation the site was a vacant lot, cleared of all structures. The development includes construction of multi-storey, mixed use commercial and residential apartment buildings, overlying a common podium structure with six-levels of basement.

Objectives

The main objective of this investigation was to:

 Investigate the degree of any potential contamination by means of intrusive sampling and laboratory analysis, for relevant contaminants of concern.

A further objective, should site contamination be confirmed, was to make recommendations for the appropriate management of any contaminated soils and/or groundwater.

Key Findings

- The site was found to be a rectangular vacant block, secured by construction hoarding and security fencing. It was elevated above the surrounding land, which displayed a moderate downslope towards the southwest. The ground surface was covered by exposed fill materials, with limited vegetation present onsite. No visual evidence of gross contamination, UPSS or UST was observed on the site during the site inspection.
- A review of historical information indicated the site was used as rural residential, agricultural, vacant pastoral and public open space (playing fields) until the late 1980s. Since 2013, significant ground disturbance works (bulk earthworks and material storage) have been completed as a result of the Sydney Metro North West (SMNW) Project activities ('Metro Northwest Link'). The site was used for a holding and processing yard during that period, which included excavated water treatment basins, material/equipment storage and site sheds. During 2019, the current site configuration was established and cleared of all previous structures. The site surface was significantly filled and raised above the surrounding land.
- The site and surrounding lands were not listed on any of the EPA records reviewed.
- Soil sampling and analysis were conducted at 19 locations across the site.
 - The sub-surface layers observed comprised of fill materials (up to 4.0m depth) overlying natural clay and sandstone bedrock;
 - Laboratory results for all the soil samples collected reported concentrations below the most conservative human health and ecological based SILs;



- Laboratory results indicated that natural soils on site were non-saline. Soils were found to be slightly acidic (pH ranged from 4.6 to 6.1), with the exception of soil sample at BH3M reported pH at 9.4
- Four groundwater monitoring wells were installed on the site.
 - Standing Water Levels (SWL) were observed between 2.58 and 4.48 mBGL;
 - Groundwater was likely to flow hydraulically south-westerly towards Cattai Creek;
 - Concentrations of PAHs, BTEX, TRHs and VOCs were reported below the adopted criteria;
 - Concentrations of heavy metals were reported below the adopted freshwater criteria, with the exception of chromium, copper, lead, nickel and zinc. However, the detected concentrations are considered to be indicative of background conditions, rather than site specific impacts.
 - Therefore the identified groundwater concentrations are not considered to present a cause for human health and environmental concern.
- Based on the analytical results, the following preliminary classifications were provided (with reference to the EPA (2014) Waste Classification Guidelines):
 - The fill materials on the site were classified as General Solid Waste (Non-Putrescible);
 and
 - The underlying natural soils on the site were classified as *Virgin Excavated Natural Material* (VENM).

Based on the findings of this investigation, EI conclude that the site is suitable for the proposed mixed commercial and residential development provided the recommendations detailed in **Section 11** are implemented.



1. Introduction

1.1 Background and Purpose

Deicorp Projects Showground Pty Ltd ('the client') engaged EI Australia (EI) to undertake a Detailed Site Investigation (DSI) of the land parcel located at Doran Drive Precinct, 2 Mandala Parade, Castle Hill NSW ('the site') to allow redevelopment of the site.

The site is located within the Local Government Area (LGA) of The Hills Shire Council, as shown in **Figure 1** (**Appendix A**), and covers a total area of 7,969 m², as shown on the survey plan attached in **Appendix C**. The site can be further identified as Lot 55 in Deposited Plan (DP) 1253217.

El understands that redevelopment of the site is a State Significant Development (SSD). The site (Doran Drive Precinct) is situated in the central portion of the Hills Showground Station Precinct development area, with Hills Showground Metro Station to the south, Hills Showground Precinct East and Hills Showground Precinct West to the east and west, respectively. At the time of this investigation the site was a vacant rectangular block, cleared of all structures.

1.2 Proposed Development

Based on the supplied plans (**Appendix C**), the proposed development would include construction of multi-storey, mixed use commercial and residential apartment buildings, overlying a common podium structure with six-levels of basement car park.

The basements were to be constructed to the site boundaries, with the lowest basement level (B06) will require a Finished Floor Level (FFL) of 70.20m Australian Height Datum (AHD). It is understood that a Bulk Excavation Level (BEL) of RL 69.10mAHD will be required for the lowest basement level, which includes allowance for the construction of the basement slab. To achieve the BEL, excavation depths of 19 m Below Existing Ground Level (mBGL) at the Doran Drive end of the site to 26.6 mBGL at the Andalusian Way end of the site have been estimated. Locally deeper excavations may be required for footings, services trenches, crane pads and lift overrun pits.

1.3 Regulatory Framework

The following regulatory framework and guidelines were considered during the preparation of this report:

- Contaminated Land Management Act 1997 (the CLM Act);
- Protection of the Environment Operations Act 1997 (the POEO Act);
- State Environmental Planning Policy 55 (SEPP 55) Remediation of Land;
- State Environmental Planning Policy (State and Regional Development) 2011;
- EPA (1995) Sampling Design Guidelines;
- EPA (2017) Guidelines for the NSW Site Auditor Scheme;
- EPA (2020) Consultants Reporting on Contaminated Land: Contaminated Land Guidelines;
- NEPC (2013) Schedule B(2) Guideline on Site Characterisation, in Amended National Environmental Protection (Assessment of Site Contamination) Measure 1999;
- NEPC (2013) Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater,



- Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2-1997);
- The Hills Local Environmental Plan 2019; and
- The Hills Development Control Plan (DCP) 2012.

1.4 Project Objectives

The main objective of this investigation was therefore to:

 Investigate the degree of any potential contamination by means of intrusive sampling and laboratory analysis, for relevant contaminants of concern.

A further objective, should site contamination be confirmed, was to make recommendations for the appropriate management of any contaminated soils and/or groundwater.

1.5 Scope of Works

In order to achieve the above objectives, the following scope of works was completed:

- Preparation of a Work, Health, Safety & Environment Plan;
- A review of existing underground services on site ('Dial-before-you-dig' DBYD) and carry out an underground search for buried services using elector-magnetic equipment;
- A review of relevant geological, hydrogeological and soil landscape maps for the project area;
- A search of groundwater bore records within close vicinity to the site;
- A review of previous environmental reports;
- A site inspection;
- Excavation of test pits and drilling of boreholes at 19 locations distributed in a triangular grid pattern across accessible areas of the site;
 - Drilling of boreholes to assess salinity at 3 locations to approximately 1m below the proposed bulk excavation (or prior refusal on bedrock);
- Installation of four groundwater monitoring wells, both up-gradient and down-gradient of the proposed development area. Groundwater monitoring wells would be constructed to standard environmental protocols to investigate potential groundwater contamination;
- Multiple level soil sampling within fill and natural soils and one round of groundwater sampling from the constructed groundwater monitoring wells;
- Laboratory analysis of selected soil and groundwater samples for relevant analytical parameters as determined from the site history survey and field observations during the investigation programme; and
- Data interpretation and reporting.

This DSI report has been prepared in accordance with the EPA (2020) to document desk study findings, the conceptual site model, data quality objectives, investigation methodologies and results. The report also provides a record of observations made during the detailed site walkover inspection, borehole and test pit logs, and a discussion of laboratory analytical results in regards to potential risks to human health, the environment and the aesthetic uses of the land.



2. Site Description

2.1 Property Identification, Location, and Physical Setting

The site identification details and associated information are presented in **Table 2-1**, while the site locality is shown in **Figure 1 (Appendix A)**.

Table 2-1 Site Identification

Attribute	Description
Street Address	Doran Drive Precinct, 2 Mandala Parade, Castle Hill NSW
Location Description	10 km north-west of Parramatta CBD, bound by De Clambe Drive to the north, Andalusian Way to the east, Mandala Parade to the south and Doran Drive to the west.
Coordinates	Northeast corner of site: GDA2020-MGA56 Easting: 313544.048; Northing: 6266325.101. (Source: http://maps.six.nsw.gov.au)
Site Area	7,969 m ²
Lot and Deposited Plan (DP)	Lot 55 in DP 1253217
State Survey Marks	Two State Survey (SS) marks are situated within close proximity to the site: SS62672N: at the roundabout of Carrington Road and Andalusian Way (approximately 63m southeast); and SS180257: on Carrington Road (approximately 83m southwest). (Source: http://maps.six.nsw.gov.au)
Local Government Authority	The Hills Shire Council
Parish	Castle Hill
County	Cumberland
Current Zoning	B2: Local Centre (The Hills Local Environmental Plan 2019)

2.2 Surrounding Land Use

The site is situated within the Hills Showground Station Precinct development area as described in **Table 2-2**. The sensitive receptors within close proximity of the site (approximately 250m) are also identified.



Table 2-2 Surrounding Land Uses

Direction	Land Use Description	Sensitive Receptors (& distance from site)
North	Castle Hill ShowgroundResidential properties	 Residential (approximately 250m north)
South	 Hills Showground Metro Station and associated station plaza Residential properties Carrington Preschool 	 Residential (approximately 70m south) Preschool (approximately 110m southwest)
East	 Hills Showground Precinct East, which consists of the former The Hills Shire Council administration building and associated parking Residential properties 	 Residential (approximately 200m east)
West	 Hills Showground Precinct West, which consists of a commuter carpark and plaza Cattai Creek Commercial properties, including warehouse, car & motorcycle repair shops and restaurants. 	Cattai Creek (approximately 200m west)

2.3 Regional Setting

The local topography, regional hydrogeology, geology and soil landscape information are summarised in **Table 2-3**.

Table 2-3 Regional Setting

Attribute	Description
Topography	The site displays a moderate downslope towards the southwest, with site levels varying from 98.13m AHD in the north-eastern site corner to 90.63m AHD in the south-western site corner (Appendix C). The batters along the site boundaries have an average 1-1.5m drop towards the surrounding roads.
	Regionally, the area slopes south-westerly towards Cattai Creek.
Site Drainage	Site drainage is likely to be consistent with the general slope of the site. Any run off would be expected to flow into the new constructed stormwater pits on the site, which flows into the municipal stormwater system and then into Cattai Creek approximately 130m southwest of the site.
Regional Geology	The Department of Mineral Resources <i>Penrith 1:100,000 Geological Series Sheet 9030</i> indicates the site is underlain by Hawkesbury Sandstone (<i>Rh</i>), consisting of medium to very coarse-grained quartz sandstone, minor laminated mudstone and siltstone lenses.
	However, the eastern end of the site is close to a boundary with Ashfield Shale (Rwa), consisting of dark-grey to black claystone-siltstone and fine sandstone-siltstone laminite. The thin Mittagong Formation may or may not be present between the Ashfield Sahel and Hawkesbury Sandstone.
Soil Landscapes	The Soil Conservation Service of NSW Soil Landscapes of the Penrith 1:100,000 Sheet (Bannerman SM and Hazelton PA, 1990) indicates that the eastern portion of the site overlies an erosional Glenorie (gn) soil landscape, characterised by undulating to rolling low hills on Wianamatta Group shales, while the western portion of the site overlies a colluvial Hawkesbury (ha) soil landscape, characterised by rugged, rolling to very steep hills on Hawkesbury Sandstone.



Attribute	Description
Acid Sulfate Soil Risk	With reference to the <i>Prospect/Parramatta River Acid Sulfate Soil Risk Map</i> (1:25,000 scale; Murphy, 1997) and <i>The Hills Local Environmental Plan 2019</i> the site is not situated in an ASS classed area. As such, ASS is unlikely to be encountered during development works at the site.
	The contamination report previously prepared for the site (JBS&G, 2019) also concluded that no further management for the potential presence of ASS is required during future ground disturbance works.
Salinity Potential	Based on the DIPNR (2003) Salinity Potential in Western Sydney Map 2002, the site is situated within an area of very low to moderate salinity potential. EI conducted a salinity assessment during this investigation, as discussed in Section 8 .
Nearest Surface Water Feature	Cattai Creek, located approximately 130m southwest of the site.
Groundwater Flow Direction	Interred to flow south-westerly towards Cattai Creek.

2.4 Groundwater Bore Records and Groundwater Use

An online search of groundwater bores registered with WaterNSW was conducted by EI on 31 July 2020 (Ref. https://realtimedata.waternsw.com.au/water.stm). There was one registered bore within a 500 m radius of the site, as summarised in **Table 2-4**. A groundwater bore location plan and detailed information are presented in **Appendix D**.

Table 2-4 Summary of Proximate Registered Groundwater Bores

Bore No.	Distance & Direction	Date Drilled	Drilled Depth (m)	SWL(m BGL) / Salinity	Bore Purpose
GW107601	150m northwest	24.10.2002	35.34	-/-	Monitoring bore

Contamination report prepared by JBS&G (2019) also identified one groundwater bore (GW100981) approximately 550m northeast from the site, which was authorized for domestic use. The water table (as indicated by standing water levels, SWL) was recorded at 8.0m BGL.

Therefore it is anticipated that groundwater is present at a shallow to moderate depth below the site.

2.5 Site Inspection

Site observations were recorded during an inspection of the site on 8 July 2020. These are summarised below. Site photographs taken during the inspection are presented in **Appendix E**.

- The site was a rectangular vacant block, secured by construction hoarding and security fencing (Photograph 6). It was situated at the north side of the Hills Showground Metro Station.
- The site was found to be elevated above the surrounding land, which displayed a moderate downslope towards the southwest. Constructed batters were present along the site boundaries, which elevated the site at up to approximately 1-1.5m above the surrounding roads (Photographs 3 and 5).
- The whole site was vacant, cleared of all structures. The ground surface was covered by exposed fill materials (**Photographs 1, 2** and **4**).
- Limited vegetation was present on the site. The vegetation did not appear stressed.



- Constructed stormwater pits were present along the site boundaries (Photograph 5), collecting surface runoff to the municipal stormwater system.
- No unusual odours were detected during the inspection. No visual signs of contamination (i.e. cement sheet fragments) were identified on site surfaces.
- No evidence of an underground petroleum storage system (UPSS), or an underground storage tank (UST), was observed on the site.
- Surrounding areas consisted of Castle Hill Showground to the north, Hills Showground Precinct East and Hills Showground Precinct West to the east and west, and Hills Showground Metro Station to the south. Residential properties were mainly present to the south, east and north of the site, while commercial properties were mainly to the west of the site.
- There was no NSW Fire and Rescue Station (or Training College) in the vicinity (<100m) of the site.



3. Previous Investigations

El was provided with previous investigation reports carried out within portions of the Hills Showground Station Precinct development area, including:

- JBS&G (2009) Phase 1 and 2 Environmental Site Assessment,
- JBS&G (2013) Contamination Due Diligence Advice, Former Hills Shire Depot, Carrington Road, Castle Hill, NSW, Report Ref. 42829/54994 (Rev1), dated 26 August 2013;
- Arup (2015) Showground Precinct Desktop Contamination Review, dated 1 September 2015;
- Douglas Partners (2016) Report on UST Validation Sydney Metro Northwest, Showground Station, Carrington Road, Castle Hill NSW, Ref. 73315.03.R.001.Rev0.UST Validation, dated 6 May 2016; and
- JBS&G (2019) Soil and Contamination Report, Ref. 54813/125497 (Rev1), dated 29 October 2019.

The JBS&G (2009 and 2013), Arup (2015) and DP (2016) investigations referenced above were conducted at the former Hills Council Depot (now Hills Showground Precinct West and the newly constructed commuter car park to the west of the site).

The JBS&G (2019) report identified that significant ground disturbance occurred at the site (Doran Drive Precinct) as a results of Sydney Metro North West (SMNW) Project activities ('Metro Northwest Link') and concluded that further contamination assessment was required. A summary of works and key findings from this report is outlined in **Table 3-1**.

Table 3-1 Summary of Previous Investigation Works and Findings

Assessment Details

Project Tasks and Findings

Soil and Contamination Report (JBS&G, 2019)

Objectives

- Collate and review available data, including previous investigations and supplement this with current information to identify areas of potential environmental concern (AECs) and associated contaminants of potential concern (COPCs) as may be present at the site;
- Review and document regional geological, hydrogeological, topographical and services infrastructure information to identify site media and potential contaminant transportation pathways at the site;
- Identify potential data gaps across the site and assess the potential for near surface contamination as a result of the SMNW works;
- Address the key contamination issues in the SEARs and the requirements of SEPP 55 to demonstrate the suitability of the site for development, or provide recommendations that will enable the site to be considered suitable prior to commencement of future use(s); and
- Develop and document a preliminary conceptual site model (CSM) of contamination to facilitate comments on potential issues that may require further consideration, including assessment, management and/or remediation to make the site suitable for its proposed uses.

Scope of Works

The site comprised of three development precincts, including the Hills Showground Precinct West, Doran Drive Precinct and Hills Showground Precinct East. The scope of works included:



Assessment Details

Project Tasks and Findings

- A review of available historical site use, background information and previous investigations to identify potential areas of environmental and chemical concern;
- Review and collation of available regional and site specific information in relation to geology, hydrogeology, etc. including previous environmental and geotechnical site investigation data to confirm site conditions and the presence of potential AECs;
- Development of a site-wide CSM based on the available information specific to the site: and
- Preparation of a preliminary environmental site assessment report in general accordance with relevant EPA Guidelines.

Site History

Review of available site history indicated the majority of the site was historically utilised as rural residential and agricultural (orchards) land prior to being acquired by the Baulkham Hills Shire Council between the 1960s and 1970s. Until approximately 2013, the site was used for a combination of public open space (playing fields) prior to use for commercial (office spaces and performing arts centre) and industrial (use as a Council Depot) activities. The site was transferred Transport for NSW in 2013 following which the central and western portions have undergone redevelopment works associated with the construction of the SMNW Project train tunnels and station infrastructure.

Conclusions and Recommendations

- Prior to the commencement of the SMNW Project activities, the site comprised three main areas: the Hills Shire Council Chambers and Administration building and surrounds (Hills Showground Precinct East); the former performing arts centre and associated car parking area (central portion including Showground Station and Doran Drive Precinct); and the Council Works Depot (Hills Showground Precinct West and constructed carpark infrastructure).
- Historical site investigation reports available for assessment were limited to the former Council Works Depot footprint. These investigations identified the presence of small scale soil and groundwater contamination and underground fuel infrastructure (considered significant point sources of potential contamination), prior to the commencement of the SMNW Project activities. Records obtained from SafeWork NSW and validation documentation have indicated removal of the majority of the identified fuel infrastructure. Notwithstanding, in the absence of further validation documentation and/or a RAP as may have been prepared as required by Project Approval consent conditions, there remains uncertainty on the fate of previously identified asbestos impacts and the current contamination status of this portion of this site.
- In addition, significant ground disturbance works have been completed within the central portion of the site (Doran Drive Precinct) during the SMNW Project activities. This site portion is currently surfaced with exposed fill material. Subject to the availability of validation documentation confirming the status of ground conditions in this portion of the site, there is also a remaining data gap as to the current characterisation of this site portion given the potentially contaminating activities that have occurred within this area.
- Within the eastern portion of the site, occupied by the former Council Chambers and Administration building, the potential for site contamination has been identified as relatively low, being associated with historical agricultural/open space management, the historical use of hazardous building materials (asbestos and lead paint) and the potential presence of limited profile of fill material of unknown origin. However, the absence of existing characterisation data, again remains an open data gap with regard to drawing conclusions on the suitability of the site for the proposed landuses.
- With consideration of the above, it is considered that the site can be made suitable



Assessment Details	Project Tasks and Findings
	for the proposed land uses, subject to implementation of an appropriate staged data gap contamination assessment (that may include verification reviews of SMNW stage validation reports) and appropriate management of any small scale remaining contamination issues in accordance with NSW EPA guidance as appropriate prior to commencement of future final construction activities.
	 Review of acid sulfate soil (ASS) conditions identified there is no appreciable risk of ASS presence within natural residual soils at the site given the formation environment, and therefore no future management for the potential presence of ASS is required during future ground disturbance works.



4. Site History and Searches

4.1 Land Titles Information / Historical Aerial Photography Review

A historical title and aerial photography review of the Hills Showground Station Precinct development area was carried out by JBS&G (2019) as summarised in **Section 3**. A summary of the information obtained from the historical aerial photographs in relation to the history of the site is presented in **Table 4-1** below.

Table 4-1 Summary of Aerial Photograph

Table 4-1	Summary of Aerial Photograph	
Aerial Photograph	Site Description	Land Use
1930	The site appeared to consist of densely timbered vegetation, rural residential properties and agricultural land. Surrounding areas appeared to be used for similar rural residential / agricultural purposes, with orchard groves noted to the east, south and west of the site. The Castle Hill Showground was located to the north of the site.	Rural residential / agricultural
1950	The site was largely cleared of timbered vegetation. The majority of the site appeared to be covered by grass. Previous rural residential structures remained unchanged. Surrounding areas were also largely cleared of vegetation and orchards. A series of sheds were constructed to the west of the site.	Rural residential / vacant
1961	The site appeared to be unchanged (consistent with the 1950 image). Surrounding areas were largely unchanged, with the exception of some scattered timber and/or waste materials noted to the east of the site.	Rural residential / vacant
1970	Previous rural residential properties had been demolished. The land appeared to be largely vacant with a turfed football field constructed in the eastern portion of the site. Surrounding areas to the east was also part of the new playing field. More stockpiled timber/waste materials were noted to the east of the site. More sheds were constructed within the Castle Hill Showground (north of the site).	Vacant / part of the playing field
1986	The site was largely vacant. The playing field had been removed from the site and replaced by an oval sports track. The south-western corner of the site appeared to be used for car parking. Surrounding areas appeared to be undergoing redevelopment. Doran Drive had been constructed to the west of the site (forming the western site boundary). Beyond was the Council Depot, comprising two warehouse structures and associated car parking at grade. The Council Chambers had been constructed to the east of the site (consistent with the current structures). More residential properties were constructed to the south, east and north of the site, while commercial/industrial warehouses were constructed to the west of the site.	Vacant / car parking
1994	A large square-shaped building was constructed in the eastern portion of the site and a L-shaped building was present in the north-western site corner. The reminder of the site consisted of handstand pavements and landscaping areas. Surrounding areas were largely unchanged. The current metro station area (south of the site) appeared to be part of the car parking and landscaping area.	Commercial (performing arts centre)



Aerial	Site Description	Land Use
2002, 2009, 2012	The site appeared to be unchanged. Surrounding areas were largely unchanged.	Commercial (performing arts centre)
2014	Previous site structures had been demolished. The site appeared to be redeveloped, as associated with initial SMNW Project works. Two large warehouse buildings were constructed in the western portion and eastern corner of the site and two constructed water treatment basins were present in the central portion of the site. An above ground storage tank (AST) (potentially water/concrete batching) was constructed in the north-eastern site corner. An elongated excavation had been formed adjacent to the southern site boundary (Carrington Road), as associated with the construction of	Construction storage yard
	underground railway infrastructure. The Council Depot area to the west of the site appeared to be utilised as a storage compound for adjacent SMNW redevelopment activities. Two water retention ponds were noted to the southwest and northwest of the site. The Council Chambers to the east of the site appeared to be unchanged.	
2015	A network of shafts was observed onsite which led to a storage yard/load out area where presumably excess spoil was being transported off-site. A series of cylindrical black plastic storage tanks and several tall sheet metal ASTs had been installed adjacent to the AST and water treatment basins, indicative of a water treatment plant. Further material/equipment storage was present within the Council Depot area.	Construction storage yard
2016	The network of shafts and the large warehouse (western portion) had been removed from the site, indicating bulk subsurface excavation of the Hills Showground Station had likely been completed. The series of plastic and sheet metal ASTs (water treatment plant) had also been removed. The single large AST and two water treatment basins remained onsite. The site appeared to be utilised as material/equipment storage yard. The shadowing in this image indicated that several ground levels occurred within the site during this period.	Construction storage yard
	Surrounding areas were largely unchanged, with the exception of former site structures had been demolished within the Council Depot area.	
2017	A significant increase in material storage had occurred onsite, with several large stockpiles of soil observed within the central portion of the site. The former Council Depot area was also utilised as an equipment holding and storage yard.	Construction storage yard
2018	Significant materials storage activities were in progress within the site. The commuter car park to the west of the site was undergoing construction. Construction of the Hills Showground Metro Station (built form) had begun, with the placement of concrete slab panels across the majority of the open excavation.	Construction storage yard
2019	The current site configuration had been established. The streets around the site had been constructed, sealed with hardstand pavement and lined with landscaped garden beds and vegetation. The site was cleared of all structures and filled to raise the level, with constructed batters noted along the site boundaries. Several minor stockpiles of soil/waste were noted on the ground surface.	Vacant



Aerial Photograph	Site Description	Land Use
	The construction of the Showground Metro Station (south of the site) and commuter carpark (west of the site) had been completed.	

In summary, key findings related to the site indicated that the site was historically used as rural residential, agricultural, vacant pastoral and public open space (playing fields) until the late 1980s. The site was then developed into a commercial property (the former performing arts centre) between the 1990s and 2010s. Since 2013, significant ground disturbance works (bulk earthworks and material storage) have been completed as a result of the SMNW Project activities. The site was used for a holding and processing yard, which included excavated water treatment basins, material/equipment storage and site sheds (shown in **Photograph 4-1** below). During 2019, the current site configuration was established. The water treatment basins were removed and the site surface was significantly filled and raised above the surrounding land, as shown in **Photograph 4-2** below.



Photograph 4-1: Aerial photograph of the site showing previous site structures during the SMNW Project works (central portion of the development area) (dated 24/12/2014, Google Earth)





Photograph 4-2: Aerial photograph of the site showing established site configuration and levelled surface (dated 07/04/2019, Nearmap)

4.2 EPA Online Records

Searches of public registers maintained by the EPA for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997* were conducted by EI for this DSI.

4.2.1 Record of Notices Under Section 58 of CLM Act 1997

An on-line search of the contaminated land public record was conducted on 31 July 2020. The contaminated land public record is a searchable database of:

- Orders made under Part 3 of the CLM Act 1997;
- Notices available to the public under Section 58 of the CLM Act 1997;
- Approved voluntary management proposals under the CLM Act 1997 that have not been fully carried out and where the approval of the EPA has not been revoked;
- Site audit statements provided to the EPA under Section 53B of the CLM Act 1997 that relate to significantly contaminated land;
- Where practicable, copies of anything formerly required to be part of the public record; and
- Actions taken by the EPA under Section 35 or 36 of the Environmentally Hazardous Chemicals Act 1985 (the EHC Act 1985).

The search confirmed that the site and surrounding lands within close proximity (≤250m) were not subject to any regulatory notices relevant to the above legislations.

4.2.2 List of NSW Contaminated Sites Notified to EPA

A search through the List of NSW Contaminated Sites Notified to the EPA under Section 60 of the CLM Act 1997 was conducted on 31 July 2020. This list is maintained by the EPA and



includes properties on which contamination has been identified, but not deemed to be impacted significantly enough to warrant regulation. The site and surrounding lands within close proximity (≤250m) had not been notified as contaminated to the EPA (i.e. were not included in the list).

4.2.3 POEO Public Register

A search of the *Protection of the Environment Operations Act 1997* public register was conducted on 31 July 2020. This public register contains records related to environmental protection licences, applications, notices, audits, pollution studies and reduction programs. The search confirmed that the site and surrounding lands within close proximity (≤250m) were not subject to any licensing agreements / notices / programs etc. relevant to this legislation.



5. Conceptual Site Model

5.1 Overview

In accordance with NEPC (2013) Schedule B2 – Guideline on Site Characterisation and to aid in the assessment of data collected for the site, EI developed a conceptual site model (CSM) that assessed plausible linkages between potential contamination sources, migration pathways, and receptors. The CSM provides a framework for the review of the reliability and useability of the data collected and to identify gaps in the existing site characterisation.

5.2 Subsurface Conditions

The sub-surface conditions across the site were expected to be a layer of fill, overlying natural clay and shale / sandstone bedrock. Groundwater was likely to be at a shallow to moderate depth below the site, flowing in a south-westerly direction towards Cattai Creek.

5.3 Potential Contamination Sources

On the basis of the DSI findings, potential contamination sources were as follows:

- Unknown type and concentration of contaminants within imported fill soils across the site;
- Hazardous building materials (including potential asbestos) present in the site soils as a result of historic demolitions;
- Historical pesticide use;
- Spills or leaks associated with former onsite storage of material/equipment;
- Former AST in the north-eastern site corner; and
- Former water treatment basins in the central portion of the site.

5.3.1 PFAS Assessment

EPA (2017) requires that PFAS are considered in assessing land contamination. A desktop survey of the probability for PFAS occurrence is provided in **Table 5-1**. This survey is based on guidelines from the *PFAS National Environmental Management Plan* (NEMP 2020). From this survey a decision can be made as to whether PFAS sampling of soil and groundwater is required. In this instance, the potential for PFAS to be present on-site was low and subsequently PFAS sampling / analysis of soil and water was unwarranted.

Table 5-1 PFAS Decision Tree

Preliminary Screening	Probability of Occurrence ¹
Is the past or present site activity listed in the NEMP (2020) ² as being an activity associated with PFAS contamination. If so list activity: N/A	L
Is the past or present off-site activity up-gradient or adjacent to the site listed in the NEMP (2020) ² as being an activity associated with PFAS contamination. If so list activity:	L
Did fire training involving the use of suppressants occur on-site between 1970 and 2010?	L
Did fire training occur up-gradient of or adjacent to the site between 1970 and 2010? ³	L



Preliminary Screening	Probability of Occurrence ¹
Have "fuel" fires ever occurred on-site between 1970 and 2010? e.g. ignition of fuel (solvent, petrol, diesel, kero) tanks?	L
Have PFAS been used in manufacturing or stored on-site ?4	L
Could PFAS have been imported to the site in fill materials from a site with activity listed in NEMP (2020)?	L
Could PFAS-contaminated groundwater or run-off have migrated on to the site?	L
Is the site or adjacent sites listed in the NSW EPA PFAS Investigation Program? ⁵	L
If the probability is medium or high in any of the rows, does the site analytical suite need to be optimised to include preliminary sampling and testing for PFAS in soil (incl. ASLP testing) and waters?	No

- Note 1 Probability: L low (all necessary documentation has been reviewed and there is no recorded instance or compelling rationale), M medium/moderate (all necessary documentation has been reviewed and there is potential evidence of a recorded instance with compelling rationale); H high (all necessary documentation has been reviewed and there is evidence of a recorded instance with compelling rationale); risk, N/A not applicable (or "-")].
- Note 2 Activities listed in Appendix B of the NEMP (2020). Further information, refer to https://www.oecd.org/env/ehs/risk-management/PFC_FINAL-Web.pdf.
- Note 3 Runoff from up-gradient PFAS use may impact surface water, soil, sediment and groundwater.
- Note 4 PFAS is used wide range of industrial processes and consumer products, including in the manufacture of nonstick cookware, specialised garments and textiles, Scotchguard™ and similar products (used to protect fabric, furniture, leather and carpets from oils and stains), metal plating and in some types of fire-fighting foam (https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfas).
- Note 5 https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program

5.3.2 Emerging Chemicals

The EPA uses Chemical Control Orders (CCOs) as a primary legislative tool under the EHC Act 1985 to control chemicals of concern and limit their potential impact on the environment. Considerations for chemicals controlled by CCOs, and other potential emerging chemicals, are outlined in **Table 5-2**. In this instance, the potential for an emerging chemical of concern to be present on-site was low and subsequently corresponding sampling / analysis of soil and water was unwarranted.

Table 5-2 Emerging or Controlled Chemicals

Chemicals of Concern (CCO or emerging)	Decision
Were aluminium smelter wastes used or stored on site (CCO, 1986)?	No
Do dioxin contaminated wastes (CCO, 1986) have the potential to impact the site? 1	No
Were organotin products (CCO, 1989) used or stored on site? ²	No
Were polychlorinated biphenyls (PCBs) used or PCB wastes (CCO, 1997) stored on-site? ³	No
Were scheduled chemical or wastes (CCO, 2004) used or stored ⁴	Potential for small quantity pesticides to have been used on the land.
Are other emerging chemicals suspected? 5	No
If Yes to any questions, has site sampling suite been optimised to include specific sampling for other chemicals of concern in soil, air and water	-

- Note 1 From burning of certain chemicals, smelting or chemical manufacturing or fire on or near the site.
- Note 2 From anti-fouling paints used or removed at boat and ship yards and marinas.
- Note 3 From older transformer oils and electrical capacitors
- Note 4 Twenty-four mostly organochlorine pesticides and industrial by-products
- Note 5 Other chemicals considered as emerging e.g. 1,4 dioxane (associated with some chlorinated VOCs).



5.4 Potential Contaminants

The potential contaminants at the site resulting from the site filling and previous site use were considered to be:

- Metals (M) arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc;
- Total Recoverable Hydrocarbons (TRH);
- Volatile Organic Compounds (VOC);
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAH);
- Organochlorine and Organophosphorus Pesticides (OCP/OPP);
- Polychlorinated Biphenyls (PCB); and
- Asbestos.

5.5 Potential Contamination in the Context of the Site

An assessment of the potential contamination risks for the site is outlined in Table 5-3.

Table 5-3 Assessment of Potential Contamination Risk

Potential Sources	Impacted Media	Contaminants of Potential Concern	Likelihood for Contamination
Importation of fill of unknown origin and quality	Soil and groundwater	Metals, TRH, BTEX, PAH, OCP, OPP, PCB and asbestos	Moderate Filling was observed in all locations sampled (see logs, Appendix F).
Hazardous building products from demolition of historic site structures	Building fabric	Metals (lead in particular), asbestos and PCB	Low Historic demolition of former structures have occurred onsite. However, given no visual signs of contamination (i.e. cement sheet fragments) was observed during site visit, the overall risk is considered low.
Historical pesticide use	Shallow soil	Metals (arsenic), OCP, OPP	Low If present, pesticides are expected to be limited to shallow soils considering the nature of their application.
Former onsite storage of material/equipment	Soils and groundwater	Metals, TRH, VOCs, BTEX, PAH	Moderate Impacts are likely to the soil layers and groundwater given significant materials storage activities happened onsite.
Former AST in the north-eastern site corner	Soils and groundwater	Metals, TRH, VOCs, BTEX, PAH	Moderate Impacts to the soil layers and groundwater are likely and considered of moderate risk.
Former water treatment basins in the central portion of the site	Soils and groundwater	Metals, TRH, VOCs, BTEX, PAH	Moderate Potential spills and leaks from the former water treatment basins are likely. The overall risk is considered moderate.



5.6 Potential Receptors

The following potential receptors of contamination from the site were identified as:

- Construction and maintenance workers;
- Users of the adjacent land during construction works;
- Future site users; and
- Ecological receptors in areas of exposed soil / landscaping.

5.7 Preliminary Conceptual Site Model

A summary of El's CSM, identifying the potential contamination sources, exposure pathways and human and environmental receptors is presented in **Table 5-4**.

5.8 Data Gaps

Based on the CSM derived for the site and the qualitative assessment of risks, the degree of any contamination associated with the potential contamination sources identified in **Section 5.3** constitute current investigation data gaps. These data gaps will require further assessment by intrusive investigation to quantify possible risks to further site receptors.



Table 5-4 Preliminary Conceptual Site Model

Potential Sources	Impacted Media	Contaminants of Potential Concern	Transport mechanism	Exposure pathway	Potential receptor
 Fill soils of unknown origin and quality Hazardous materials from demolition of historic structures 	lity BT aterials OF n of asl ires icide use storage of ment n the	BTEX, PAH, OCP, OPP, PCB and asbestos Soils during site redeve site maintenance and site post redevelopme Atmospheric dispersio outdoor and indoor air	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	 Ingestion Dermal contact Inhalation of particulates Inhalation of vapour Plant uptake 	 Construction and maintenance workers Adjacent site users Future site users (within landscaping areas) Ecological receptors in areas of exposed soil / landscaping
 Historical pesticide use Former onsite storage of material/equipment Former AST in the 			outdoor and indoor air spaces Volatilisation of contamination from soil		
north-eastern site corner			and diffusion to indoor air spaces		
 Former water treatment basins in the central portion of the site 	Groundwater	Dissolved Metals, TRH, VOCs, BTEX	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	IngestionDermal contactInhalation of vapours	Construction and maintenance workersFuture site users (basement user
			Migration of dissolved phase impacts in groundwater	Biota uptake	 Aquatic ecosystems
			Potential seepage into deep basement intercepting water table (on and offsite)		



6. Methodology

6.1 Sampling, Analysis and Quality Plan (SAQP)

The SAQP ensures that the data collected as part of this DSI, and ongoing environmental works carried out at the site are representative, and provide a robust basis for site assessment decisions. This SAQP includes the following:

- Data quality objectives, including a summary of the objectives of the DSI;
- Investigation methodology including media to be sampled, details of analytes and parameters to be monitored, and a description of intended sampling points;
- Sampling methods and procedures;
- Field screening methods;
- Laboratory analysis methods;
- Sample handling, preservation and storage; and
- Analytical QA/QC.

6.2 Data Quality Objectives (DQO)

In accordance with the US EPA (2006) *Data Quality Assessment* and the EPA (2017) *Guidelines for the NSW Site Auditor Scheme*, Data Quality Objectives (DQO) were established by the EI team to determine the appropriate level of data quality needed for the specific data requirements of the project. The DQO process that was applied for this assessment is documented in **Table 6-1**.



Table 6-1 Summary of Project Data Quality Objectives

DQO Steps	Details	Comments (changes during investigation)
State the Problem Summarise the contamination problem that	 The site is to be redeveloped into multi-storey, mixed use commercial and residential apartment buildings with six-levels of basement, as outlined in Section 1.2. 	-
will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site	 Historical information and site inspection observations identified the potential for soil and/or groundwater contamination due to various possible sources, as listed in Section 5.2. In light of the available historical information, a conceptual site model has been developed (Table 5-4) for the site. 	
model	 The findings of the investigation must provide supportive information on the environmental conditions of the site to determine the site's suitability for the proposed redevelopment. 	
2. Identify the Goal of the Study (Identify the decisions)	Based on the objectives outlined in Section 1.4 , the following decisions are identified: Has the site been adequately characterised with sufficient and appropriate sampling coverage (vertical	Given the site area (7,969 m ²) a minimum of 19 sampling points is required (based on
Identify the decisions that need to be made on the contamination problem and the new	and lateral) to assess for the presence of potential contamination sources?Has the nature, source and extent of any onsite impacts (soil, groundwater, and/or vapour) been defined?	NSW EPA Sampling Design
environmental data required to make them	 What influence do site-specific, geologic conditions have on the fate and transport of any impacts that may be identified? 	Guidelines).
	Does the degree of impact coupled with the fate and transport of identified contaminants represent an unacceptable risk to identified human and/or environmental receptors on or offsite?	
	Does the collected data provide sufficient information to allow the selection and design of an appropriate remedial strategy, assuming remedial action is necessary? If not, what are the remaining data gaps requiring closure?	
3. Identify Information Inputs (Identify	Inputs to the decision making process include:	-
inputs to decision)	Proposed development and land use;	
Identify the information needed to support	 Aerial photographs and historical information; 	
any decision and specify which inputs require new environmental measurements	Previous investigations;	
require new environmental measurements	 Areas of concern identified during the site inspection, prior to intrusive investigations; 	
	 National and NSW EPA guidelines endorsed under the NSW Contaminated Land Management Act 1997; 	
	 Investigation sampling (soils and/or groundwater) and laboratory analysis for potential contaminants to 	
	verify the presence of onsite contamination and to evaluate the potential risks to sensitive receptors; and • At the end of the investigation, a decision must be made regarding whether the soils and/or groundwater	
	are suitable for the proposed development, or if additional investigation or remedial works are required to make the site suitable for the proposed use.	



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DQO Steps	Details	Comments (changes during investigation)
4. Define the Boundaries of the Study Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision	 Lateral – the investigation will be conducted within the cadastral boundaries of the site (Figure 2). Vertical – Investigations will be advanced to the depth of natural soils or rock. Temporal – Results are valid on the day of data / sample collection and remain valid as long as no changes occur on site or contamination (if present) does not migrate on site or on to the site from off-site sources. 	-
5. Develop the Analytic Approach (Develop a decision rule) To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions	 The decision rules for the investigation were: If the concentrations of contaminants in the soil and/or groundwater data exceed the adopted criteria; then assess the need to further investigate the extent of impacts onsite. Decision criteria for QA/QC measures are defined by the Data Quality Indicators (DQI) in Table 5-2. 	-
6. Specify Performance or Acceptance Criteria (Specify limits on decision errors) Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data	 Based on the qualitative data gathered via site history review and site walkover observations, a non- statistical judgemental sampling design was selected for performing soil and groundwater sampling. The sampling will target identified as areas of environmental concern (AEC) based identified contamination sources, known contaminants of concern, and professional judgement. 	-
7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data) Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs	 Conduct 19 soil sampling locations, distributed in a triangular grid pattern across the site. One round of groundwater sampling from the constructed four groundwater monitoring wells. An upper soil profile sample will be collected at each location and tested for chemicals of concern, to assess the environmental condition of the fill layer, and for potential impacts from historical, above-ground activities. Further sampling was also performed in deeper soil layers. Samples were selected for analytical testing based on field observations (including visual and olfactory evidence). Representative groundwater samples will be collected and analysed for groundwater characterisation. 	-



6.3 Data Quality Indicators

To ensure that the investigation data collected was of an acceptable quality, the investigation data set was assessed against the data quality indicators (DQI) outlined in **Table 6-2**, which related to both field and laboratory-based procedures. The assessment of data quality is discussed in **Section 7**.

Table 6-2 Data Quality Indicators

QA/QC Measure

Data Quality Indicator

Precision – A quantitative measure of the variability (or reproducibility) of data

Data precision would be assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Data precision would be deemed acceptable if RPDs are found to be less than 30%. RPDs that exceed this range may be considered acceptable where:

- Results are less than 10 times the limits of reporting (LOR).
- Results are less than 20 times the LOR and the RPD is less than 50%.
- Heterogeneous materials or volatile compounds are encountered.
- In cases where RPD values were considered unacceptable, the analytical results of primary and duplicate samples were both reviewed against the adopted assessment criteria. If the review indicates the variations in data between the primary and duplicate samples would result in a different conclusion (e.g. the higher concentration is failing the assessment criteria), the need for re-sampling / validation would be considered.
- Duplicate samples are to be collected at a rate of 5% (1 duplicate sample per 20 samples collected).

Accuracy – A quantitative measure of the closeness of reported data to the "true" value Data accuracy would be assessed through the analysis of:

- Method blanks, which are analysed for the analytes targeted in the primary samples.
- Matrix spike and matrix spike duplicate sample sets.
- Laboratory control samples.
- Calibration of instruments against known standards.
- Variation in results reported by the primary and secondary laboratories for primary and duplicate samples.

Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite

To ensure the data produced by the laboratory is representative of conditions encountered in the field, the laboratory would carry out the following:

- Collect samples that are representative of the material being sampled and biased to any suspect locations based on physical evidence.
- Blank samples will be run in parallel with field samples to confirm there are no unacceptable instances of laboratory artefacts.
- Review of relative percentage differences (RPD) values for field and laboratory duplicates to provide an indication that the samples are generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities.
- The appropriateness of collection methodologies, handling, storage and preservation techniques will be assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).
- Consistency between field vapour screening information and laboratory results.



Data Quality Indicator QA/QC Measure Completeness - A Analytical data sets acquired during the assessment will be evaluated as measure of the amount of complete, upon confirmation that: useable data from a data Standard operating procedures for sampling protocols were adhered to. collection activity Copies of all COC documentation are presented, reviewed and found to be properly completed. It can therefore be considered whether the proportion of "useable data" generated in the data collection activities is sufficient for the purposes of the land use assessment. Comparability - The Given that a reported data set can comprise several data sets from separate confidence (expressed sampling episodes, issues of comparability between data sets are reduced qualitatively) that data may through adherence to standard operation procedure and regulator-endorsed or be considered to be published guidelines and standards on each data gathering activity. equivalent for each Sampling was conducted by the same sampler where possible to enhance sampling and analytical project continuity and minimise variability in sampling technique. event Sampling under inclement weather conditions were avoided to minimise variability contributed by weather conditions.

Required Sampling Frequency

- Intra-laboratory Duplicate 1 in 20 samples
- Inter-laboratory Duplicate 1 in 20 samples
- Rinsate Blanks 1 per batch where non-dedicated sampling equipment used

Samples to be collected using procedures meeting NSW EPA endorsed

In addition the data will be collected by experienced samplers and NATAaccredited laboratory methodologies will be employed in all laboratory testing

- Trip Blanks 1 sample per batch
- Trip Spike 1 sample per batch

guidelines.

programs.

6.4 Sampling Rationale

With reference to the CSM described in **Section 5.7**, soil and groundwater investigations were planned in accordance with the following rationale:

- Sampling of the widespread fill and underlying natural soils from 19 locations, distributed in a triangular grid pattern across the site;
- Installation of four groundwater monitoring wells in targeted locations and a single groundwater monitoring event (GME) to assess the impacts (if any) to groundwater; and
- Laboratory analysis of representative soil and groundwater samples for the identified potential contaminants.

6.5 Assessment Criteria

The assessment criteria proposed for this project are outlined in **Table 6-3**. These were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenarios that are expected for various parts of the site, the likely exposure pathways, and the identified potential receptors.



Table 6-3 Adopted Investigation Levels for Soil and Groundwater

Environmental Media	Adopted Guidelines	Rationale
Soil	NEPM (2013)	Soil Health-based Investigation Levels (HILs)
	Soil HILs, EILs,	NEPM (2013) HIL-A thresholds for residential with
	HSLs, ESLs & Management Limits for TPHs DLWC (2002)	garden/accessible soil were applied to assess the site as the
		most conservative approach.
		Soil Health-based Screening Levels (HSLs)
		As a conservative approach, the NEPM (2013) Soil HSL-A&B thresholds for vapour intrusion at low to high density residential sites were applied to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene.
		For asbestos:
		 No visible asbestos for surface soils.
		 HSL-A: for bonded ACM.
		0.001% w/w for friable asbestos in soil.
		Ecological Investigation Levels (EILs) / Ecological Screening Levels (ESLs)
		All soil samples would also be assessed against the NEPM (2013) ElLs for urban residential and public open space land u as a conservative approach. ElLs / ESLs only apply to the top m (root zone). The derived ElL criteria presented by El are calculated based on the average results of pH (6.1) and CEC (7.8 meq/100g). The adopted ESL criteria presented by El are based on fine grained criteria. Management Limits for Petroleum Hydrocarbons Should the ESLs and HSLs be exceeded for petroleum hydrocarbons, soil samples would also assessed against the NEPM 2013 Management Limits for the TRH fractions F1 – F4 to assess propensity for phase-separated hydrocarbons (PSH) fire and explosive hazards & adverse effects on buried infrastructure. Soil Salinity Soil salinity classes were calculated from the Indicators of Urba Salinity (DLWC).
Groundwater	NEPM (2013) GILs for Fresh Waters	Groundwater Investigation Levels (GILs) for Fresh Water NEPM 2013 provides GILs for typical, slightly-moderately disturbed aquatic ecosystems, which are based on the ANZEC & ARMCANZ 2000 Trigger Values (TVs) for the 95% level of protection of aquatic ecosystems; however, the 99% TVs were applied for the bio-accumulative metals <i>cadmium</i> and <i>mercury</i> . The fresh water criteria were considered relevant as the Cattai Creek was the closest surface water receptor to the site.
	NEPM (2013) Groundwater HSLs for Vapour Intrusion	Groundwater Health-Based Screening Levels (HSLs) As a conservative approach, HSL-A&B thresholds for vapour intrusion in sand at low to high density residential sites were applied for groundwater to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene.



For the purposes of this investigation, the adopted soil assessment criteria are referred to as the Soil Investigation Levels (SILs) and the adopted groundwater assessment criteria are referred to as Groundwater Investigation Levels (GILs). SILs/GILs are presented alongside the analytical results in the corresponding summary tables, which are discussed in **Section 8**.

6.6 Soil Investigation

The soil investigation works conducted at the site are described in **Table 6-4**. Test bore locations are illustrated in **Figure 2**.

Table 6-4 Summary of Soil Investigation Methodology

	y or oon invocagation monioaciogy
Activity/Item	Details
Fieldwork	Field works were conducted from 8 July to 22 July 2020 and comprised 19 soil sampling locations.
Investigation Method	Test bores BH1 to BH6 were drilled using a solid flight auger drilling rig, while test pits TP7 to TP19 were completed using an excavator.
Soil Logging	Collected soils were classified in the field with respect to lithological characteristics and evaluated on a qualitative basis for odour and visual signs of contamination. Soil classifications and descriptions were based on Australian Standard (AS) 1726-2017. Logs are presented in Appendix F .
Field Observations	A summary of field observations compiled during intrusive investigations is provided on the logs in Appendix F . Field observations are summarised in Section 8.1.2 .
Soil Sampling	 Soil samples were collected using a dry grab method (unused, dedicated nitrile gloves) & placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars.
	 Blind field duplicates were separated from the primary samples and placed into glass jars.
	 A small amount of sample was separated from all fill samples and placed into a zip-lock bag for asbestos analysis.
	 A small amount of duplicate was collected from each soil samples and placed into zip-lock bag for Photo-ionisation Detector (PID) screening.
Decontamination	Nitrile sampling gloves were replaced between each sampling location.
Procedures	Samples were collected from a different part of the solid flight auger and the auger was cleaned from all residual soil waste between each location.
Sample Preservation	Samples were stored in a chilled chest (with frozen ice packs), whilst on-site and in transit to the laboratory. All samples were submitted and analysed within the required holding period, as documented in laboratory reports discussed in a later section.
Management of Soil Cuttings	Soil cuttings were used as backfill for completed boreholes and test pits.
Quality Control & Laboratory Analysis	A number of soil samples were submitted for analysis of previously-identified chemicals of concern by SGS Laboratories (SGS). QA/QC testing comprised intralaboratory duplicates ('field duplicates') tested blind by SGS and an inter-laboratory field duplicate tested blind by Envirolab Services (Envirolab).
	All samples were transported under strict COC conditions and COC certificates and laboratory sample receipt documentation were provided to EI for confirmation purposes, as discussed in Section 7 .
Soil Vapour Screening	Screening for potential VOCs in collected soil samples was conducted using a pre- calibrated Photoionisation Detector (PID) with a 10.6 mV ionisation lamp.



6.7 Groundwater Investigation

The groundwater investigation works conducted at the site are described in **Table 6-5**. Monitoring well locations are illustrated in **Figure 2**.

Table 6-5 Summary of Groundwater Investigation Methodology

Activity/Item	Details
Fieldwork	Groundwater monitoring wells were installed on 17, 21 & 22 July 2020. Groundwater sampling for all the monitoring wells was conducted on 29 July 2020. Additional sampling was conducted on 18 August 2020 for BH4M-a (after fulling developing the well).
Well Construction	Well construction details are summarised as follows:
	 BH3M-a (located hydraulically down-gradient) installed to a total depth of 6.1 mBGL (screened from 3.1-6.1 mBGL).
	 BH4M-a (located hydraulically up-gradient) installed to a total depth of 7.7 mBGL (screened from 4.7-7.7 mBGL).
	 BH5M (located hydraulically down-gradient) installed to a total depth of 6.5 mBGL (screened from 2.5-6.5 mBGL).
	 BH7M (located hydraulically down-gradient) installed to a total depth of 4.9 mBGL (screened from 1.9-4.9 mBGL).
	Well construction was in general accordance with the standards described in NUDLC (2012) and involved the following:
	 50 mm, Class 18 uPVC, threaded, machine-slotted screen and casing;
	 Base and top of each well was sealed with a uPVC cap;
	 Annular, graded sand filter was used to approximately 300 mm above top of screen interval;
	 Granular bentonite was applied above annular filter to seal the screened interval;
	 Cuttings backfill just below ground level; and
	 Surface completion comprised a PVC stick-up pipe, with plastic cap.
Well Development	Well development was conducted for each well directly following installation. This involved agitation within the full length of the water column using a dedicated, HDPE, disposable bailer, followed by removal of water and accumulated sediment using a 12V, HDPE submersible bore pump (Proactive Environmental, model Super Twister). Pumping was continued until no further reduction in suspended sediment was observed (i.e. after removal of several well volumes).
Well Survey	No well survey having been completed at the site. The monitoring well locations were compared to the reduced levels (mAHD) given on the survey plan (see Appendix C).
Well Gauging and Groundwater Flow	Monitoring wells were gauged for standing water level (SWL) prior to sampling at the commencement of the GME on 29 July 2020.
Direction	Based on the water level measured at each monitoring well (Table 8-3), groundwater was inferred to flow south-westerly.
Well Purging and Field Testing	No volatile or organic odours were detected during any stage of well purging or sampling. The measurement of water quality parameters was conducted repeatedly during purging and the details were recorded onto field data sheets, once water quality parameters stabilised. Field measurements for Dissolved Oxygen (DO), Electrical Conductivity (EC) and pH of the purged water were also recorded during well purging. Purged water volumes removed from each well and field test results are summarised in Table 8-3 .



Activity/Item **Details** Groundwater was sampled using a micro-purge system (with the exception of the Groundwater sampling additional round of sampling for BH4M-a, which was sampled using a HDPE bailer for heavy metal testing only). Water was continuously measured for four parameters (Temperature, EC, Redox, DO, pH). Once three consecutive field measurements were recorded for the purged waters to within ± 10% for DO, ± 3% for EC, ± 0.2 for pH, $\pm 0.2^{\circ}$ for temperature and ± 20 for redox, this was considered to indicate that representative groundwater quality had been achieved and final physio-chemical measurements were recorded. Groundwater samples were then collected from the micro-purge sampling pump discharge point. The micro-purge pump is decontaminated in a solution of potable water and Decontamination Decon 90 and then rinsed with potable water between each location. Procedure The micro-purge system employs a disposable bladder and tubing system to further minimise potential cross contamination. All sample containers were supplied by the laboratory and were only opened once, immediately prior to sampling. Ice packs kept in an insulated chest were used to keep the samples cool; and The water level probe and sampling kit were washed in a solution of potable water and Decon 90 and then rinsed with potable water between uses. Sample Preservation Sample containers were supplied by the laboratory with the following preservatives: • One, 1 litre amber glass, acid-washed and solvent-rinsed bottle; Two, 40ml glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; • One, 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1 mL). Samples for metals analysis were field-filtered using 0.45 µm pore-size filters. All containers were filled with sample to the brim then capped and stored in ice-filled chests, until completion of the fieldwork and during sample transit to the laboratory. Sample Transport After sampling, the ice brick filled coolers were transported to SGS Australia Pty Ltd using Chain-of-Custody (COC) procedures. Inter-laboratory duplicate (ILD) samples were forwarded to Envirolab Services Pty Ltd (Envirolab) for QA/QC analysis. A Sample Receipt Advice (SRA) was provided by each laboratory to document sample condition upon receipt. Copies of SRA and COC certificates are presented in Appendix H. Quality Control and All groundwater samples were submitted for analysis of previously-identified Laboratory Analysis chemicals of concern by SGS Laboratories (SGS). QA/QC testing comprised intralaboratory duplicates ('field duplicates') tested blind by SGS and an inter-laboratory field duplicate tested blind by Envirolab Services (Envirolab). All samples were transported under strict Chain-of-Custody (COC) conditions and COC certificates and laboratory sample receipt documentation were provided to EI for confirmation purposes.



Data Quality Assessment

7.1 Quality Control Process

The assessment of data quality is defined as the scientific and statistical evaluation of environmental data to determine if the data meets the objectives for the project (USEPA 2006). Data quality assessment included an evaluation of the compliance of the field sampling, field and laboratory duplicates and laboratory analytical procedures and an assessment of the accuracy and precision of these data from the laboratory quality control measurements. The findings of the data quality assessment in relation to the current investigation at the site are discussed in detail in **Appendix J**.

The QC measures generated from the field sampling and laboratory analytical program are summarised in **Table 7-1**.

Table 7-1 Quality Control Process

Data Quality	Control	Conformance [Yes, Part, No]	Report Sections
Preliminaries	Data Quality Objectives established	Yes	See DQO/DQI, Section 6.2,6.3
Field work	Suitable documentation of fieldwork observations including borehole logs, sample register, field notes	Yes	See Appendix F & G
	Use of relevant and appropriate sampling plan (density, type, and location)	Yes	See sample rationale, Section 6.4
	All media sampled and duplicates collected	Part	See Appendix G and H, BH7M did not have enough water for sampling.
	Use of approved and appropriate sampling methods (soil, groundwater, air quality)	Yes	See methodology, Section 6.6 and 6.7
	Preservation and storage of samples upon collection and during transport to the laboratory	Yes	See methodology, Section 6.6 and 6.7
	Appropriate Rinsate, Field and Trip Blanks taken	Yes	See Appendix H
Preliminaries Field work Sampling Plan	Completed field and analytical laboratory sample COC procedures and documentation	Yes	See Appendix H
Laboratory	Sample holding times within acceptable limits	Yes	See laboratory QA, Appendix J.3
	Use of appropriate analytical procedures and NATA-accredited laboratories	Yes	See laboratory report, Appendix I



Data Quality	Control	Conformance [Yes, Part, No]	Report Sections				
	LOR/PQL low enough to meet adopted criteria	Yes	See laboratory report, Appendix I				
	LOR/PQL low enough to meet adopted criteria Laboratory blanks Laboratory duplicates Matrix spike/matrix spike duplicates (MS/MSDs) Surrogates (or System Monitoring Compounds) Analytical results for replicated samples, including field and laboratory duplicates inter-laboratory duplicates, expressed as Relative Percentage Difference (RPD) Checking for the occurrence of apparent unusual or anomalous results, e.g. laboratory results that appear to be inconsistent with field observations or measurements	Yes	See laboratory QA, Appendix J.3				
		Yes	See laboratory QA, Appendix J.3				
	· · · · · · · · · · · · · · · · · · ·	Yes	See laboratory QA, Appendix J.3				
		Yes	See laboratory QA, Appendix J.3				
	Analytical results for replicated samples, including field and laboratory duplicates and inter-laboratory duplicates, expressed as Relative Percentage Difference (RPD)	Yes	See laboratory QA, Appendix J.3				
	laboratory results that appear to be inconsistent with field observations or	Yes	See Appendices B and F				
Reporting		Yes	See document control				

7.2 Quality Overview

On the basis of the field and analytical data validation procedure employed, the overall quality of the analytical data produced for the site was considered to be of an acceptable standard for interpretive use and preparation of a conceptual site model (CSM).



8. Results

8.1 Soil Investigation Results

8.1.1 Subsurface Conditions

The general site lithology encountered during the soil investigations may be described as a layer of anthropogenic filling, overlying residual clay and sandstone bedrock. More detailed description is summarised in **Table 8-1** and the logs from these works are presented in **Appendix F**.

Table 8-1 Generalised Subsurface Profile (mBGL)

Layer	Description	Average depth to top and bottom of layer (mBGL)
	Silty CLAY; low plasticity, pale grey to red brown/dark brown, with sandstone, gravels and sand, no odour.	0.0-4.0
Fill -	Gravelly SAND; fine to medium grained, brown, with gravels, clay, sandstone and foreign materials (brick, metal, concrete, plastic and steel wires), no odour.	0.0-1.8
	Silty SAND; fine to medium grained, brown, with low plasticity clay and concrete fragments, no odour.	0.0-2.0
	Silty CLAY; low to medium plasticity, light brown mottled orange, no odour.	1.0-1.4
Residual	Silty CLAY; medium plasticity, pale grey, with gravels and sand, grading to extremely weathered sandstone, no odour.	0.6-4.6
	Sandy CLAY; low to medium plasticity, pale grey and orange-brown, grading to extremely weathered sandstone, no odour.	2.6-5.0+
Bedrock	SANDSTONE; fine to medium grained, pale grey and orange-brown, low to medium strength, slightly to distinctly weathered, no odour.	2.1-3.95+

⁺ Termination depth of test pit and borehole.

8.1.2 Field Observations and PID Results

Soil samples were obtained from the test bores and test pits at various depths ranging between 0.1 to 5.0 mBGL. All examined soil samples were evaluated on a qualitative basis for odour and visual signs of contamination (e.g. hydrocarbon odours, oil staining, petrochemical filming, asbestos fragments, ash, charcoal) and the following observations were noted:

- Hydrocarbon odour was noted in fill at test pits: TP12 (from depth at 1.7m) and TP13 (from depth at 1.8m);
- Weak odour was noted in fill and natural soils at BH2 (from depth 1.0m to 2.0m);
- Steel wires were noted in fill at test pits: TP10, TP13 and TP15;
- Concrete footing was noted at the bottom of the test pit at TP 16; and
- VOC concentrations from collected soil samples were low, ranging between 0.3 and 1.6 parts per million (ppm). VOC concentrations were field-screened using a portable Photoionisation Detector (PID). The PID results are shown in the logs (Appendix F).



8.2 Groundwater Investigation Results

8.2.1 Monitoring Well Construction

A total of four groundwater monitoring wells were installed on the site on 17, 21 &22 July 2020. Well construction details for the installed groundwater monitoring wells are summarised in **Table 8-2**.

Table 8-2 Monitoring Well Construction Details

Well ID	Well Depth (mBGL)	Well Stick up (m)	Screen Interval (mBGL)	Lithology Screened
ВН3М-а	6.1	+1.0	3.1-6.1	Sandstone
ВН4М-а	7.7	+0.96	4.7-7.7	Sandstone
ВН5М	6.5	+0.6	2.5-6.5	Sandstone
ВН7М	4.9	+1.0	1.9-4.9	Sandstone

mBGL- Metres Below Ground Level.

8.2.2 Field Observations

A groundwater monitoring event (GME) was conducted on 29 July 2020 for all the monitoring wells installed. In addition, another round of sampling for BH4M-a was conducted on 18 August to confirm the heavy metal results. Field data was recorded before sampling, as presented in **Table 8-3**. Field data sheets are attached in **Appendix G**. Samples were then evaluated on the basis of odour and visual signs of contamination, with the following observations noted:

- Groundwater in monitoring well BH3M-a and BH5M was noted to be light brown, with low to medium turbidity, while in BH4M-a, groundwater was noted to be brown, with medium to high turbidity;
- No sufficient water was in monitoring well BH7M for sampling and field observation;
- No olfactory or visual evidence of contamination was noted in the monitoring wells;
- No sheens were noted within the groundwater of any monitoring well sampled; and
- Additional round of sampling of BH4M-a recorded the groundwater in this well was noted to be light brown, with low to medium turbidity on 18 August 2020.

Table 8-3 Groundwater Field Data

Well ID	SWL (mBTOC)	SWL (mBGL)	SWL (mAHD)	DO (mg/L)	Field pH	Field EC (μS/cm)	Temp (°C)	Redox (mV)
ВН3М-а	3.58	2.58	88.92	0.59	5.15	2809	21.08	106.2
BH4M-a	5.44	4.48	93.02	0.91	5.24	3088	20.95	97.03
BH5M	4.64	4.04	89.96	0.80	5.29	2782	20.90	92.4
BH7M	-	-	-	-	-	-	-	-

SWL – Standing Water Levels as measured from TOC (top of well casing) prior to groundwater sampling.

BGL - Below Ground Level.

AHD - Australian Height Datum (approximate).



8.3 Laboratory Analytical Results

8.3.1 Soil Analytical Results

A summary of the laboratory results showing number of tested samples, minimum/maximum analyte concentrations for primary samples and samples found to exceed the SILs, is presented in **Table 8-4**. More detailed tabulations of results showing the tested concentrations for individual samples alongside the adopted soil criteria are presented in **Table T1** in **Appendix B**.

Completed documentation used to track soil sample movements and laboratory receipt (i.e. COC and SRA forms) are copied in **Appendix H** and all laboratory analytical reports for tested soil samples are presented in **Appendix I**.

Table 8-4 Summary of Soil Analytical Results

No. of Primary Samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample(s) Exceeding SILs
Priority Metals				
43	Arsenic	<1	14	None
43	Cadmium	<0.3	<0.3	None
43	Chromium (Total)	2.3	42	None
43	Copper	<0.5	130	None
43	Lead	2	23	None
43	Nickel	<0.5	34	None
43	Zinc	<2	87	None
43	Mercury	<0.05	<0.05	None
PAHs				
42	Benzo(α)pyrene	<0.1	0.5	None
42	Carcinogenic PAHs	<0.3	0.8	None
42	Naphthalene	<0.1	<0.1	None
42	Total PAHs	<0.8	8	None
TRHs (including	втех)			
42	TRH C_6 - C_{10} minus BTEX (F1)	<25	<25	None
42	TRH >C ₁₀ -C ₁₆ (F2) minus Naphthalene	<25	<25	None
42	TRH >C ₁₆ -C ₃₄ (F3)	<90	280	None
42	TRH >C ₃₄ -C ₄₀ (F4)	<120	370	None
42	Benzene	<0.1	<0.1	None
42	Toluene	<0.1	<0.1	None
42	Ethylbenzene	<0.1	<0.1	None
42	Total Xylenes	<0.3	<0.3	None
OCPs				



No. of Primary Samples	Analyte	Min. Conc. (mg/kg)	Max. Conc. (mg/kg)	Sample(s) Exceeding SILs
38	OCPs	<1	<1	None
OPPs				
38	OPPs	<1.7	<1.7	None
PCBs				
38	PCBs	<1	<1	None
Asbestos (preser	nce/absence)			
39	Asbestos	Not Detected	Not Detected	None

8.3.2 Soil salinity

Laboratory results indicated that natural soils on site were non-saline. Soils were found to be slightly acidic (pH ranged from 4.6 to 6.1), with the exception of soil sample at BH3M reported pH at 9.4.

8.3.3 Groundwater Analytical Results

Laboratory analytical results for groundwater samples are summarised in **Table 8-5**, which also include the test sample quantities, minimum/maximum analyte concentrations for primary samples and samples found to exceed the GILs. More detailed tabulations of results showing the tested concentrations for individual samples alongside the adopted groundwater criteria are presented in **Table T2** in **Appendix B**.

Completed documentation used to track groundwater sample movements and laboratory receipt (COC and SRA forms) are copied in **Appendix H**. Copies of the laboratory analytical reports are attached in **Appendix I**.



Table 8-5 Summary of Groundwater Analytical Results

No. of Primary Samples	Analyte	Min. Conc. (μg/L) ¹	Max. Conc. (μg/L) ¹	Sample(s) Exceeding GILs
Priority Met	tals	·		
3	Arsenic	<1	2	None
3	Cadmium	<0.1	0.2	None
3	Chromium (Total)	1	3	BH5M (3µg/L) exceeded fresh water criteria for Cr VI (1 µg/L)
3	Copper	22	23	BH3M-a (22 µg/L), BH4M-a (22 µg/L) and BH5M (23 µg/L) exceeded fresh water criteria (1.4 µg/L)
3	Lead	<1	30	BH4M-a (30 µg/L) and BH5M (11µg/L) exceeded fresh water criteria (3.4µg/L)
3	Nickel	26	38	BH3M-a (26μg/L), BH4M-a (38 μg/L) and BH5M (27μg/L) exceeded fresh water criteria (11μg/L)
3	Zinc	74	240	BH3M-a (74 µg/L), BH4M-a (240 µg/L) and BH5M (180 µg/L) exceeded fresh water criteria (8µg/L)
3	Mercury	<0.1	<0.1	None
PAHs				
3	Benzo(α)pyrene	<0.1	<0.1	None
3	Naphthalene	<0.1	<0.1	None
3	Total PAHs	<1	<1	None
TRHs (inclu	ıding BTEX)			
3	TRH C_6 - C_{10} minus BTEX (F1)	<50	52	None
3	TRH >C ₁₀ -C ₁₆ (F2) minus Naphthalene	<60	76	None
3	TRH >C ₁₆ -C ₃₄ (F3)	<500	<500	None
3	TRH >C ₃₄ -C ₄₀ (F4)	<500	<500	None
3	Benzene	<0.5	<0.5	None
3	Toluene	<0.5	<0.5	None
3	Ethylbenzene	<0.5	<0.5	None
3	o-xylene	<0.5	<0.5	None
3	m/p-xylene	<1	<1	None
VOCs				



No. of Primary Samples	Analyte	Min. Conc. (μg/L) ¹	Max. Conc. (μg/L) ¹	Sample(s) Exceeding GILs
3	Chloroform (THM)	1.7	39	None
3	Bromodichloromethane (THM)	<0.5	6.6	None
3	Dibromochloromethane (THM)	<0.5	1.6	None
3	Total VOC	<10	48	None

Note 1 Reported minimum and maximum concentrations shows results after resampling of BH4M-a.



9. Site Characterisation

9.1 Subsurface Conditions

The general site lithology encountered during this investigation can be described as a layer of anthropogenic filling overlying residual clay and sandstone bedrock. The depth of fill soils at the site ranged from 0.6 mBGL in the south-eastern corner at BH1 to 4.0 mBGL in the north-eastern corner at BH4M. The fill soils at the central portion of the site (TP15 and TP18) and south-western corner of the site (BH3M, TP12 and TP13) were also noted to be of moderate depths (ranged between 2.1m and 3.0m BGL).

9.2 Soil Impacts

No visual signs of contamination (e.g. oil staining, petrochemical filming, asbestos fragments) were noted during the soil investigation.

Contaminant concentrations in soils, sampled across the site, were all found to be below the most conservative human health (HIL A / HSL A&B) and ecological criteria.

9.3 Salinity

Laboratory results indicated that natural soils on site were non-saline. Soils were found to be slightly acidic (pH ranged from 4.6 to 6.1), with the exception of soil sample at BH3M reported pH at 9.4.

9.4 Groundwater Impacts

With reference to **Table 8-5** and **Table T2**, concentrations of PAHs, BTEX, TRHs and VOCs were reported below the adopted criteria.

For heavy metals, chromium, copper, lead, nickel and zinc were detected in groundwater at levels above the adopted GILs. However, as the elevation of metal concentrations are common in urban groundwater environments, the detected concentrations are considered to be indicative of background conditions, rather than site specific impacts. In addition, no on-site sources in relation to heavy metals were identified in site soils.

Tested TRH concentrations were below the PQL, with the exception of TRH-F1 fraction was detected in BH4M-a ($52\mu g/L$) and TRH-F2 fraction was detected in BH5M ($76\mu g/L$), which slightly exceeded the laboratory PQL ($50\mu g/L$ for TRH-F1 and $60\mu g/L$ for TRH-F2).

For the proposed mixed use, residential and commercial land use, the TRH-F1 and TRH-F2 results can be compared to the HSL-A&B (low to high density residential) and HSL-D (commercial/industrial) criteria. In such a comparison, the TRH-F1 HSL-A&B and HSL-D criteria are 1,000 μ g/L and 6,000 μ g/L, and the TRH-F2 HSL-A&B and HSL-D criteria are 1,000 μ g/L and Not-Limiting, so the results are below these criteria and thus the TRH in groundwater is not considered to pose human health risk to the current land use.

Total VOC concentrations were detected in BH3M-a (13µg/L) and BH4M-a (48µg/L) for Trihalomethanes (THMs). As the detected THMs concentrations were low, it is not considered to pose human health risk at the site.



9.5 Review of Conceptual Site Model

Preliminary CSM discussed in **Sections 5.7** generally identified a low to moderate contamination risk on the site, relating to the widespread fill across the site, hazardous materials from demolition of historic structures, historical pesticide use, former onsite storage of material/equipment, former AST and water treatment basins in the north-eastern site corner and central portion of the site. On the basis of investigation findings, the preliminary CSM was considered to appropriately identify contamination sources, migration mechanisms and exposure pathways, as well as potential receptors. Previously known data gaps, as discussed in **Section 5.8** have largely been addressed, with the exception of the following:

- Groundwater quality in monitoring well BH7M is not known due to insufficient water for sampling;
- No well survey having been completed at the site. Based on the limited survey data and depth to water the groundwater appears to be flowing to the south west toward Cattai Creek in a similar direction to the overall topography.

9.6 Preliminary Waste Classification

Preliminary waste classification was conducted during this investigation. This information is for the purpose of development planning and does not constitute a formal waste classification certificate, as required by the *NSW Waste Regulations 2014*. A table with tabulated data can be found in **Appendix B**.

It is recommended that the fill soils on the site classified as General Soil Waste (GSW). The analytical results were below CT1 criteria and depending on the receiving facility might be classified as GSW-recyclable. The results also met the Excavated Natural Material (ENM) criteria but testing is needed for pH, EC and foreign material. The underlying natural soils on the site can be classified as Virgin Excavated Natural Material (VENM).



10. Conclusions

The property located at Doran Drive Precinct, 2 Mandala Parade, Castle Hill NSW was the subject of a Detailed Site Investigation, which was conducted in order to assess the nature and degree of on-site contamination associated with current and former uses of the property. Based on the findings of this DSI it was concluded that:

- The site was found to be a rectangular vacant block, secured by construction hoarding and security fencing. It was elevated above the surrounding land, which displayed a moderate downslope towards the southwest. The ground surface was covered by exposed fill materials, with limited vegetation present onsite. No visual evidence of gross contamination, UPSS or UST was observed on the site during the site inspection.
- A review of historical information indicated the site was used as rural residential, agricultural, vacant pastoral and public open space (playing fields) until the late 1980s. Since 2013, significant ground disturbance works (bulk earthworks and material storage) have been completed as a result of the SMNW Project activities. The site was used for a holding and processing yard during that period, which included excavated water treatment basins, material/equipment storage and site sheds. During 2019, the current site configuration was established and cleared of all previous structures. The site surface was significantly filled and raised above the surrounding land.
- The site and surrounding lands were not listed on any of the EPA records reviewed.
- Soil sampling and analysis were conducted at 19 locations across the site.
 - The sub-surface layers observed comprised of fill materials (up to 4.0m depth) overlying natural clay and sandstone bedrock;
 - Laboratory results for all the soil samples collected reported concentrations below the most conservative human health and ecological based SILs;
 - Laboratory results indicated that natural soils on site were non-saline. Soils were found to be slightly acidic (pH ranged from 4.6 to 6.1), with the exception of soil sample at BH3M reported pH at 9.4
- Four groundwater monitoring wells were installed on the site.
 - Standing Water Levels (SWL) were observed between 2.58 and 4.48 mBGL;
 - Groundwater was likely to flow south-westerly towards Cattai Creek;
 - Concentrations of PAHs, BTEX, TRHs and VOCs were reported below the adopted criteria;
 - Concentrations of heavy metals were reported below the adopted freshwater criteria, with the exception of chromium, copper, lead, nickel and zinc. However, the detected concentrations are considered to be indicative of background conditions, rather than site specific impacts.
 - Therefore the identified groundwater concentrations are not considered to present a cause for human health and environmental concern.
- Based on the analytical results, the following preliminary classifications were provided (with reference to the EPA (2014) Waste Classification Guidelines):



- The fill materials on the site were classified as General Solid Waste (Non-Putrescible);
 and
- The underlying natural soils on the site were classified as *Virgin Excavated Natural Material* (VENM).

Based on the findings of this investigation, EI conclude that the site is suitable for the proposed mixed commercial and residential development provided the recommendations detailed in **Section 11** are implemented.



11. Recommendations

In view of the above findings and in accordance with the NEPM 2013 guidelines, it is considered that the site is suitable for the proposed mixed commercial and residential development on completion of the following recommendations:

- Any fill or natural soil materials that are required to be removed from site as surplus materials (including virgin excavated natural materials or VENM) as part of any excavation and foundation works are to be classified for off-site disposal in accordance the EPA (2014) Waste Classification Guidelines and Protection of the Environmental Operations (Waste) Regulations (2014);
- Any material imported to the site should be validated as suitable for the intended use in accordance with EPA guidelines.



12. Statement of Limitations

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field investigation program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from previous assessments conducted on site, regulatory agencies (e.g. Council, EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events, e.g. groundwater movement and or spillages of contaminating substances. These changes may occur subsequent to El's investigations and assessment.

El's assessment is necessarily based upon the result of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the proposal. Neither El, nor any other reputable consultant, can provide unqualified warranties nor does El assume any liability for site conditions not observed or accessible during the time of the investigations.

This report was prepared for the above named client and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.



13. References

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14. Abbreviations

ACM Asbestos-Containing Materials AHD Australian Height Datum

AS Australian Standard
ASS Acid Sulfate Soils

B(a)P Benzo(a)Pyrene (a PAH compound), - B(a)P TEQ Toxicity Equivalent Quotient

BGL Below Ground Level

BH Borehole

BTEX Benzene, Toluene, Ethylbenzene, Xylene

COC Chain of Custody
CSM Conceptual Site Model
DA Development Application

DP Deposited Plan

DSI Detailed Site Investigation
EIL Ecological Investigation Level
ENM Excavated Natural Material

EPA Environment Protection Authority NSW

ESL Ecological Screening Level

F1 TRH $C_6 - C_{10}$ less the sum of BTEX concentrations (Ref. NEPM 2013, Schedule B1) F2 TRH $> C_{10} - C_{16}$ less the concentration of naphthalene (Ref. NEPM 2013, Schedule B1)

F3 TRH >C16-C34
F4 TRH >C34-C40
FFL Finished Floor Level

GIL Groundwater Investigation Level GME Groundwater Monitoring Event

GSW General Solid Waste

HIL Health-based Investigation Level HSL Health-based Screening Level

km Kilometres

LEP Local Environmental Plan LGA Local Government Area

m Metres

NATA National Association of Testing Authorities, Australia

NEPC National Environmental Protection Council
NEPM National Environmental Protection Measure

NSW New South Wales

OCP/OPP Organochlorine and Organophosphorus Pesticides

PAHs Polycyclic Aromatic Hydrocarbons
PFAS Per- and Poly-Fluoroalkyl Substances

PID Photo-ionisation Detector

ppm Parts Per Million

PQL Practical Quantitation Limit (limit of detection for respective laboratory instruments)

QA/QC Quality Assurance / Quality Control

SIL Soil Investigation Level SMNW Metro North West

SRA Sample receipt advice (document confirming laboratory receipt of samples)

SWL Standing Water Level

TP Test Pit

TPH Total Petroleum Hydrocarbons (superseded term equivalent to TRH)

TRH Total Recoverable Hydrocarbons (non-specific analysis of organic compounds)

UCL Upper Confidence Limit of the mean UPSS Underground Petroleum Storage System

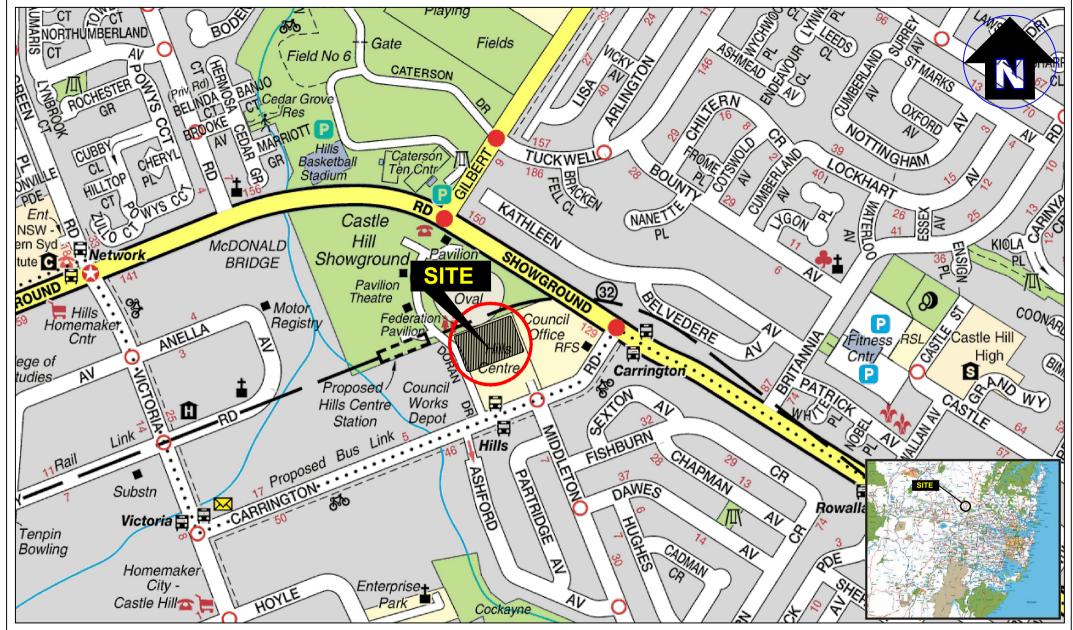


USEPA United States Environmental Protection Agency

UST Underground Storage Tank
VENM Virgin Excavated Natural Material
VOC Volatile Organic Compounds



Appendix A - Figures





Drawn:	AM.H.
Approved:	L.W.
Date:	21-05-21
Scale:	Not To Scale

Deicorp Projects Showground Pty Ltd

Detailed Site Investigation 2 Mandala Parade, Castle Hill NSW Site Locality Plan Figure:

1

Project: E24724.E02



Approximate Site Boundary

Approximate Sydney Metro Tunnel

Approximate Showground Station Footprint

Approximate 1st & 2nd tunnel reserve extents 5m & 25m away from the tunnel boundaries

□ ○ ○

Approximate test pit location

Approximate borehole / monitoring well location

Approximate borehole location



Drawn:		AM.H.	
Approv	ed:	L.W.	
Date:		21-05-21	

Deicorp Projects Showground Pty Ltd

Detailed Site Investigation 2 Mandala Parade, Castle Hill NSW Sampling Location Plan

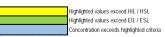
Project: E24724.E02

Appendix B - Tables



Table T1 – Summary of Soil Test Results E24724 - Castle Hill

					Priorit	ty Metals					ı	PAHs			В	TEX				TF	RHs			Pesti	cides	Asbestos	
Sample ID	Sampling Date	As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn	Carcinogenic PAHs (as B(a)P TEQ)	Benzo(ɑ)pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	F1	F2	23	F4	C6-C9	C10-C36	0CPs	OPPs	PCBs	Presence / absence
Fill BH1_0.1-0.2	8/07/2020	5	< 0.3	8.8	9.8	12	<0.05	5.4	16	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH2_0.1-0.2	9/07/2020	4	< 0.3	14	21	11	< 0.05	17	27	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH2_1.2-1.3 BH3M_0.1-0.2	-	7 5	<0.3	25 24	9.2	12 14	<0.05 <0.05	2.9 6.9	6.9	<0.3 N.A.	<0.1 N.A.	<0.8 N.A.	<0.1 N.A.	<0.1 N.A.	<0.1 N.A.	<0.1 N.A.	<0.3 N.A.	<25 N.A.	<25 N.A.	<90 N.A.	<120 N.A.	<20 N.A.	<110 N.A.	N.A.	N.A.	N.A.	N.A.
BH3M_0.7-0.8	13/07/2020	3	<0.3	16	16	16	<0.05	10	26	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH3M_1.7-1.8		4	< 0.3	13	12	17	<0.05	7.8	32	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH4M_0.3-0.5 BH4M_1.4-1.5	14/07/2020	6 2	< 0.3	15 6.3	19 2.8	16 6	<0.05 <0.05	8.5 0.9	35 5.3	<0.3	<0.1 <0.1	<0.8	<0.1 <0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 N.A.	<1.7 N.A.	<1 N.A.	No N.A.
BH4M_2.9-3.0		5	< 0.3	18	5.3	10	< 0.05	3.6	9.5	< 0.3	< 0.1	<0.8	<0.1	< 0.1	<0.1	< 0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH5M_0.1-0.2 BH5M_1.5-1.6	16/07/2020	6	<0.3	9.5 11	14 14	11 11	<0.05 <0.05	7.2 16	22 24	<0.3	0.5 <0.1	<0.8	<0.1	<0.1 <0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 N.A.	<1.7 N.A.	<1 N.A.	No N.A.
BH6_0.1-0.2	20/07/2020	4	<0.3	12	15	23	<0.05	9.9	45	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP7_0.1-0.2		4	< 0.3	11	24	12	<0.05	13	34	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP8_0.1-0.2 TP9_0.1-0.2	+	5 4	<0.3	24 8.4	26 16	12 11	<0.05 <0.05	18 5.7	27 22	<0.3	<0.1	1.7 <0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7	<1 <1	No No
TP10_0.1-0.2		4	< 0.3	14	16	12	< 0.05	10	31	< 0.3	<0.1	<0.8	<0.1	< 0.1	<0.1	< 0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP11_0.1-0.2 TP11_0.8-0.9	4	2	< 0.3	42 29	12 130	12	<0.05 <0.05	10 34	39 39	<0.3	0.1 <0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
TP12_0.1-0.2	1	4	<0.3	11	22	15	<0.05	20	42	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP12_0.8-0.9		3	<0.3	12	19	13	<0.05	18	38	< 0.3	0.1	1.2	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP12_1.7-1.8 TP13_0.1-0.2	-	3	<0.3	12 8.1	13 9.4	13 10	<0.05 <0.05	10 8.6	25 20	<0.3	<0.1 <0.1	<0.8	<0.1 <0.1	<0.1 <0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
TP13_1.2-1.3	8/07/2020	4	< 0.3	10	14	13	< 0.05	8.3	28	< 0.3	<0.1	<0.8	<0.1	< 0.1	< 0.1	< 0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP13_2.0-2.1 TP14_0.1-0.2	4	5 4	<0.3	14 13	12 15	17 14	<0.05 <0.05	8.2 13	28 35	<0.3	<0.1	<0.8 0.8	<0.1 <0.1	<0.1 <0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
TP15_0.1-0.2	1	3	<0.3	11	15	16	<0.05	9.3	87	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP15_1.7-1.8]	4	< 0.3	16	22	15	< 0.05	6.8	36	< 0.3	0.1	1.7	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	280	370	<20	430	<1	<1.7	<1	No
TP16_0.1-0.2 TP17_0.1-0.2	-	3	<0.3	15 10	24 12	9	<0.05 <0.05	18 9.8	50 32	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7	<1 <1	No No
TP18_0.1-0.2		3	<0.3	9.1	12	11	< 0.05	9	30	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP18_1.8-1.9 TP19_0.1-0.2	_	6	<0.3	11 32	16 23	14 11	<0.05 <0.05	9.2	44	< 0.3	<0.1	<0.8	<0.1	<0.1 <0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
11-19_0.1-0.2		4	<0.3	32	23	- "	<0.05	15	43	<0.5	<0.3 <0.1 <0.8 <0.1 Statistical Analysis				V0.1 V0.1 V0.3			<20	<20	<90	<120	<20	<110	110 (1 (1.7			100
Maximum cor	oncentration	7	< 0.3	42	130	23	< 0.05	34	87	8.0	0.5	8	<0.1	<0.1	< 0.1	<0.1	< 0.3	<25	<25	280	370	<20	430	<1	<1.7	<1	No
Natural BH1_0.7-0.8	8/07/2020	6	< 0.3	7.9	8.9	14	<0.05	0.8	7.8	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH2_1.6-1.7	9/07/2020	14	< 0.3	9.8	2.9	21	< 0.05	<0.5	2.4	< 0.3	<0.1	<0.8	<0.1	<0.1	< 0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
BH3M_2.8-2.9 BH4M_4.9-5.0	13/07/2020 14/07/2020	2	<0.3	13 4.5	14 2.7	5	<0.05 <0.05	3.5 4	17 25	<0.3	<0.1 <0.1	<0.8	<0.1 <0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 N.A.	<1.7 N.A.	<1 N.A.	No N.A.
BH5M_1.9-2.0	16/07/2020	4	<0.3	15	3.8	8	<0.05	2.3	6.8	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<25	<90	<120	<20	<110	N.A. <1	<1.7	N.A. <1	No.
BH6_1.4-1.5	20/07/2020	1	< 0.3	2.5	0.6	2	<0.05	<0.5	<2	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	< 0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP7_1.3-1.4 TP8_0.9-1.0	1	14 5	< 0.3	20 4.6	9.6 6.9	17 18	<0.05 <0.05	<0.5 <0.5	7.1	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
TP9_1.2-1.3	8/07/2020	<1	< 0.3	2.3	2.1	15	<0.05	<0.5	<2	< 0.3	< 0.1	<0.8	<0.1	<0.1	< 0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
TP14_1.5-1.6 TP19_1.4-1.5	4	5	<0.3	6.1	<0.5 1.9	5 13	<0.05 <0.05	<0.5 0.7	<2 2.9	<0.3	<0.1 <0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25 <25	<25 <25	<90 <90	<120 <120	<20 <20	<110 <110	<1 <1	<1.7 <1.7	<1 <1	No No
11-17_1.4-1.3		, ,	(0.0	10	1.7	15	40.03	0.7	2.7	(0.5	VO.1		al Analysis	V0.1	V0.1	V0.1	40.3	123	123	٧,0	(120	120	<110		\$1.7	,	140
Maximum cor	oncentration	14	< 0.3	20	14	21	< 0.05	4	25	< 0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	< 0.3	<25	<25	<90	<120	<20	<110	<1	<1.7	<1	No
				100			T					NEPM (20	13) Criteria														
HIL A - Residential with g	garden / accessible soil	100	20	100 Cr(VI)	6,000	300	40	400	7,400	3		300												240		1	
HIL B - Residential with	h minimal soil access	500	150	500	30,000	1,200	120	1,200	60,000	4		400												600		1	
THE D - NOSIGORIUS WITH	Timumui 3011 decess	500	150	Cr(VI) 300	30,000	1,200	120	1,200	00,000			400												000			
HIL C - Rec	creational	300	90	Cr(VI)	17,000	600	80	1,200	30,000	3		300												400		1	
HIL D - Commerci	rcial / industrial	3,000	900	3,600 Cr(VI)	240,000	1,500	730	6,000	400,000	40		4,000												3,600		7	
				CI(VI)		Source	depths (0 m to	o <1 m. BGL)					5	0.7	480	NL	110	50	280								
HSL A & B - Low to hig							depths (1 m to						NL	1	NL	NL	310	90	NL								0.01 /
Soil texture class	Sincation – Clay						depths (2 m to urce depths (4 i						NL NL	3	NL NL	NL NL	NL NL	150 290	NL NL								0.001
						Source	depths (0 m to	o <1 m. BGL)					NL	NL	NL	NL	NL	NL	NL								
HSL C - Recreation Soil texture class							depths (1 m to						NL	NL	NL NL	NL NL	NL NL	NL NL	NL NL								0.02 / 0.001
Son texture class	Silication – Oldy						urce depths (4 i						NL NL	NL NL	NL NL	NL NL	NL NL	NL NL	NL NL								0.001
							depths (0 m to						NL	4	NL	NL	NL	310	NL								
HSL D - Commer Soil texture class							depths (1 m to depths (2 m to						NL NL	6	NL NL	NL NL	NL NL	480 NL	NL NL								0.05 / 0.001
							urce depths (4						NL	20	NL	NL	NL	NL	NL								Á
EILs / ESLs - Urban Resid Space		100		410	180	1,100		100	450		0.7		170	65	105	125	45	180	120	1,300	5,600			180			
Management Limits – Res	esidential, parkland and		L					4		L	A	L	A					800	1,000	3,500	10,000						
public open	n space 1										NCW	EDA (2014) M	o Classificati	on Critoria				000	1,000	3,300	10,000						
	CT1 (mg/kg)	100	20	100		100	4	40			0.8	EPA (2014) Wast 200	e ciassificății	on Criteria 10	288	600	1,000					650	10,000	<50	250	<50	
General Soild Waste	TCLP1 (mg/L) /	5 / 500	1 / 100	5 / 1,900		5 / 1,500	+	2 / 1,050			0.04 / 10	NR / 200		0.5 / 18	14.4 / 518	30 / 1,080	50 / 1,800					NR / 650	NR /	NR / <50	NR / 250	NR / <50	1
	SCC1 (mg/kg)			<u> </u>			+																10,000			-	If detected material is
Restricted Solid Waste	CT2 (mg/kg) TCLP2 (mg/L) /	400	80	400		400	16	160			3.2	800 ND (800		40	1,152 57.6 /	2,400	4,000					2,600	40,000 NR /	NR NR	1,000	NR NR	Special Waste -
	SCC2 (mg/kg)	20 / 2,000	4 / 400	20 / 7,600		20 / 6,000	0.8 / 200	8 / 4,200			0.16 / 23	NR / 800		2 / 72	2,073	120 / 4,320	200 / 7,200			l		NR / 2,600	40,000	NR / <50 > 2 mg/kg -	NR / 1,000	NR / <50	Asbestos Waste
Special Waste / So	Scheduled Waste																							Scheduled		> 2 mg/kg - PCB Waste '	1
	Maximum Average			_		_																		Waste ³			
NSW EPA	Concentration (mg/kg)	20	0.5	75	100	50	0.5	30	150		0.5	20											250				
ENM Order ⁵	Absolute Maximum Concentration	40	1	150	200	100	1	60	300		1	40		0.5	65	25	15						500				
	(mg/kg)	1	ĺ			1	1	1	1			Ī		8	1	1	1						No.				



NEPC 1999 Amendment 2013 'HIL A' - Health based Residential with garden / accessible soil, also includes children's day care centres, preschools and primary schools.

NEPC 1999 Amendment 2013 'HIL B' - Health based Residential with minimal opportunities for soil access including dwellings with fully and permanenetly paved yard space such as high-rise buildings and apartments.

NEPC 1999 Amendment 2013 'HIL D' - Health based commercial / industrial settlings.

NEPC 1999 Amendment 2013 'HIL D' - Health Based Screening Levels applicable for vapour intrusion values applicable for low-high density residential settlings.

NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels applicable for vapour intrusion values applicable for recreational/open space settlings.

NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels applicable for vapour intrusion values applicable for commercial / industrial settlings.

NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels applicable for vapour intrusion values applicable for commercial / industrial settlings.

Ecological Investigation Level for urban residential and public open space land use.

NSW EPA 2014 General Solid Waste Thresholds, in Waste Classification Guidelines, Table 1 (CT1) and Table 2 (TCLP1 / SCC1)

NSW EPA 2014 Restricted Solid Waste Thresholds, in Waste Classification Guidelines, Table 1 (CT2) and Table 2 (TCLP2 / SCC2) HIL B
HIL C
HIL D
HSL A & B
HSL C
HSL C
HSL C
GSW
RSW
NA
NL
NC
1
2

Not Analysed

Not Analysed

Not Analysed

Not Inality if the derived soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical

Not calculated

As strata is predominantly clay, fine grained soil assessment criteria values were applied.

EIUFSL were calculated based on the average results of pH (6.1) and CEC (7.8 meg/100g) for a high traffic NSW suburb.

NSW EPA Scheduled Chemical Wastes Chemical Control Order 2004. Section 4.14 NSW EPA Polychlorinated Biphenyl (PCB) Chemical Control Order 1997. Where PCBs are reported at concentrations >2 mg/kg and <50 mg/kg, material is non-scheduled PCB waste. Where PCBs are reported at concentrations >50 mg/kg, material is scheduled PCB waste. ENM Exemption and Order (NSW EPA, 2014).
To obtain 15 subtract the sum of ETEX concentrations from the C6-C10 fraction.
To obtain 15 subtract he sum of ETEX concentrations from the <C10-C16 fraction.

5 F1 F2 F3 F4 (>C16-C34) (>C34-C40)

		Electrical			Adopted		Cation Exchange Capacity	Evchangoahla Sodium		С	ations (mg/kg	Anions	(mg/kg)			
Sample	рН	Conductivity (EC - µs/cm)	Soil Texture	ECe (μS/cm)	Multiplication Factor	ECe (dS/m)	(CEC - meq/100)	Percentage (%)	Ca	Mg	Na	К	Mn	Chloride	Sulfate	Soil Salinity Class ¹
BH2_1.9-2.0	4.6	73	Sandy Clay	657	9	0.657	3.6	11.7	1900	590	170	280	51	18	110	Non-Saline
BH2_2.9-3.0	4.7	85	Sandy Clay	765	9	0.765	13	3.4	4400	1300	320	340	110	16	130	Non-Saline
BH3M_2.8-2.9	9.4	130	Sandy Clay Loam	1170	9	1.17	17	2.2	3400	650	130	240	47	22	92	Non-Saline
BH4M_4.4-4.5	5.5	60	Loamy Sand	840	14	0.84	2.9	27.5	1100	350	290	320	13	6.5	83	Non-Saline
BH4M_4.9-5.0	6.1	47	Loamy Sand	658	14	0.658	2.3	27.3	66	120	170	280	5	10	64	Non-Saline
¹ DLWC (2002)																



Table T2 - Summary of Groundwater Analytical Results

						Met	als					PAHs				ВТЕХ				TR	RHs			VC)Cs			EC (μS/cm) 1,200 980 4,100 NA 4,100
Sample II	D	Sampling Date	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	Total PAHs	Benzo(a)pyrene	Naphthalene	Benzene	Toluene	Ethylbenzene	o-xylene	m/p-xylene	F1	F2	F3	F4	Chloroform (THM) *	Bromodichloromethane (THM) *	Dibromochloromethane (THM) *	Total VOC	рН	
Detailed Site Investigation																												
ВНЗМ-а			<1	<0.1	1	22	<1	<0.1	26	74	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	<60	<500	<500	9.2	2.3	0.6	13	5.1	
BH4M-a	ı	29/7/2020	<1	<0.1	170	24	<1	<0.1	3	21	<1	<0.1	<0.1	<0.5	<0.5	<0.5	< 0.5	<1	52	<60	<500	<500	39	6.6	1.6	48	6.3	
BH5M			1	0.2	3	23	11	<0.1	27	180	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	<50	76	<500	<500	1.7	<0.5	<0.5	<10	4.6	
BH4M-a	1	18/8/2020	2	0.2	1	22	30	<0.1	38	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			Ι .	T	T				T	T		Statistica	,		1				T				T	l	l			1
Maximun	m Concentration		2	0.2	170	24	30	<0.1	38	240	<1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<1	52	76	<500	<500	39	6.6	1.6	48	6.3	4,100
			Γ				2 4	.4				GI		800	l	L	NL	- NII	1 000	4 000								
HSL A & B - Low t			2m to <4m 4m to <8m										NL NL	800	NL NL	NL NL	NL NL	NL NL	1,000	1,000								
Soil texture of	classification – Sa	and	8m+										NL	900	NL NL	NL	NL NL	NL	1,000	1,000								
							2m to						NL	NL NL	NL NL	NL	NL	NL	NL	NL								
	eational / open sp		4m to <8m										NL	NL	NL	NL	NL	NL	NL	NL								
Soil texture of	classification – Sa	and	8m+										NL	NL	NL	NL	NL	NL	NL	NL								
			2m to <4m									NL	5,000	NL	NL	NL	NL	6,000	NL									
	mmercial / industr		4m to <8m										NL	5,000	NL	NL	NL	NL	6,000	NL								
Soil texture t	Soil texture classification – Sand						8m-	+					NL	5,000	NL	NL	NL	NL	7,000	NL								
	Fresh Wa	aters ¹	24 (AsIII) 13 (AsV)	0.2	1 ³ (Cr VI)	1.4	3.4	0.06 ²	11	8 ³			16	950	180 ⁴	80 ⁴	350	275 ⁴	50 ⁵	60 ⁵	500 ⁵	500 ⁵						
GILs	Marine W	aters 1		0.7 ²	27 (Cr III) 4.4 (Cr IV)	1.3	4.4	0.1 ²	7	15 ³			50 ³	500 ³	180 ⁴	5 ⁴	350 ⁴	275 ⁴	50 ⁵	60 ⁵	500 ⁵	500 ⁵						
	Recreationa	al Water 6	100	20		1,000 *	100	10	200	3,000*				10	25*	3*	20 *	20 *						2,500				

Notes:

Highlighted indicates criteria exceeded

All values are µg/L unless stated otherwise

HSL A & B NEPC 1999 Amendment 2013 'HSL A & B' Health Based Screening Levels for vapour intrusion applicable for low-high density residential settings.

HSL C NEPC 1999 Amendment 2013 'HSL C' Health Based Screening Levels for vapour intrusion applicable for recreational/open space settings.

HSL D NEPC 1999 Amendment 2013 'HSL D' Health Based Screening Levels for vapour intrusion applicable for commercial / industrial settings.

NL Not Limiting

NA 'Not Analysed' i.e. the sample was not analysed.

ND Not Detected - i.e. concentration below the laboratory PQL

F1 To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.

F2 To obtain F2 subtract naphthalene from the >C10-C16 fraction.

F3 (>C16-C34) F4 (>C34-C40)

* Only thoes VOC values above the laboratory PQL have been tabulated.

1 NEPM (2013) Groundwater Investigation Levels for fresh and marine water quality, based on ANZECC & ARMCANZ (2000).

2 Chemical for which possible bioaccumulation and secondary poisoning effects should be considered, refer to ANZG (2018) for further guidance.

3 Figure may not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance

Low reliability toxicity data, refer to ANZECC & ARMCANZ (2000)

In lack of a criteria the laboratory PQL has been used (DEC, 2007).

Based on NHMRC (2011 - update August 2018 v.3.5) Drinking Water Guidelines. The lowest of the Health Guideline x10 or the Aesthetic Guideline has been chosen as the assessment criteria. Aesthetic based criteria have been indicated by *

Table J-2 Summary of QA/QC results for Investigation samples

Table 3-2 Summary of QAVQC results for			TRH BTEX Heavy Metals														-	
l 6				TI	RH.			ВТ	EX	1				Heavy	Metals			
Sample identification	Sampled Date	Description	¥14	F2**	F3 (>C ₁₆ - C ₃₄)	F4 (>C ₃₄ - C ₄₀)	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Du	plicate				•	•				•					•			
TP8_0.1-0.2	8/7/2020	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	5	<0.3	24	26	12	<0.05	18	27
QD1	8/1/2020	Replicate of TP8_0.1-0.2	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	19	21	12	< 0.05	15	27
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.22	0.00	23.26	21.28	0.00	0.00	18.18	0.00		
TP17_0.1-0.2	8/7/2020	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	10	12	12	< 0.05	9.8	32
QD2	0/1/2020	Replicate of TP17_0.1-0.2	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	9.9	12	13	< 0.05	12	33
	RPD				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	8.00	0.00	20.18	3.08
ВН3М-а	29/7/2020	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	1	22	<1	<0.1	26	74
GWQD1	20/1/2020	Replicate of BH3M-a	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	1	<0.1	1	26	<1	<0.1	25	71
	RPD				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	0.00	3.92	4.14
Inter-laboratory Du	plicate																	
TP8_0.1-0.2	8/7/2020	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	5	<0.3	24	26	12	<0.05	18	27
QT1		Replicate of TP8_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<3	4	<0.4	31	26	18	<0.1	18	33
	RPL		0.00	NA	NA	NA	NA	NA	NA	NA	22.22	NA	25.45	0.00	40.00	NA	0.00	20.00
TP17_0.1-0.2	8/7/2020	Fill	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	10	12	12	< 0.05	9.8	32
QT2		Replicate of TP17_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<3	8	<0.4	29	35	28	<0.1	26	72
	RPL	ס	0.00	NA	NA	NA	NA	NA	NA	NA	66.67	NA	97.44	97.87	80.00	NA	90.50	76.92
BH3M-a	29/7/2020	Groundwater	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	1	22	<1	<0.1	26	74
GWQT1		Replicate of BH3M-a	15	<50	<100	<100	<1	<1	<1	<3	<1	0.2	1	7	<1	< 0.05	24	100
	RPD		175.00	NA	NA	NA	NA	NA	NA	NA	0.00	80.00	0.00	103.45	0.00	NA	8.00	29.89
QTB1		Trip blank	-	-	-	-	<0.1	<0.1	<0.1	<0.3	-	-	-	-	-	-	-	-
QTS1	8/7/2020	Trip spike	-	-	-	-	[87%]	[89%]	[90%]	[91%]	-	-	-	-	-	-	-	-
QR1		Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5
GWTB1]	Trip blank	-	-	-	-	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-	-
GWTS1	29/7/2020	Trip spike	-	-	-	-	[99%]	[99%]	[99%]	[99%]	-	-	-	-	-	-	-	-
GWQR1		Rinsate	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5

Indicates values where a single result is found to be less than detection, with the duplicate sample found to be over the detection limit. RPD exceeds 30-50% range referenced from AS4482.1 (2005)

NOTE:

All soil results are reported in mg/kg . All water results are reported in $\mu g/L$.

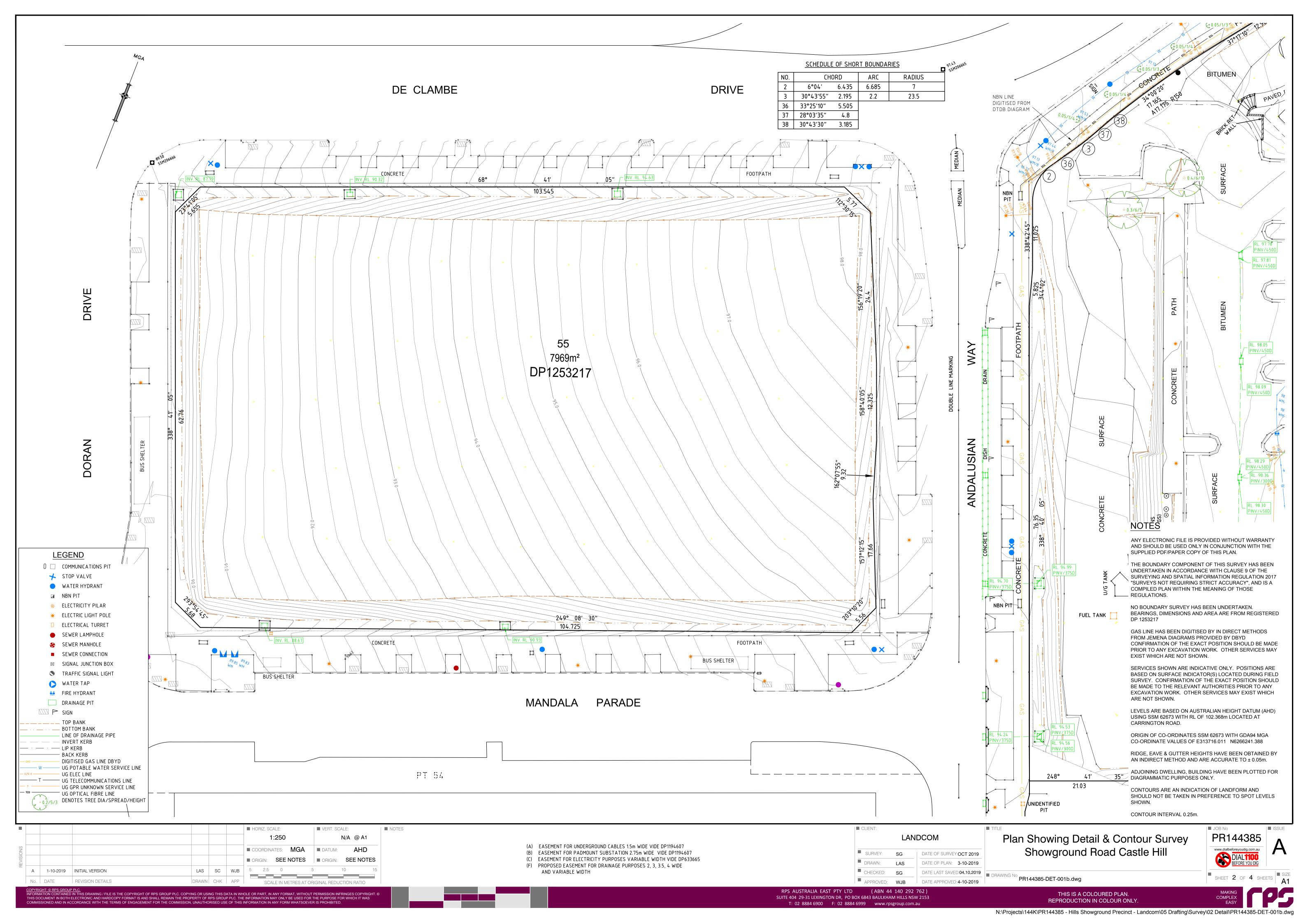


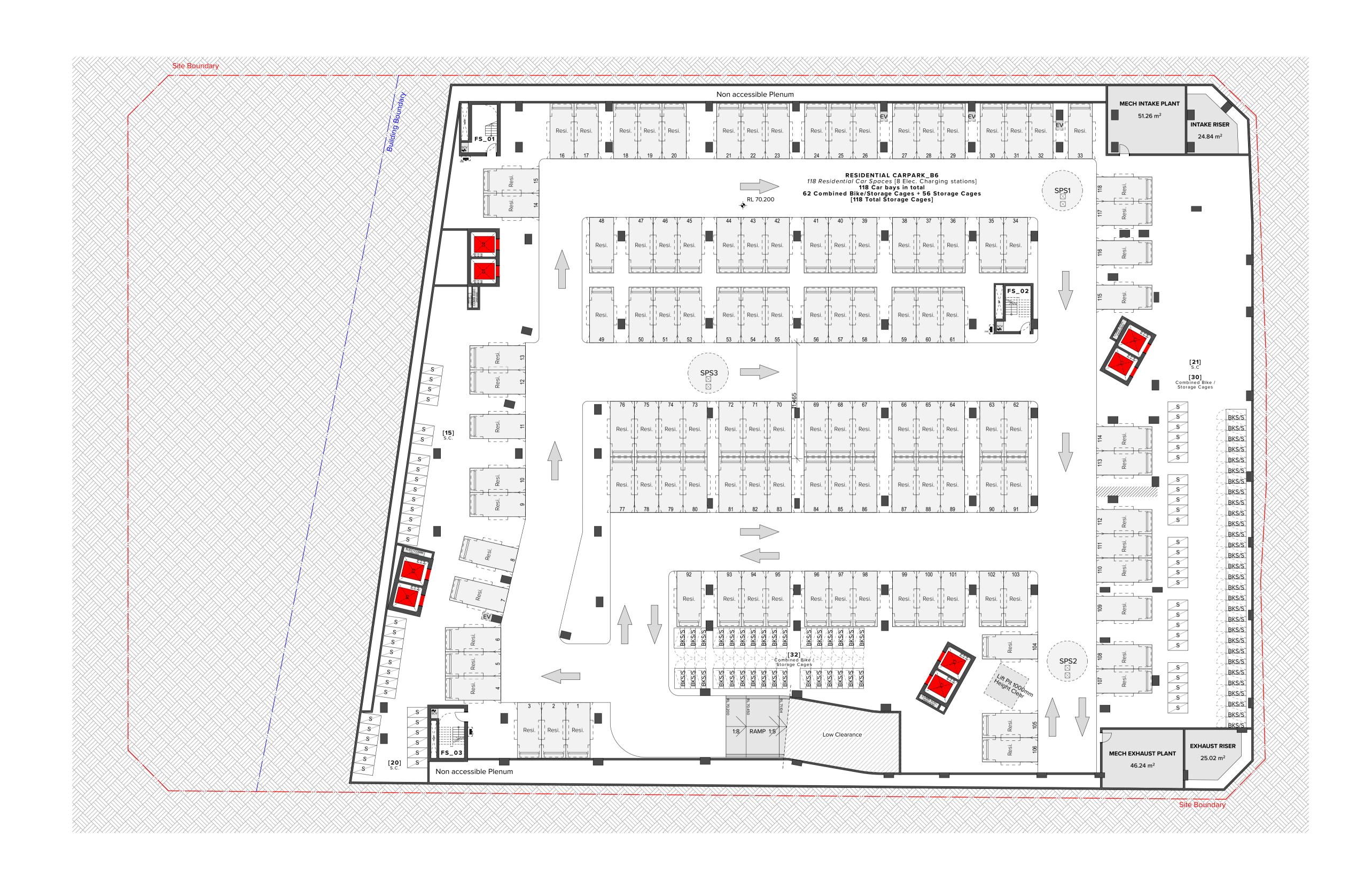
 $^{^{\}star}$ - to obtain F1 subtract the sum of BTEX concentrations from the $C_6\text{-}C_{10}$ fraction

^{** -} to obtain F2 subtract naphthalene from the > C_{10} - C_{16} fraction

Appendix C - Development Plans







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JMC Draft DA for Review

JMC Retail Update

JMC DA Submission Rev Date a 07.06.21 01 25.06.21 02 06.07.21

Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA PLANS**

Drawing Title

Basement 06

1:200 @A1, 50%@A3 AM, VT, JL, JE Rev DA-110-002



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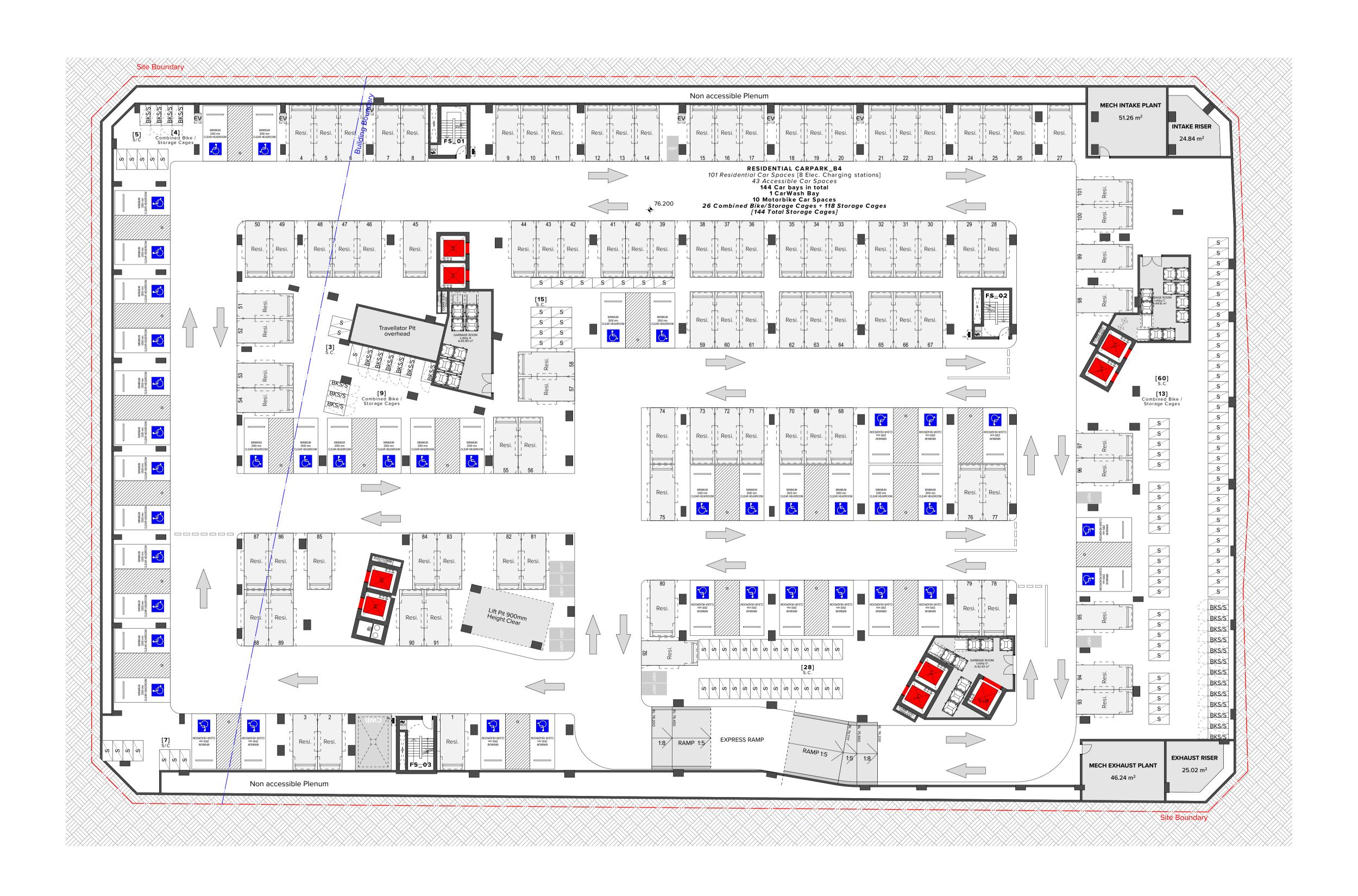
JMC DA Submission Rev Date a 07.06.21 01 25.06.21 02 06.07.21

Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA PLANS**

Drawing Title

Basement 05

AM, VT, JL, JE Rev 1:200 @A1, 50%@A3 DA-110-003



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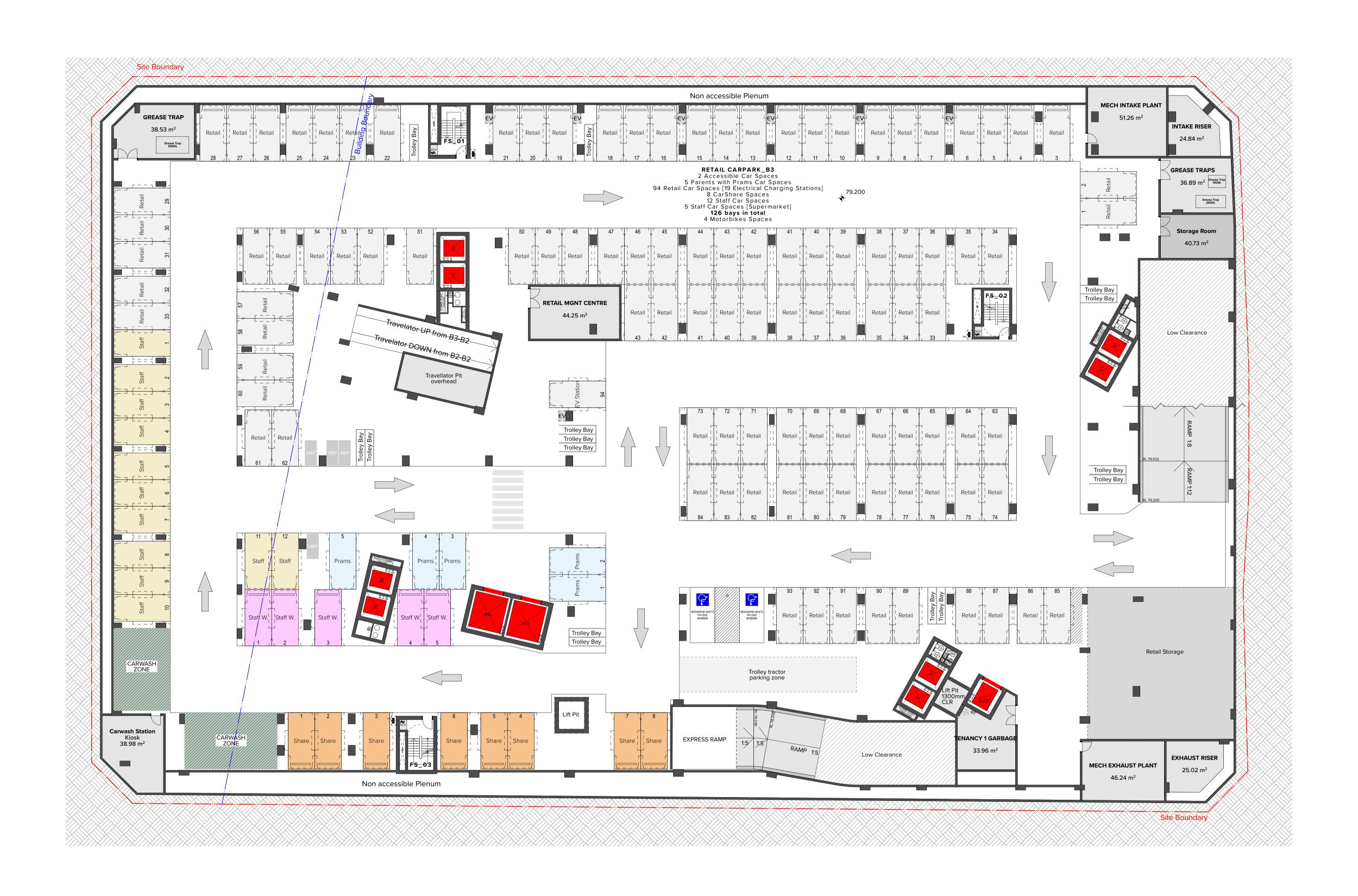
Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA PLANS**

Drawing Title

Basement 04

AM, VT, JL, JE Rev 1:200 @A1, 50%@A3 DA-110-004

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 25.06.21
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 02
 06.07.21
 JMC
 DA Submission

Project Title

Doran Drive

Doran Drive, Castle Hill Castle Hill NSW 2154 Australia

Drawing Title

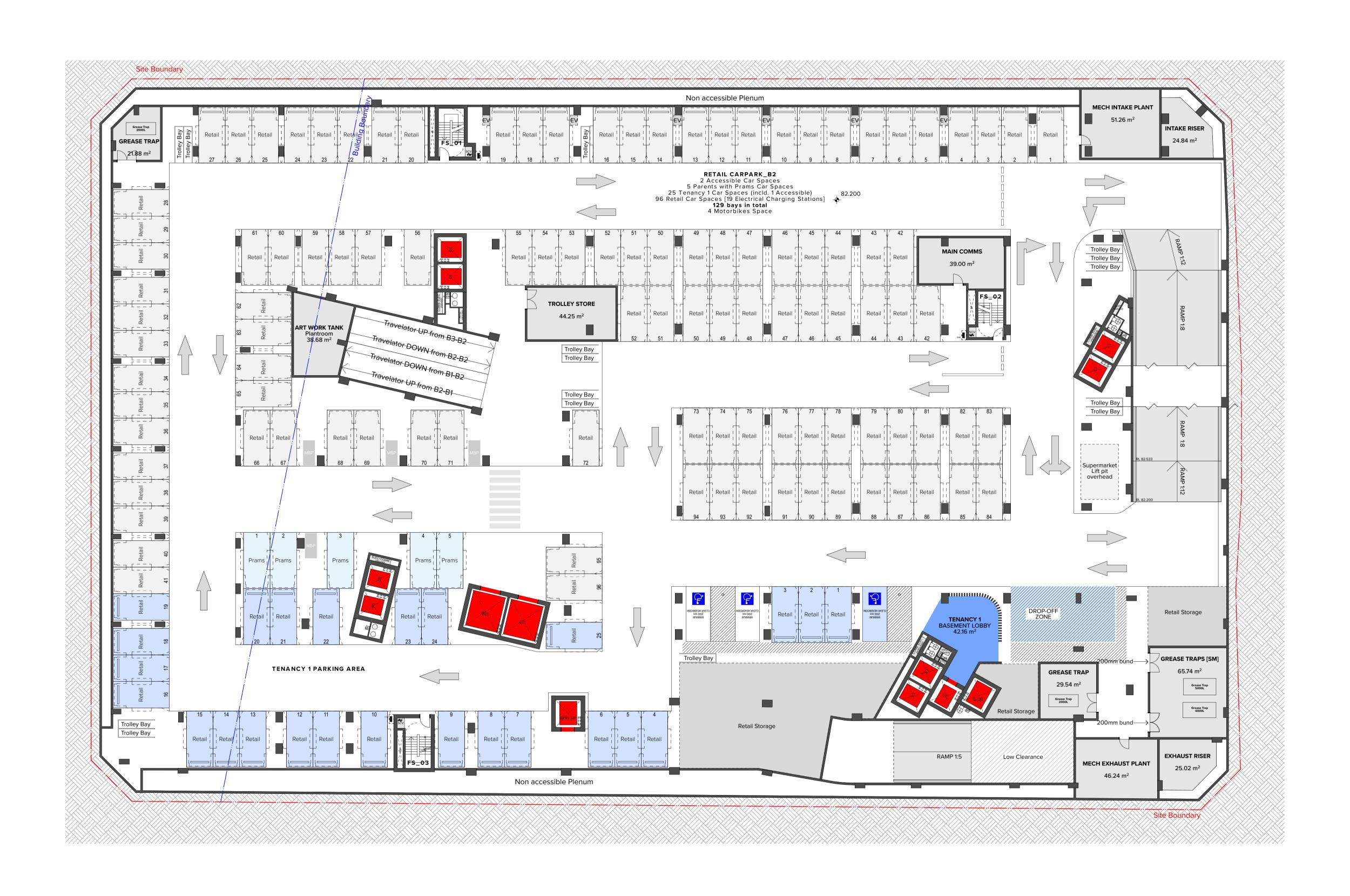
GA PLANS

Basement 03

Scale Project No. Drawn by North

1:200 @A1, 50%@A3
Status DA Submission DA-110-005 02

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Project Title

Doran Drive

Doran Drive, Castle Hill Castle Hill NSW 2154 Australia

Drawing Title

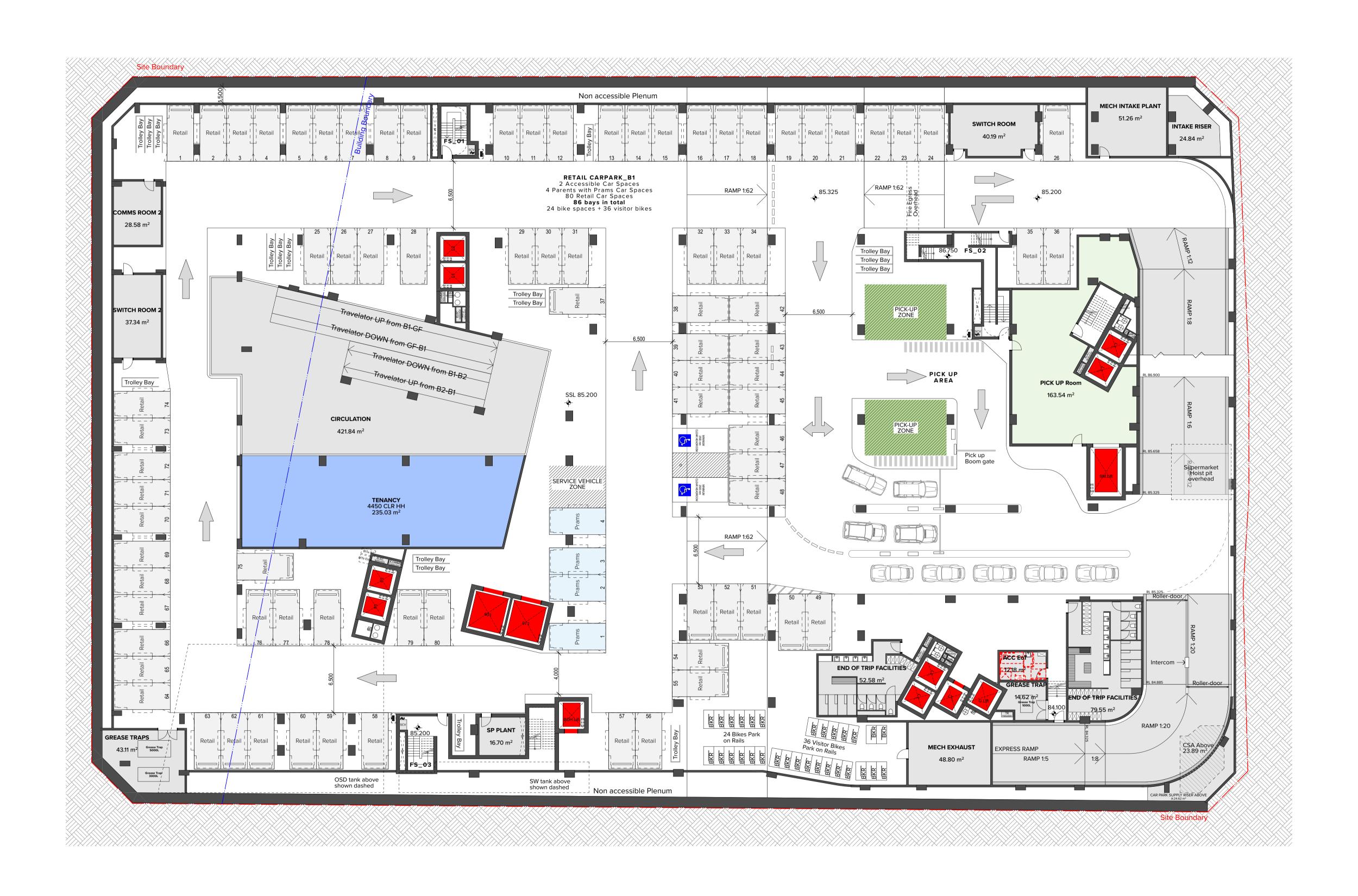
GA PLANS

Basement 02

Scale Project No. Drawn by North

1:200 @A1, 50%@A3
Status DA Submission DA-110-006 02

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Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA PLANS**

Drawing Title

Basement 01

1:200 @A1, 50%@A3 AM, VT, JL, JE Rev DA-110-007

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Doran Drive, Castle Hill Castle Hill NSW 2154 Australia Drawing Title **GA PLANS Ground Level**

AM, VT, JL, JE Rev 1:200 @A1, 50%@A3 DA-110-008



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Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia Drawing Title **GA PLANS**

Upper Level

1:200 @A1, 50%@A3 AM, VT, JL, JE
Rev DA-110-009



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 04
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Project Title

Doran Drive

Doran Drive, Castle Hill Castle Hill NSW 2154 Australia

Drawing Title

GA PLANS
Level 02

Scale
1:200 @A1, 50%@A3
Status
DA Submission
Project No.
19068
AM, VT, JL, JE
Rev

DA-110-020
04

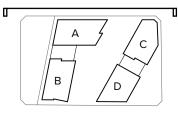
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Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA ELEVATIONS**

North Elevation

1:200 @A1, 50%@A3 ____AG, VT, JB DA-210-101

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DLCS Quality Endorsed Company ISO 9001:2015, Registration Number 20476 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911



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JMC Draft DA for Review

JMC For Coordination

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Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA ELEVATIONS**

West Elevation

1:200 @A1, 50%@A3 DA-210-201

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GC1 Glass clear, Framing System, aluminium, Powder coat finish, Framing colour to match PCF1
GC2 Glass clear, Framing System, aluminium, Powder coat finish, Framing colour to match PCF2 GC7 Colour-back glass panel Framing
System, aluminium, Powder coat finish,
Framing colour to match PCF1, Colour
back panel to match PCF1, Colour
Similar
Similar

Paint finish White Colour to match
SG5 Mall/Car park directional:
Dulux "Dulux Natural White" or
Similar Wertical 10 x 100 Steel Balustrade.
Powder coat finish, colour and finish to match PCF1 GC8 Glass clear Louvers, Framing System, aluminium, Powder coat finish, Framing colour to match PCF1 External Sign - The corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and Mandala Parade (SG6) Car park Entry/Exit Signage Corner of Doran Drive and SC2 Horizontal Aluminium Louver screen, finish to match PCF1 GC3 Glass clear, Framing System, aluminium, Powder coat finish, Framing colour to match PCF4 SC3 Horizontal Aluminium Louver screen, finish to match PCF2 GC9 Glass clear Curtain Wall System SG2 External Sign - The corner of Doran Drive and De Clambe Drive SG7 External Sign - Online Pic Signage CPC5 Smooth finish concrete precast Wall Element, Charcoal finish GC4

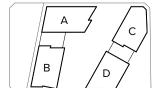
Colour-back glass panel Framing
System, aluminium, Powder coat finish,
Framing colour to match PCF2, Colour
back panel to match PF1

Colour-back glass panel Framing
System, aluminium, Powder coat finish,
Framing colour to match PCF1, Colour
back panel to match PF2

Colour-back glass panel Framing
System, aluminium, Powder coat finish,
Framing colour to match PCF1, Colour
back panel to match PCF1, Colour
back panel to match PF3 SC4 Vertical Aluminium Batten screen, finish to match PCF2 Brick Work Type 3
Red-blue Brick, Austral Bricks
"Bowral Blue" or Similar, Soldier Bond

Brick Work Type 9
Green Glazed Brick, Pyrolave
"Oregon" or Similar, Stretcher Bond PF1 Paint finish Dark grey Colour to match Dulux "Domino" or Similar SG3 External Sign - The corner of Andalusian Way and De Clambe Drive SC5 Horizontal Aluminium Louver screen, finish to match PCF4 CPC2 Decorative profile finish concrete precast spandrel, finish to match COF1 BW5 Brick Work Type 4
Pink Brick, Austral Bricks
"Allure Capri White" or Similar, Stretcher
Bond

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JMC Draft DA for Review JMC For Coordination
JMC DA Submission 02 01.07.21 03 06.07.21

Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA ELEVATIONS**

South Elevation

1:200 @A1, 50%@A3 ____AG, VT, JB DA-210-301

DLCS Quality Endorsed Company ISO 9001:2015, Registration Number 20476 Nominated Architect: Nicholas Turner 6695, ABN 86 064 084 911

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Approved by Revision Notes

JMC Draft DA for Review

JMC For Coordination

JMC DA Submission Rev Date 01 07.06.21 02 01.07.21 03 06.07.21

Doran Drive Doran Drive, Castle Hill Castle Hill NSW 2154 Australia **GA ELEVATIONS**

East Elevation

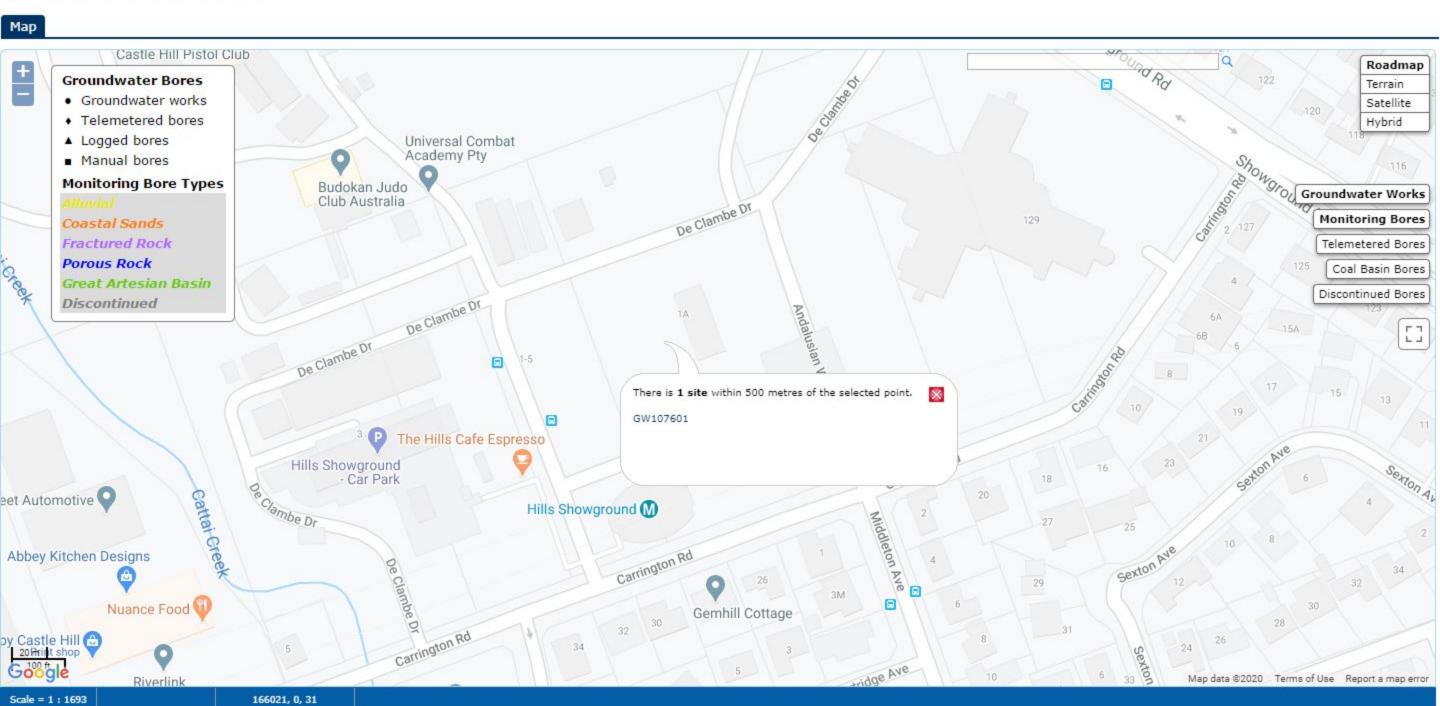
1:200 @A1, 50%@A3 DA-210-401

TURNER



GREATER SYDNEY REGION

All data times are Eastern Standard Time



Standing Water Level

Yield (L/s):

WaterNSW Work Summary

GW107601

Licence: 10BL160929 Licence Status: ACTIVE

> Authorised Purpose(s): MONITORING BORE Intended Purpose(s): MONITORING BORE

Work Type: Bore Work Status: Construct.Method: Owner Type:

Commenced Date: Final Depth: 35.34 m Drilled Depth: 35.34 m Completion Date: 24/10/2002

Contractor Name: JEFFERY & KATAUSKAS PTY LTD

Driller: Yoon Fook Chin

Assistant Driller:

Property: CASTLE HILL SHOWGROUND

NSW

GWMA: -Salinity Description: GW Zone: -

Site Details

Site Chosen By:

County **Parish** Cadastre Form A: CUMBERLAND CASTLE HI 199 752020 Licensed: CUMBERLAND CASTLE HILL PART LOT 199//752020

Region: 10 - Sydney South Coast CMA Map:

River Basin: - Unknown **Grid Zone:** Scale:

Area/District:

Latitude: 33°43'35.8"S Elevation: 0.00 m (A.H.D.) Northing: 6266332.000 Elevation Source: Unknown **Easting:** 313192.000 Longitude: 150°59'01.4"E

GS Map: -MGA Zone: 56 Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel

Pack: PC-Pressure Cemented: S-Sump: CE-Centralisers

Hole	Pipe	Component	Туре	From (m)	To (m)	Outside Diameter (mm)	 Interval	Details	
1		Hole	Hole	0.00	35.34	70		Unknown	
1	1	Casing	P.V.C.	0.00	35.34	50		Seated on Bottom, Glued	
1	1	Opening	Slots - Horizontal	0.00	35.34	50	0	PVC. SL: 0.5mm	

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.20		TOPSOIL	Topsoil	
1.20	20 35.34 34.14 SANDSTONE		SANDSTONE	Sandstone	

*** End of GW107601 ***

Warning To Clients: This raw data has been supplied to the WaterNSW by drillers, licensees and other sources. WaterNSW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Appendix E - Site Photography





Photograph 1: View of the eastern portion of the site.



Photograph 2: South-western corner of the site.





Photograph 3: Western boundary of the site.



Photograph 4: Southern boundary of the site.





Photograph 5: Northern boundary of the site.



Photograph 6: Doran Drive (west) and Mandala Parade (south).



Appendix F - Test Pit and Borehole Logs





BOREHOLE: BH1

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2
Job No. E24724.E02
Client Deicorp Pty Ltd

Surface RL 96.50 m Contractor Hagstrom

Drill Rig

Hydrapower Scout V (DR011)

 Sheet
 1 OF 1

 Date Started
 8/7/20 □

 Date Completed
 9/7/20 □

 Logged
 DS
 Date:8/7/20 □

Checked SR Date: 24/8/20 Inclination -90° Drilling Sampling **Field Material Description** JSCS SYMBOL MOISTURE CONDITION CONSISTENCY DENSITY RECOVERED STRUCTURE AND ADDITIONAL OBSERVATIONS GRAPHIC LOG SAMPLE OR FIELD TEST SOIL/ROCK MATERIAL DESCRIPTION DEPTH (metres) DEPTH RL 96.50 FILL FILL: Silty CLAY; low plasticity, pale grey to red-brown, with fine to coarse sandstone, igneous gravel and fine to medium grained sand, no odour. BH1_0.1-0.2 ES Μ **0.60** 95.90 RESIDUAL SOIL Silty CLAY; medium plasticity, pale grey, with fine to coarse ironstone gravel and fine to medium grained sand, grading to extremely weathered material, no odour. BH1_0.7-0.8 ES BH1_1.4-1.5 ES AD/1 **2.10** 94.40 BEDROCK SANDSTONE; fine to medium grained, pale grey and orange-brown, low to medium strength, slightly to distinctly weathered, no odour. М-Н 3.00 Borehole Terminated at 3.00 mBGL; Target Depth Reached. 5 6 8 9



BOREHOLE: BH2

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

 Position
 Refer to Figure 2

 Job No.
 E24724.E02

 Client
 Deicorp Pty Ltd

Surface RL 95.10 m
Contractor Hagstrom

Drill Rig

Hydrapower Scout V (DR011)
-90°

 Sheet
 1 OF 1

 Date Started
 9/7/20

 Date Completed
 10/7/20

 Logged
 DS
 Date:9/7/20

Checked SR Date: 24/8/20 Inclination Drilling Sampling **Field Material Description** JSCS SYMBOL MOISTURE CONDITION CONSISTENCY DENSITY RECOVERED STRUCTURE AND ADDITIONAL OBSERVATIONS SAMPLE OR FIELD TEST GRAPHIC LOG SOIL/ROCK MATERIAL DESCRIPTION DEPTH (metres) DEPTH RL 95.10 FILL FILL: Silty CLAY; low plasticity, dark brown, with fine to coarse, sub-rounded to angular sandstone and igneous gravel and fine to medium grained sand, no odour. BH2_0.1-0.2 ES Μ BH2_0.7-0.8 ES *1.00* 94.10 From 1.0 m, with weak odour. BH2 1.2-1.3 ES RESIDUAL SOIL Silty CLAY; medium plasticity, pale grey to red-brown, trace fine to medium ironstone gravels and rootlets, with weak odour. BH2 1.6-1.7 ES GWNE AD/T 2.00 93.10 BH2 1.9-2.0 ES From 2.0 m, no odour. M <PL) VSt BH2_2.4-2.5 ES **3.00** 92.10 BH2_2.9-3.0 ES Sandy CLAY; low plasticity, pale grey, grading to extremely weathered sandstone, no odour. BEDROCK M <PL Н **3.30** 91.80 SANDSTONE; fine to medium grained, pale grey and orange-brown, low to medium strength, slightly to distinctly weathered, no odour. М-Н 3.95 Borehole Terminated at 3.95 mBGL; Target Depth Reached. 5 8 9



BOREHOLE: BH3M

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

1 OF 1 Sheet Date Started 14/7/20 Position Surface RL 91.00 m Refer to Figure 2 Date Completed 14/7/20 Job No. E24724.E02 Contractor Hagstrom Logged DS Date:14/7/20 Client Deicorp Pty Ltd Drill Rig Hydrapower Scout V (DR011)

									Inclination -90°			Checked SR Date: 24/8/
			lling		Sampling	_			Field Material Desc			
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0 -	91.00	BH3M_0.1-0.2 ES			-	FILL: Silty CLAY; low plasticity, brown-dark grey to dark brown, with fine to coarse grained sand, fine to coarse, sub-rounded to angular sandstone and igneous gravel, trace rubber fragments, no odour.			FILL
			1-		BH3M_0.7-0.8 ES							
AD/T	-		- - -		BH3M_1.2-1.3 ES BH3M_1.7-1.8 ES					M	-	
		14/7/20	2		BH3M_2.2-2.3 ES							
			3-	2.60 88.40 2.90	BH3M_2.8-2.9 ES	_	(<u>X</u>)	С	Sandy CLAY; fine to medium grained, pale grey and orange-brown, grading to extremely weathered sandstone, no odour. Borehole Terminated at 2.90 mBGL;	М	VSt	RESIDUAL SOIL
			- -						T/C Bit Refusal on Sandstone.			
			4									
			5									
			-									
			6-									
			- - 7—									
			- -									
			8— 8—									
			- - 9									
			-									
			10—		This boreho	ole lo	g shou	ıld be	e read in conjunction with EI Australia's accompanying sta	ndaro	d note	es.



BOREHOLE: BH3M-a

Sheet

Project Detailed Site Investigation

Deicorp Pty Ltd

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2
Job No. E24724.E02

Client

Contractor Hagstrom
Drill Rig Hydrapowe

Hydrapower Scout V (DR011)

Date Started 21/7/20
Date Completed 22/7/20

Logged LW Date:21/7/20 Checked SR Date: 24/8/20

1 OF 1

Inclination -90° Drilling Sampling **Field Material Description** PIEZOMETER DETAILS Static Water Level JSCS SYMBOL MOISTURE CONDITION CONSISTENCY DENSITY ID S RECOVERED SAMPLE OR FIELD TEST GRAPHIC LOG SOIL/ROCK MATERIAL DESCRIPTION DEPTH (metres) DEPTH RL FILL: Silty CLAY; low plasticity, brown-dark grey to dark brown, with fine to coarse grained sand, fine to coarse, sub-rounded to angular sandstone and igneous gravel, trace rubber fragments, no odour. М AD. 21/7/20 M VSt Sandy CLAY; fine to medium grained, pale grey and orange-brown, grading to extremely weathered sandstone, no Bentonite Borehole Terminated at 2.50 mBGL; T/C Bit Refusal on Sandstone. uPVC 50 mm 3 Casing Sand uPVC 50 mm 5 Screen 8 9



BOREHOLE: BH4M

Checked SR

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02 Client Deicorp Pty Ltd

Surface RL 98.00 m Contractor Geosense Drilling Drill Rig

Inclination

Hanjin DB8

1 OF 1 Sheet Date Started 14/7/20 Date Completed 14/7/20 Logged SL Date:14/7/20

Date: 24/8/20

		ling		Sampling	_							
PENETRATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOI	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
		0 	98.00	BH4M_0.3-0.5 ES			-	FILL: Silty SAND; fine to medium grained, brown, with low plasticity clay and concrete fragments, no odour.			FILL	
L		1—	1.10 96.90	BH4M_0.9-1.0 ES				Fom 1.1 m, orange-brown, with medium sandstone gravel, no odour.	-	-		
н		-	1.60 96.40	BH4M_1.4-1.5 ES				From 1.6 m, grey, no odour.	-			
	N.	2	96.00				-	FILL: Silty CLAY; medium plasticity, red mottled grey-brown, with fine to medium, sub-angular to sub-rounded gravel, no odour.				
L	В	3		BH4M_2.9-3.0 ES					-	-		
		- - -	4.00	BH4M 3.9-4.0 ES			> >					
М		4		BH4M_4.4-4.5 ES		x x x x	CI	Silty CLAY; medium plasticity, red mottled grey, no odour.	M (<pl< td=""><td>VSt -) H</td><td>RESIDUAL SOIL</td><td></td></pl<>	VSt -) H	RESIDUAL SOIL	
		-	93.40	BH4M_4.6-4.7 ES			С	Sandy CLAY; fine to medium grained, pale grey and orange-brown, grading to extremely weathered sandstone, no odour.	D	VSt - H		
		-5 - - -		B14M_4.3-5.0 E5				Borehole Terminated at 5.00 mBGL; T/C Bit Refusal.				
		6— 6										
		- -										
		7— - -										
		8										
		- -										
		9—										
		-										
	H	T	M S S S S S S S S S S S S S S S S S S S	M M L SISTANCE PEPTH RL SISTANCE PETH R	Note	NO	Name	NO DEPTH RL SAMPLE OR FIELD TEST OF DEPTH RL SAMPLE OR	Name	Name	Name	The content of the



BOREHOLE: BH4M-a

1 OF 1

Sheet

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Date Started 21/7/20 Position Refer to Figure 2 Date Completed 22/7/20 Job No. E24724.E02 Contractor Hagstrom Logged LW Date:21/7/20 Client Deicorp Pty Ltd Drill Rig Hydrapower Scout V (DR011) Checked SR Date: 24/8/20 Inclination -90°

Drilling Sampling **Field Material Description** PIEZOMETER DETAILS Static Water Level JSCS SYMBOL MOISTURE CONDITION CONSISTENCY DENSITY ID S BH4M-a RECOVERED GRAPHIC LOG SAMPLE OR FIELD TEST SOIL/ROCK MATERIAL DESCRIPTION DEPTH (metres) DEPTH RL FILL: Silty SAND; fine to medium grained, brown, with low plasticity clay and concrete fragments, no odour. 1.10 Fom 1.1 m, orange-brown, with medium sandstone gravel, no odour. 1.60 From 1.6 m, grey, no odour. Н 2.00 Grout FILL: Silty CLAY; medium plasticity, red mottled grey-brown, with fine to medium, sub-angular to sub-rounded gravel, no odour. GWNE AD/T 3 4.00 Silty CLAY; medium plasticity, red mottled grey, no odour. M VSt (<PL) H М **Bentonite** 4.40 D_VSt Sandy CLAY; fine to medium grained, pale grey and orange-brown, grading to extremely weathered sandstone, no odour. uPVC 50 mm Borehole Terminated at 4.50 mBGL; T/C Bit Refusal. 5 uPVC 50 mm Screen Sand 8 9



BOREHOLE: BH5M

Checked SR

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Refer to Figure 2 Job No. E24724.E02 Client Deicorp Pty Ltd

Position

Surface RL 94.10 m Contractor Geosense Drilling Hanjin DB8

Drill Rig Inclination -90°

Sheet 1 OF 1 16/7/20 Date Started Date Completed 16/7/20 Logged SL Date:16/7/20

Date: 24/8/20

Drilling Sampling **Field Material Description** PIEZOMETER DETAILS Static Water Level JSCS SYMBOL MOISTURE CONDITION CONSISTENCY DENSITY <u>ID</u> BH5M RECOVERED GRAPHIC LOG SAMPLE OR FIELD TEST SOIL/ROCK MATERIAL DESCRIPTION DEPTH (metres) 15M DEPTH RL 94.10 FILL: Gravelly SAND; fine to medium grained, brown, fine to medium, sub-angular to sub-rounded garvels, with clay, plastic fragments, no odour. BH5M_0.1-0.2 ES BH5M_0.5-0.6 ES GWNE BH5M_1.0-1.1 ES BH5M 1.5-1.6 ES M <PL) VSt BH5M_1.8-1.9 ES Silty CLAY; medium plasticity, red-brown, no odour. From 1.9 m, grey, grading to extremely weathered sandstone, BH5M_1.9-2.0 ES no odour. Borehole Terminated at 2.00 mBGL; T/C Bit Refusal. uPVC 50 mm Casing 3 uPVC 50 mm Screen Sand 5 8 9



BOREHOLE: BH6

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW Refer to Figure 2

Job No. E24724.E02 Client Deicorp Pty Ltd

Position

Surface RL 90.80 m Contractor Geosense Drilling

Drill Rig Hanjin DB8 Inclination -90°

1 OF 1 Sheet Date Started 20/7/20 Date Completed 20/7/20 Logged SL Date:20/7/20

Checked SR Date: 24/8/20

	Dril	lina		Sampling				Field Metavial Decay	rintic	<u></u>		_
Drilling Sampling						1		Field Material Desci	·pu	,,,		
RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
		0 —	90.80	BH6 0.1-0.2 ES			-	FILL: Silty CLAY; low plasticity, pale grey mottled red-brown,			FILL	
		1		вно_0.1-0.2 E3		\otimes		with fine to medium gravels and fine to medium grained sand, no odour.				
]		BH6_0.4-0.5 ES								
	WNE	-										
	0	1-		BH6_0.9-1.0 ES								
м		+	89.60				CL	Sandy CLAY; low plasticity, pale grey, grading to extremely	D	VSt	RESIDUAL SOIL	
IVI	_		1.50	BH6_1.4-1.5 ES	_=				۲	VOI		
]						T/C Bit Refusal.				
		2—										
		-										
		-										
]										
		3-										
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		-										
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		+				1						
	RESISTANCE	GWNE	0 —	0 90.80 - 90.80 - 90.80 - 1 - 1.20 - 89.60 - 1.50	0 90.80 BH6_0.1-0.2 ES BH6_0.4-0.5 ES 1 - 1.20 89.60 1.50 BH6_1.4-1.5 ES 2	0 90.80 BH6_0.1-0.2 ES BH6_0.4-0.5 ES BH6_0.4-0.5 ES BH6_0.9-1.0 ES BH6_0.9-1.0 ES BH6_1.4-1.5 ES BH6_1.4-1.5 ES BH6_0.9-1.0 ES BH6_1.4-1.5 E	0 90.80 BH6_0.1-0.2 ES BH6_0.4-0.5 E	0 90.80 BH6_0.1-0.2 ES BH6_0.4-0.5 ES BH6_0.4-0.5 ES BH6_1.4-1.5 ES 3 - 1.50 BH6_1.4-1.5 ES 4 - 1.50 BH6_1.4-1.5 ES	M Pose of the control	M PROPERTY OF THE PROPERTY OF	BH6_0.1-0.2 ES BH6_0.0-1.0 ES BH6_0.1-0.5 ES BH6_0.	Section Sect



BOREHOLE: BH7M

Project **Detailed Site Investigation**

Deicorp Pty Ltd

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02

Client

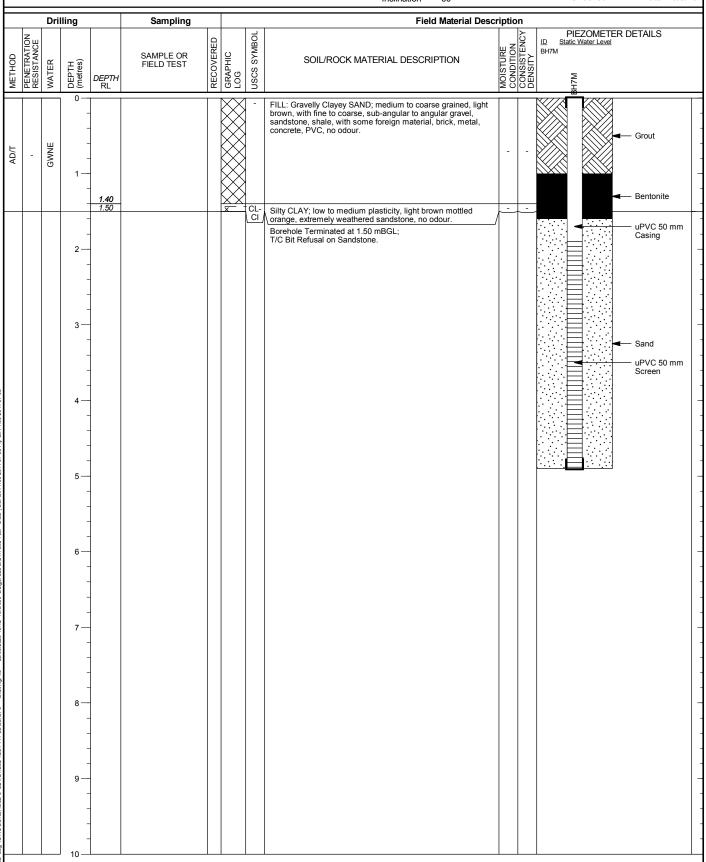
Contractor Hagstrom Drill Rig

Hydrapower Scout V (DR011)

Sheet 1 OF 1 21/7/20 Date Started Date Completed 22/7/20

Date:21/7/20

Inclination -90° Logged LW Checked MD Date: 28/8/20





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW Position Refer to Figure 2

Job No. E24724.E02 Contractor

Client Deicorp Pty Ltd Machine 8T Backhoe Excavator

Bucket Size 600 mm

TEST PIT: TP7

Sheet 1 OF 1 Date 8/7/20

Logged LW Checked MD

	ı	Exca	/ation		Sampling				Field Material Desc			
МЕТНОВ	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0	0.50	TP7_0.1-0.2 ES PID = 0.6 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
ш	-	GWNE	-	0.70	TP7_0.6-0.7 ES PID = 0.5 ppm			-	FILL: Gravelly SAND; fine to coarse grained, grey, with sub- angular to anguar gravel, no odour. FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, no	М	-	ROADBASE -
		0	1.0	1.00				CL- CI	odour. Silty CLAY; low to medium plasticity, light brown mottled	М	-	NATURAL _
			- - -	1.40	TP7_1.3-1.4 ES PID = 0.4 ppm		xx	Ci Ci	orange, extremely weathered sandstone, no odour.	D	-	-
			1.5 - -	1.50					From 1.4 m, grading to pale grey mottled red-orange, no odour. Test Pit Terminated at 1.50 mBGL; Target Depth Reached.			
			2.0 —									- - - -
			2.5									- - - -
			3.0									
-						_			Skatah 8 Othar Observations			'

Sketch & Other Observations





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2
Job No. E24724.E02

Client

Deicorp Pty Ltd

Contractor -

Machine 8T Backhoe Excavator

Bucket Size 600 mm

Sheet 1 OF 1

Checked

TEST PIT: TP8

Date 8/7/20 Logged LW

MD

		Exca	ation		Sampling				Field Material Desc			
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ш	-	GWNE	0.0 —	0.80	TP8_0.1-0.2 ES PID = 0.8 ppm				FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
			- -1.0	1.00	TP8_0.9-1.0 ES PID = 0.8 ppm		<u>x</u>	CL- CI	Silty CLAY; low to medium plasticity, light brown mottled orange, extremely weathered sandstone, no odour. Test Pit Terminated at 1.00 mBGL; Target Depth Reached.	D	-	NATURAL
			1.5 —						Taiget Deptil Reactieu.			-
			2.0									-
00-10-103 CO:1 VI			2.5 —									
4.6.1.00.10.41			3.0 —									-
2									Sketch & Other Observations			

Sketch & Other Observations





Project Detailed Site Investigation

Deicorp Pty Ltd

Location 2 Mandala Parade, Castle Hill NSW Position Refer to Figure 2

Job No. E24724.E02

Client

Contractor 8T Backhoe Excavator

Bucket Size 600 mm

TEST PIT: TP9

1 OF 1 Sheet Date

8/7/20

Logged LW MD Checked

		Exca	vation		Sampling				Field Material Desc			
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ш	-	GWNE	0.0 —	1.10	TP9_0.1-0.2 ES PID = 0.6 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	NATURAL
			-	1.30	TP9_1.2-1.3 ES		x	CL- CI	Silty CLAY; low to medium plasticity, light brown mottled orange, extremely weathered sandstone, no odour.	D	-	NATURAL
EA 1.03 2014-07-06 Pi; EIA 1.03 2014-07-05			2.0 — 2.5 — 3.0 — 3		PID = 0.4 ppm				Test Pit Terminated at 1.30 mBGL; Target Depth Reached.			
A 1.03 2		-							Sketch & Other Observations			
0 Datgel Lab and In Situ Tool - DGD Lib: El												





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02

Client Deicorp Pty Ltd Machine 8T Backhoe Excavator

Contractor

1 OF 1 Sheet Date

Logged

Checked

8/7/20 LW

MD

		Exca	vation		Sampling				Field Material Desc			
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ш	-	GWNE	0.0 — 0.5 — 1.0 — 1.5 — 2.0 — 2.5 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 —	1.30	TP10_0.1-0.2 ES PID = 0.7 ppm TP10_1.0-1.1 ES PID = 0.6 ppm			-	FILL: Gravelly Clayey SAND; medium to coasre grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour. From 1.3 m, with steel wires, no odour. Test Pit Terminated at 1.40 mBGL; Refusal on Fill.	м	-	FILL
									Sketch & Other Observations	_	1	

Sketch & Other Observations





Project Detailed Site Investigation

Deicorp Pty Ltd

Client

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02 Contractor

8T Backhoe Excavator

Bucket Size 600 mm

1 OF 1 Sheet 8/7/20 Date

Logged LW MD Checked

	E	Exca	ation		Sampling				Field Material Desc				٦
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
ш	-	GWNE	0.0	0.80	TP11_0.1-0.2 ES PID = 0.5 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL	
				0.90	TP11_0.8-0.9 ES PID = 0.7 ppm		$\times\!\!\times$	-	FILL: Gravelly SAND; grey, with concrete, no odour.	М	-	ROADBASE	4
P			1.0 —		ею = ч./ ррш				Test Pit Terminated at 0.90 mBGL; Refusal on Fill.				
10 10 10 10 10 10 10 10 10 10 10 10 10 1			3.0						Sketch & Other Observations				





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02 Contractor

Client Deicorp Pty Ltd 8T Backhoe Excavator

Bucket Size 600 mm

1 OF 1 Sheet 8/7/20 Date Logged LW

MD

Checked

		Exca	vation		Sampling				Field Material Desc	riptio	on	
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0	0.70	TP12_0.1-0.2 ES PID = 1 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
Ш	-	GWNE	1.0 —	0.70	TP12_0.8-0.9 ES PID = 0.8 ppm			-	FILL: Gravelly SAND; grey, no odour.	М	-	ROADBASE
			1.5 —	1.50	TP12_1.7-1.8 ES PID = 1.6 ppm			-	FILL: Silty CLAY; low plasticity, brown-dark grey to dark brown, with fine to coarse, sub-rounded to rounded gravel, no odour. From 1.7 m, with hydrocarbon odour.	/ M	-	FILL
			2.5 —	2.40					Test Pit Terminated at 2.40 mBGL; Refusal on Fill.			
			-									
	:				: : : :	:	:	:	Sketch & Other Observations		:	





Sheet

Date

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Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2

Job No. E24724.E02 Contractor

Client Deicorp Pty Ltd Machine 8T Backhoe Excavator

Bucket Size 600 mm

┕									Bucket Size 600 mm			
		Exca	ation		Sampling				Field Material Desc			
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0		TP13_0.1-0.2 ES PID = 0.6 ppm TP13_0.7-0.8 ES PID = 0.4 ppm			-	FILL: Gravelly Clayey SAND: medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
ш	-	GWNE	1.0	1.00	TP13_1.2-1.3 ES PID = 1 ppm			-	FILL: Gravelly SAND; grey, no odour.	M	-	ROADBASE -
			1.5 —	1.80	TP13_2.0-2.1 ES			-	FILL: Silty CLAY; low plasticity, brown-dark grey to dark brown, with fine to coarse, sub-rounded to rounded gravel, no odour. From 1.8 m, with steel wires, with hydrocarbon odour.	М	-	FILL
			2.5 —	2.10	PID = 1.1 ppm				Test Pit Terminated at 2.10 mBGL; Refusal on Fill.			-

Sketch & Other Observations





Project Detailed Site Investigation

Deicorp Pty Ltd

Client

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02 Contractor

8T Backhoe Excavator

Bucket Size 600 mm

1 OF 1 Sheet 8/7/20 Date

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Г	Excavation Sampling						Field Material Description							
МЕТНОБ	EXCAVATION RESISTANCE	WATER		<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS		
S 2014-07-05 TI), EIN 100 2014-07-00		GWNE	0.0	1.40 1.60	TP14_0.1-0.2 ES PID = 0.7 ppm TP14_1.0-1.1 ES PID = 0.6 ppm TP14_1.5-1.6 ES PID = 0.4 ppm		\$	- CL- CI	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour. Silty CLAY; low to medium plasticity, light brown mottled orange, extremely weathered sandstone, no odour. Test Pit Terminated at 1.60 mBGL; Target Depth Reached.	M D	-	NATURAL		
3									Sketch & Other Observations					





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LW

MD

Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

 Position
 Refer to Figure 2

 Job No.
 E24724.E02
 Contractor

Client Deicorp Pty Ltd Machine 8T Backhoe Excavator

Bucket Size 600 mm

	Excavation Sampling			Field Material Description								
METHOD	EXCAVATION RESISTANCE	WATER	٥٥	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
В	-	GWNE	0.0	1.40	TP15_0.1-0.2 ES PID = 0.8 ppm TP15_1.0-1.1 ES PID = 0.7 ppm				FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
			2.0 —	TP15_1.7-1.8 ES PID = 0.8 ppm				FILL: Gravelly SAND; grey, with concrete, steel, no odour. Test Pit Terminated at 2.60 mBGL;	М	-		
			-						Test Pit Terminated at 2.60 mBGL; Refusal on Fill.			

Sketch & Other Observations





Sheet

Date

Project Detailed Site Investigation

Deicorp Pty Ltd

Client

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02

8T Backhoe Excavator

Bucket Size 600 mm

Contractor

Logged LW Checked MD

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8/7/20

		Exca	vation		Sampling				Field Material Desc				
METHOD	EXCAVATION	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS	
ш	-	GWNE	0.0	1.70	TP16_0.1-0.2 ES PID = 0.6 ppm TP16_1.3-1.4 ES PID = 0.3 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	м	-	FILL	
0 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			2.0 —						Test Pit Terminated at 1.70 mBGL; Refusal on Concrete Footing.				
13 2014-07-05 Pri			3.0 —						Sketch & Other Observations				





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW Position Refer to Figure 2

 Job No.
 E24724.E02
 Contractor

 Client
 Deicorp Pty Ltd
 Machine
 8T Backhoe Excavator

Bucket Size 600 mm

Date 8/7/20 Logged LW

Sheet

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Checked MD

Excavation	Sampling	Field Material Descri	
METHOD EXCAVATION RESISTANCE WATER DEPTH (metres)	SAMPLE OR SIELD TEST OOD	SOIL/ROCK MATERIAL DESCRIPTION	STRUCTURE AND ADDITIONAL ADDITIONAL OBSERVATIONS OBSERVATIONS
1.5 — 2.0 — 2.5 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 — 3.0 —	TP17_0.1-0.2 ES PID = 1.3 ppm TP17_0.8-0.9 ES PID = 0.5 ppm	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour. Borehole Terminated at 1.00 mBGL; Refusal on very stiff clay.	M
790		Sketch & Other Observations	





Project Detailed Site Investigation

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2 Job No. E24724.E02 Contractor

Client Deicorp Pty Ltd 8T Backhoe Excavator

Bucket Size 600 mm

1 OF 1 Sheet 8/7/20 Date

Logged LW Checked MD

DEPTH RL OBSERVATIONS			Exca	vation		Sampling				Field Material Desc			
TP18_0.1-0.2 ES PID = 0.6 ppm 1.0 TP18_0.9-1.0 ES PID = 0.5 ppm TP18_1.8-1.9 ES PID = 0.4 ppm TP18_2.2-2.3 ES PID = 0.3 ppm	METHOD	EXCAVATION RESISTANCE	WATER		<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
M - W - W - I.5 - ITP18_1.8-1.9 ES PID = 0.4 ppm TP18_2.2-2.3 ES PID = 0.3 ppm 2.5 - ITP18_2.2-2.3 ES PID = 0.3 ppm Test Pit Terminated at 3.00 mBGL; Refusal on Sandstone.				- - -		TP18_0.1-0.2 ES PID = 0.6 ppm			-	FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.			FILL
2.0 — TP18_1.8-1.9 ES PID = 0.4 ppm TP18_2.2-2.3 ES PID = 0.3 ppm 3.00 Test Pit Terminated at 3.00 mBGL; Refusal on Sandstone.			<u> </u>	1.0 —		TP18_0.9-1.0 ES PID = 0.5 ppm							
2.5— 2.5— 3.00 Test Pit Terminated at 3.00 mBGL; Refusal on Sandstone.	Ш	-	GWN	-							M	-	
Test Pit Terminated at 3.00 mBGL; Refusal on Sandstone.				2.5 —		TP18_2.2-2.3 ES PID = 0.3 ppm							
				—3.0— -	3.00			\otimes		Test Pit Terminated at 3.00 mBGL;			
	_												

Sketch & Other Observations





Excavation

TEST PIT: TP19

Sheet

Date

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Checked

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LW

MD

Project Detailed Site Investigation

Sampling

Location 2 Mandala Parade, Castle Hill NSW

Position Refer to Figure 2

Job No. E24724.E02 Contractor

Client Deicorp Pty Ltd Machine 8T Backhoe Excavator

Bucket Size 600 mm

Field Material Description					
	CY				

МЕТНОБ	EXCAVATION RESISTANCE	WATER	٥٤	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
Ш	-	GWNE	0.0	1.30	TP19_0.1-0.2 ES PID = 0.5 ppm TP19_0.8-0.9 ES PID = 0.5 ppm				FILL: Gravelly Clayey SAND; medium to coarse grained, light brown, with fine to coarse, sub-angular to angular gravel, sandstone, shale, with some foreign material, brick, metal, concrete, PVC, no odour.	М	-	FILL
				1.50	TP19_1.4-1.5 ES		<u>x</u>	CL- CI	Silty CLAY; low to medium plasticity, light brown mottled orange, extremely weathered sandstone, no odour.	D	-	NATURAL _
			2.0		PID = 0.3 ppm	<i>J</i>			Test Pit Terminated at 1.50 mBGL; Target Depth Reached.			- - - - -
2010407			2.5 —									- - - -
i o			3.0 —									 - -

Sketch & Other Observations



This borehole log should be read in conjunction with EI Australia's accompanying standard notes.



EXPLANATION OF NOTES, ABBREVIATIONS & TERMS USED ON BOREHOLE AND TEST PIT LOGS

DRILLING	DRILLING/EXCAVATION METHOD					
HA	Hand Auger	RD	Rotary blade or drag bit	NQ	Diamond Core - 47 mm	
DTC	Diatube Coring	RT	Rotary Tricone bit	NMLC	Diamond Core - 52 mm	
NDD	Non-destructive digging	RAB	Rotary Air Blast	HQ	Diamond Core - 63 mm	
AS*	Auger Screwing	RC	Reverse Circulation	HMLC	Diamond Core - 63mm	
AD*	Auger Drilling	PT	Push Tube	BH	Tractor Mounted Backhoe	
*V	V-Bit	CT	Cable Tool Rig	EX	Tracked Hydraulic Excavator	
*T	TC-Bit, e.g. ADT	JET	Jetting	EE	Existing Excavation	
ADH	Hollow Auger	WB	Washbore or Bailer	HAND	Excavated by Hand Methods	

PENETRATION/EXCAVATION RESISTANCE

- Low resistance. Rapid penetration/ excavation possible with little effort from equipment used.
- Medium resistance. Penetration/ excavation possible at an acceptable rate with moderate effort from equipment used.
- High resistance. Penetration/ excavation is possible but at a slow rate and requires significant effort from equipment used.
- R Refusal/ Practical Refusal. No further progress possible without risk of damage or unacceptable wear to equipment used.

These assessments are subjective and are dependent on many factors, including equipment power and weight, condition of excavation or drilling tools and experience of the operator.

WATER

✓ Water level at date shown✓ Partial water loss✓ Water inflow✓ Complete water loss

GROUNDWATER NOT OBSERVED

Observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage

or cave-in of the borehole/ test pit.

GROUNDWATER

Borehole/ test pit was dry soon after excavation. However, groundwater could be present in less permeable strata. Inflow may have been observed had the borehole/ test pit been left open for a longer period.

SAMPLING AND TESTING

SPT Standard Penetration Test to AS1289.6.3.1-2004

4,7,11 N=18 4,7,11 = Blows per 150mm. N = Blows per 300mm penetration following 150mm seating 30/80mm Where practical refusal occurs, the blows and penetration for that interval are reported

RW Penetration occurred under the rod weight only

HW Penetration occurred under the hammer and rod weight only

HB Hammer double bouncing on anvil

Sampling

DS Disturbed Sample
BDS Bulk disturbed Sample
GS Gas Sample
WS Water Sample

U63 Thin walled tube sample - number indicates nominal sample diameter in millimetres

Testing

FP Field Permeability test over section noted

FVS Field Vane Shear test expressed as uncorrected shear strength (sv = peak value, sr = residual value)

PID Photoionisation Detector reading in ppm
PM Pressuremeter test over section noted

PP Pocket Penetrometer test expressed as instrument reading in kPa

WPT Water Pressure tests

DCP Dynamic Cone Penetrometer test CPT Static Cone Penetration test

CPTu Static Cone Penetration test with pore pressure (u) measurement

RANKING OF VISUALLY OBSERVABLE CONTAMINATION AND ODOUR (for specific soil contamination assessment

R = 0	No visible evidence of contamination	R = A	No non-natural odours identified
R = 1	Slight evidence of visible contamination	R = B	Slight non-natural odours identified
R = 2	Visible contamination	R = C	Moderate non-natural odours identified
R = 3	Significant visible contamination	R = D	Strong non-natural odours identified

ROCK CORE RECOVERY

TCR = Total Core Recovery (%) $= \frac{\text{Length of core recevered}}{\text{Lengh of core run}} \times 100$ $= \frac{\sum \text{Length of core run}}{\text{Lengh of core run}} \times 100$ $= \frac{\sum \text{Length of core run}}{\text{Lengh of core run}} \times 100$ $= \frac{\sum \text{Length of core run}}{\text{Lengh of core run}} \times 100$

MATERIAL BOUNDARIES

= inferred boundary ----- = probable boundary -?--?--?--?--? = possible boundary



METHOD OF SOIL DESCRIPTION USED ON BOREHOLE AND TEST PIT LOGS



FILL

ORGANIC SOILS (OL, OH or Pt)



CLAY (CL, CI or CH)

~~~ ~~~ ~~~ COUBLES or BOULDERS

SILT (ML or MH)

SAND (SP or SW)

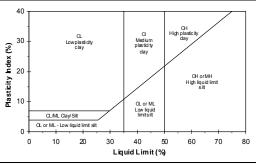
್ನಿಂಡ್ GRAVEL (GP or ಎಂಡ್ GW)

Combinations of these basic symbols may be used to indicate mixed materials such as sandy clay

#### **CLASSIFICATION AND INFERRED STRATIGRAPHY**

Soil is broadly classified and described in Borehole and Test Pit Logs using the preferred method given in AS1726 – 1993, (Amdt1 – 1994 and Amdt2 – 1994), Appendix A. Material properties are assessed in the field by visual/tactile methods.

#### **PARTICLE SIZE CHARACTERISTICS Major Division Sub Division Particle Size BOULDERS** >200 mm **COBBLES** 63 to 200 mm 20 to 63 mm Coarse **GRAVEL** Medium 6 to 20 mm Fine 2 to 6 mm Coarse 0.6 to 2 mm SAND Medium 0.2 to 0.6 mm Fine 0.075 to 0.2mm SILT 0.002 to 0.075 mm CLAY <0.002 mm **PLASTICITY PROPERTIES**



| USCS SYMBOLS                                                                          |                                            |        |                                                                                                   |  |
|---------------------------------------------------------------------------------------|--------------------------------------------|--------|---------------------------------------------------------------------------------------------------|--|
| Major D                                                                               | ivisions                                   | Symbol | Description                                                                                       |  |
| ss<br>mm                                                                              | o of<br>are                                | GW     | Well graded gravel and gravel-<br>sand mixtures, little or no fines.                              |  |
| <b>51LS</b><br>ss les<br>0.075h                                                       | n 50%<br>rains<br>3mm                      | GP     | Poorly graded gravel and gravel-<br>sand mixtures, little or no fines.                            |  |
| COARSE GRAINED SOILS More than 50% by dry mass less than 63mm is greater than 0.075mm | More than 50% of coarse grains are >2.36mm | GM     | Silty gravel, gravel-sand-silt mixtures.                                                          |  |
| <b>AINE</b> by dr                                                                     | Mor                                        | GC     | Clayey gravel, gravel-sand-clay mixtures.                                                         |  |
| <b>SE GF</b><br>50%<br>is gre                                                         | ains<br>anns                               | SW     | Well graded sand and gravelly sand, little or no fines.                                           |  |
| DARS<br>than<br>3mm                                                                   | More than 50% of coarse grains are <2.36mm | SP     | Poorly graded sand and gravelly sand, little or no fines.                                         |  |
| <b>Ω</b> οτε                                                                          | e to to ar                                 | SM     | Silty sand, sand-silt mixtures.                                                                   |  |
| M<br>thar                                                                             | Mor<br>of α                                | sc     | Clayey sand, sandy-clay mixtures.                                                                 |  |
| <b>ILS</b><br>mass<br>s than                                                          | t less                                     | ML     | Inorganic silts of low plasticity,<br>very fine sands, rock flour, silty<br>or clayey fine sands. |  |
| FINE GRAINED SOILS More than 50% by dry mass less than 63mm is less than 0.075mm      | iquid Limit less<br>< 50%                  | CL     | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays.            |  |
| <b>SRAINED</b><br>n 50% by<br>n 63mm is<br>0.075mm                                    | Liq                                        | OL     | Organic silts and organic silty clays of low plasticity.                                          |  |
| E (                                                                                   | - ^                                        | MH     | Inorganic silts of high plasticity.                                                               |  |
| s t e t                                                                               | iquid<br>imit ><br>than<br>50%             | CH     | Inorganic clays of high plasticity.                                                               |  |
| Moi<br>less                                                                           | Liquid<br>Limit ><br>than<br>50%           | ОН     | Organic clays of medium to high plasticity.                                                       |  |
|                                                                                       |                                            | PT     | Peat muck and other highly organic soils.                                                         |  |

#### **MOISTURE CONDITION**

| Symbol | Term  | Description                                                                                   |
|--------|-------|-----------------------------------------------------------------------------------------------|
| D      | Dry   | Sands and gravels are free flowing. Clays & Silts may be brittle or friable and powdery.      |
| М      | Moist | Soils are darker than in the dry condition & may feel cool. Sands and gravels tend to cohere. |
| W      | Wet   | Soils exude free water. Sands and gravels tend to cohere.                                     |

Moisture content of cohesive soils may also be described in relation to plastic limit (WP) or liquid limit (WL) [» much greater than, > greater than, < less than, « much less than].

| CONSISTENCY |            |                          |  |  |
|-------------|------------|--------------------------|--|--|
| Symbol      | Term       | Undrained Shear Strength |  |  |
| VS          | Very Soft  | 0. to 12 kPa             |  |  |
| S           | Soft       | 12 to 25 kPa             |  |  |
| F           | Firm       | 25 to 50 kPa             |  |  |
| St          | Stiff      | 50 to 100 kPa            |  |  |
| VSt         | Very Stiff | 100 to 200 kPa           |  |  |
| Н           | Hard       | Above 200 kPa            |  |  |

| DENSITY |                |                 |           |
|---------|----------------|-----------------|-----------|
| Symbol  | Term           | Density Index % | SPT "N" # |
| VL      | Very Loose     | < 15            | 0 to 4    |
| L       | Loose          | 15 to 35        | 4 to 10   |
| MD      | Medium Density | 35 to 65        | 10 to 30  |
| D       | Dense          | 65 to 85        | 30 to 50  |
| VD      | Very Dense     | Above 85        | Above 50  |
|         | ·              | _               |           |

In the absence of test results, consistency and density may be assessed from correlations with the observed behaviour of the material. # SPT correlations are not stated in AS1726 – 1993, and may be subject to corrections for overburden pressure and equipment type.

#### **MINOR COMPONENTS**

| Term  | Assessment Guide                                                                                                                | Proportion by Mass                                           |
|-------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Trace | Presence just detectable by feel or eye but soil properties little or no different to general properties of primary component   | Coarse grained soils: ≤ 5%<br>Fine grained soil: ≤15%        |
| Some  | Presence easily detectable by feel or eye but soil properties little or no different to general properties of primary component | Coarse grained soils: 5 - 12%<br>Fine grained soil: 15 - 30% |



## ABBREVIATIONS AND DESCRIPTIONS FOR ROCK MATERIAL AND DEFECTS

#### **CLASSIFICATION AND INFERRED STRATIGRAPHY**

Rock is broadly classified and described in Borehole Logs using the preferred method given in AS1726 – 1993, (Amdt1 – 1994 and Amdt2 – 1994), Appendix A. Material properties are assessed in the field by visual/ tactile methods.

| <b>ROCK MATERIAL</b> | DESCRIPTION |
|----------------------|-------------|
|----------------------|-------------|

| Layering         |                                         | Structure           |                                                                 |  |
|------------------|-----------------------------------------|---------------------|-----------------------------------------------------------------|--|
| Term             | Description                             | Term                | Spacing (mm)                                                    |  |
| Massive          | No layering apparent                    | Thinly laminated    | <6<br>6 - 20<br>20 - 60<br>60 - 200<br>200 - 600<br>600 - 2,000 |  |
|                  | по ауеппу аррагент                      | Laminated           |                                                                 |  |
| Poorly Developed | Layering just visible; little effect on | Very thinly bedded  | 20 – 60                                                         |  |
| Poorly Developed | properties                              | Thinly bedded       | 60 – 200                                                        |  |
| Well Developed   | Layering (bedding, foliation, cleavage) | Medium bedded       | 200 – 600                                                       |  |
|                  | distinct; rock breaks more easily       | Thickly bedded      | 600 – 2,000                                                     |  |
|                  | parallel to layering                    | Very thickly bedded | > 2,000                                                         |  |

#### ABBREVIATIONS AND DESCRIPTIONS FOR DEFECT TYPES

| Defect Type                   | Abbr. | Description                                                                                                                                                                                                                                                                                        |
|-------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Joint                         | J     | Surface of a fracture or parting, formed without displacement, across which the rock has little or no tensile strength. May be closed or filled by air, water or soil or rock substance, which acts as cement.                                                                                     |
| Bedding Parting               | В     | Surface of fracture or parting, across which the rock has little or no tensile strength, parallel or sub-parallel to layering/ bedding. Bedding refers to the layering or stratification of a rock, indicating orientation during deposition, resulting in planar anisotropy in the rock material. |
| Foliation                     | Х     | Repetitive planar structure parallel to the shear direction or perpendicular to the direction of higher pressure, especially in metamorphic rock, e.g. Schistosity (S) and Gneissosity.                                                                                                            |
| Contact                       | С     | The surface between two types or ages of rock.                                                                                                                                                                                                                                                     |
| Cleavage                      | L     | Cleavage planes appear as parallel, closely spaced and planar surfaces resulting from mechanical fracturing of rock through deformation or metamorphism, independent of bedding.                                                                                                                   |
| Sheared Seam/<br>Zone (Fault) | SS/SZ | Seam or zone with roughly parallel almost planar boundaries of rock substance cut by closely spaced (often <50 mm) parallel and usually smooth or slickensided joints or cleavage planes.                                                                                                          |
| Crushed Seam/<br>Zone (Fault) | CS/CZ | Seam or zone composed of disoriented usually angular fragments of the host rock substance, with roughly parallel near-planar boundaries. The fragments may be of clay, silt, sand or gravel sizes or mixtures of these.                                                                            |
| Decomposed<br>Seam/ Zone      | DS/DZ | Seam of soil substance, often with gradational boundaries, formed by weathering of the rock material in places.                                                                                                                                                                                    |
| Infilled Seam                 | IS/IZ | Seam of soil substance, usually clay or clayey, with very distinct roughly parallel boundaries, formed by soil migrating into joint or open cavity.                                                                                                                                                |
| Schistocity                   | S     | The foliation in schist or other coarse grained crystalline rock due to the parallel arrangement of platy or prismatic mineral grains, such as mica.                                                                                                                                               |
| Vein                          | V     | Distinct sheet-like body of minerals crystallised within rock through typically open-space filling or crack-seal growth.                                                                                                                                                                           |

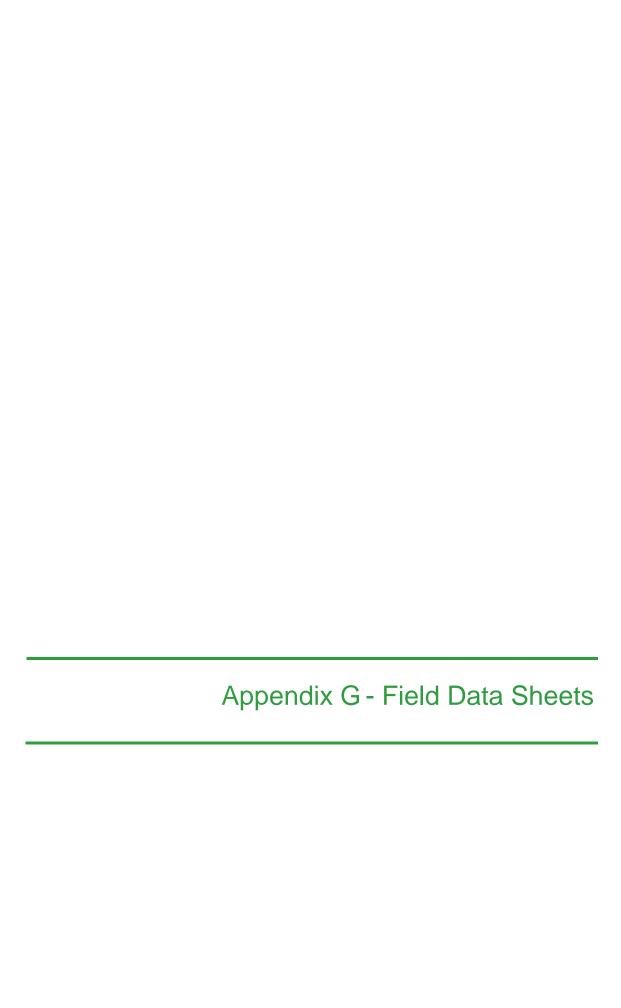
#### ABBREVIATIONS AND DESCRIPTIONS FOR DEFECT SHAPE AND ROUGHNESS

| Shape      | Abbr. | Description                       | Roughness    | Abbr. | Description                                                                                       |
|------------|-------|-----------------------------------|--------------|-------|---------------------------------------------------------------------------------------------------|
| Planar     | PI    | Consistent orientation            | Polished     | Po    | Shiny smooth surface                                                                              |
| Curved     | Cu    | Gradual change in orientation     | Slickensided | SI    | Grooved or striated surface, usually polished                                                     |
| Undulating | Un    | Wavy surface                      | Smooth       | Sm    | Smooth to touch. Few or no surface irregularities                                                 |
| Stepped    | St    | One or more well defined steps    | Rough        | Ro    | Many small surface irregularities (amplitude generally <1mm). Feels like fine to coarse sandpaper |
| Irregular  | Irr   | Many sharp changes in orientation | Very Rough   | VRo   | Many large surface irregularities, amplitude generally >1mm. Feels like very coarse sandpaper     |

Orientation: Vertical Boreholes – The dip (inclination from horizontal) of the defect.

Inclined Boreholes - The inclination is measured as the acute angle to the core axis.

| ABBREVIATI | ONS A | ND DESCRIPTIONS FOR DEFECT COATING                                                                  | DEFECT AF | PERTUR | RE                                                 |
|------------|-------|-----------------------------------------------------------------------------------------------------|-----------|--------|----------------------------------------------------|
| Coating    | Abbr. | Description                                                                                         | Aperture  | Abbr.  | Description                                        |
| Clean      | Cn    | No visible coating or infilling                                                                     | Closed    | CI     |                                                    |
| Stain      | Sn    | No visible coating but surfaces are discoloured by staining, often limonite (orange-brown)          | Open      | 0      | Without Infill                                     |
| Veneer     | Vr    | A visible coating of soil or mineral substance, usually too thin to measure (< 1 mm); may be patchy | Infilled  | -      | Soil or rock i.e. clay, talc, pyrite, quartz, etc. |



#### WATER SAMPLING FIELD SHEET



|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              |             | 010101011011                                    |  |  |  |  |  |  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|---------------|---------------|--------------|-------------|-------------------------------------------------|--|--|--|--|--|--|
| Site Addre  | ess:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2 Ma           | ndala        | Poles         | cast          | le Hill      |             |                                                 |  |  |  |  |  |  |
| Client:     | Do                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |              |               |               |              | Date: 🏖     |                                                 |  |  |  |  |  |  |
| Field Staff | f:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 200            |              |               |               |              | Sampling    | Location ID BH3M-a                              |  |  |  |  |  |  |
| Well Loca   | tion:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |              |               |               |              | Round No    | D: -                                            |  |  |  |  |  |  |
| MEDIUM      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ø              | Groundwa     | ter □S        | Surface Wa    | ater         | □Stormw     | rater Other:                                    |  |  |  |  |  |  |
| SAMPLIN     | G POINT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | INFO           |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| Well Insta  | llation Dat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | te: 22         | 17/20        |               |               |              | Stick up/   | down (m): + / 0 (+ above ground - below ground) |  |  |  |  |  |  |
| Initial Wel | l Depth (m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BTOC):         | 7-1          | - 4           |               |              | Screen In   | terval (mBTOC): 4.1-7.1                         |  |  |  |  |  |  |
| Previous S  | Sampling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Date:          |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| PID REAL    | NINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| PID Head    | space (pp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | m):            |              |               |               |              | PID Back    | ground (ppm):                                   |  |  |  |  |  |  |
| PID Breat   | hing Spac                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | e (ppm):       |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| PRE PUR     | GE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |              |               |               |              | 25 ×        |                                                 |  |  |  |  |  |  |
| Total Well  | Depth (m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | BTOC):         | 7.1          |               |               |              | Well Head   | d Condition: Good                               |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | 1            |               |               |              |             |                                                 |  |  |  |  |  |  |
| PHASE S     | EPARATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |              | IS (PSH)      |               |              | ~           |                                                 |  |  |  |  |  |  |
| Depth to F  | PSH (mBT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 06):           |              |               |               |              | PSH Visu    | ally Confirmed (Bailer):                        |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| PURGE A     | ND SAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PLE            |              |               | :1            |              |             |                                                 |  |  |  |  |  |  |
| Sampling    | Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Bladde       | r [           | □Peristalti   | С            | Submersit   | ole   Other:                                    |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (mBTOC)        |              |               |               |              | Fill Timer: | 22 (A)      |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              |             | / D                                             |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | <u> </u>     |               |               |              |             |                                                 |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              |             |                                                 |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              | · amp on    |                                                 |  |  |  |  |  |  |
|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               |              | Bump Tes    | st Date and Time:                               |  |  |  |  |  |  |
| Time        | Volume<br>(L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SWL<br>(mbtoc) | Temp<br>(°C) | EC<br>(µS/cm) | Redox<br>(mV) | DO<br>(mg/L) | рН          | Comments (colour, turbidity, odour, sheen etc.) |  |  |  |  |  |  |
| 12232       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |              |               |               | 450          |             | Collet brown 1-un                               |  |  |  |  |  |  |
| 12234       | Ī                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |              |               | 953           |              |             | 110                                             |  |  |  |  |  |  |
| 12:36       | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |              |               | 97.2          |              | F. V        | NO, ***                                         |  |  |  |  |  |  |
| 12338       | ant:  Id Staff:  Id St |                |              |               |               |              |             |                                                 |  |  |  |  |  |  |
| pres        | Date: 39   7   20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |              |               |               |              |             |                                                 |  |  |  |  |  |  |
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| 2208                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | , ,            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | 1             |              |               |                                                 |
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| STATE OF THE PARTY |                          |                | RVATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ):            |               |              |               |                                                 |
| SIGNATU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | JRE:                     | NI             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |               |              |               |                                                 |
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|            |                         | WATER          | SAMPLII      | NG FIELD      | SHEET         |              |               | eiaustralia                                     |
|------------|-------------------------|----------------|--------------|---------------|---------------|--------------|---------------|-------------------------------------------------|
| Site Addre | ess: 2                  | manda          | la Pale      | - Cast        | te ari        | n            | Job Numb      | ber: 729724                                     |
| Client:    |                         | CORP           |              |               |               |              | Date: 2       |                                                 |
| Field Staf |                         | 1 11           |              |               |               |              |               | Location ID BH 7M                               |
| Well Loca  |                         |                | V.,          | 77.44.57      |               |              | Round No      |                                                 |
| MEDIUM     | itioii.                 | NZ             | Groundwa     | tor DS        | Surface Wa    | otor         | Stormw        |                                                 |
|            | IC DOINT                |                | Siouriawa    | tei Lis       | uriace vva    | atei         | LISTOTTIW     | deller.                                         |
|            | IG POINT                |                | 17/20        |               |               |              | Variation )   |                                                 |
|            | allation Da             | DTOO           | -0           | 100           |               |              |               | down (m): (+ above ground - below ground        |
|            | ll Depth (n             |                | I. T         |               |               |              |               | iterval (mBTOC): 29 - 5 - 9                     |
|            | Sampling                | Date:          |              |               |               |              | Previous      | SWL (mBTOC):                                    |
| PID REAL   | DINGS                   |                |              |               |               |              |               |                                                 |
| PID Head   | lspace (pp              | m):            |              | •             |               |              | PID Back      | ground (ppm):                                   |
| PID Breat  | thing Spac              | e (ppm):       |              |               |               |              |               |                                                 |
| PRE PUR    | RGE                     |                |              |               |               |              |               |                                                 |
| Total Wel  | I Depth (m              | nBTOC):        | 5.80         | 9             |               |              | Well Hea      | d Condition: Good                               |
| SWL (mB    |                         |                | 6.70         |               |               |              | Water Co      | olumn (m): 0 -/                                 |
|            |                         | ED HYDRO       |              |               | -0            |              |               |                                                 |
|            | PSH (mBT                |                | 707111201    | 10 (1 011)    | 37            | 3/7          | PSH Visu      | ally Confirmed (Bailer):                        |
|            | kness (mr               |                |              |               |               |              | I OII VISU    | ally Committed (Baller).                        |
|            |                         |                |              |               |               |              |               |                                                 |
| 2-12-22    | AND SAMI                | PLE            |              |               |               |              |               |                                                 |
| Sampling   |                         |                | □Bladde      | er [          | ∃Peristalti   | c L          | Submersil     |                                                 |
|            |                         | t (mBTOC)      |              |               |               |              | Fill Timer    |                                                 |
|            |                         | gulator (psi   | ):           | 1529          | × ,           |              | Discharge     | e Timer:                                        |
| Weather    | Conditions              | s:             |              | 17            |               |              | Cycle:        |                                                 |
| Pump on    | time:                   |                | 10 Har       |               | <u></u>       |              | Pump off      | time:                                           |
| WATER (    | QUALITY                 | PARAMET        | ERS          |               |               |              |               |                                                 |
| Probe Ma   | ke and Mo               | odel:          | 1.2          |               |               |              | Bump Te       | st Date and Time:                               |
| Time       | Volume<br>(L)           | SWL<br>(mbtoc) | Temp<br>(°C) | EC<br>(μS/cm) | Redox<br>(mV) | DO<br>(mg/L) | pH<br>(units) | Comments (colour, turbidity, odour, sheen etc.) |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              |               | 0.5                                             |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              | 14 718        |                                                 |
|            |                         |                |              |               |               |              | - 33          |                                                 |
|            |                         |                |              |               |               |              | - 8           |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              | - 1939        |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
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|            |                         |                |              |               |               |              |               | 7                                               |
|            |                         |                |              |               |               |              |               |                                                 |
|            |                         |                |              |               |               |              |               |                                                 |
|            | ilisation rasecutive re |                | ±0.2°C       | ±3%           | ±20mV         | ±10%         | ±0.2          |                                                 |
| OTHER O    | COMMEN                  | TS/OBSER       | VATIONS      | S:            |               |              |               |                                                 |
|            |                         |                |              |               | Suffi         | tien         | t wat         | er for sempling.                                |
| SIGNATU    | JRE:                    |                | _            |               |               |              |               |                                                 |

#### WATER SAMPLING FIELD SHEET



| Site Addre                | Entimoperation of the properties of the stable of the properties o |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|--------|-------------|----------|-----------|--------------------------|--|--|--|--|--|--|
| Client:                   | DO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | cost        | > '      |        |             |          |           |                          |  |  |  |  |  |  |
| Field Staff               | f: (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | W           |          |        |             |          | Sampling  | Location ID BH4M -a      |  |  |  |  |  |  |
| Well Loca                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| MEDIUM                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (X)         | Groundwa | ter □S | urface Wa   | ater     | □Stormw   | ater   Other:            |  |  |  |  |  |  |
| SAMPLIN                   | G POINT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | INFO        |          |        |             |          |           |                          |  |  |  |  |  |  |
| Well Insta                | Round No:   Stormwater   Other:   Oth   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| Initial Wel               | Round No:   Stormwater   Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| Previous                  | Round No:   Stormwater   Other:   Ot   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| PID READ                  | ell Location: Round No: Z  EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| PID Head                  | Round No:   Stormwater   Other:   Ot   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| PID Breat                 | Round No:   Stormwater   Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| PRE PUR                   | Round No:   Stormwater   Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| Total Wel                 | Round No: 7  AMPLING POINT INFO  etal Installation Date: 2 2 7 20  Stick up/ down (m): 40.96 (+ above ground - below ground)  titial Well Depth (mBTOC): 8 6 6  evious Sampling Date: Previous SWL (mBTOC): 5 6 2 6 6  Breathing Space (ppm): PID Background (ppm): PID  |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| SWL (mB                   | ell Location: Round No. 2  EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | ell Location: Round No: \( \) EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          | , ,    |             |          | PSH Visu  | ally Confirmed (Bailer): |  |  |  |  |  |  |
|                           | Round No: 7   Round Water   Surface Water   Stortwater    |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No. ?      |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Desir Desir | ПВIadde  | r [    | 7Peristalti | с П      | Suhmersik | ole MOther: ha Va S      |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | (mBTOC)     |          |        | ar chataiti |          |           | 7                        |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | . ,         |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No: 7   Stormwater   Cother:   Stormw   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Bluestine   Round No: 7   Ro   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Blocation:   Round No: \( \)   EDIUM   \( \)   Groundwater   \( \)   Surface Water   \( \)   Stormwater   \( \)   Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | ell Location: Round No: \( \) EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| Probe ivia                | Round No: \( \)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| Time                      | Bl Location:   Round No: 7   Distribution   Distr   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | ell Location: Round No: 2  EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | ell Location: Round No: 2  EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No: \( \gamma_{\text{EDIM}} \)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No. 7   Stormwater   Other:   AMPLING POINT INFO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Feather Conditions:   Feather Conditions:   Fill Times:    |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No. 7      |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No. 7      |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No: 2   Round No: 3   Round No: 3   Round No: 4      |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Reduced to   Round No. 2   R   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | Round No. ?   Stoke with the properties of the   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           | ell Location: Round No. ?  EDIUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |          |        |             |          |           |                          |  |  |  |  |  |  |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             | ±0.2°C   | ±3%    | ±20mV       | ±10%     | ±0.2      |                          |  |  |  |  |  |  |
| THE RESERVE OF THE PERSON |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             | VATIONS  |        |             | <u> </u> |           |                          |  |  |  |  |  |  |
| OTTLER                    | Bloadin:   Round No:   Comments   Continued   Contin   |             |          |        |             |          |           |                          |  |  |  |  |  |  |
| SIGNATU                   | RE:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | inde        | لد       |        |             |          |           |                          |  |  |  |  |  |  |

Appendix H - Chain of Custody and Sample Receipt Forms

| Sheet _1 o                                                                     | f4                |                                                   |           |                     | Sai    | nple N | Matrix                           |                                                       |                |                |         |                  |          |                         | Ana                        | lysis                        |            |        |        |        |        |        |            | Comments                                                |
|--------------------------------------------------------------------------------|-------------------|---------------------------------------------------|-----------|---------------------|--------|--------|----------------------------------|-------------------------------------------------------|----------------|----------------|---------|------------------|----------|-------------------------|----------------------------|------------------------------|------------|--------|--------|--------|--------|--------|------------|---------------------------------------------------------|
| Site:                                                                          |                   |                                                   |           | Project N           | o:     |        |                                  |                                                       |                |                |         |                  |          |                         |                            | 5                            |            |        |        |        |        |        |            | HM A<br>Arsenic                                         |
| 2 Mandala Pa                                                                   | rade, Cas         | tle Hill                                          |           | E24724<br>E02       |        |        | ıt, etc.)                        | AHs                                                   | AHs            |                |         |                  |          | tion                    | change)                    | onductivity                  |            |        |        |        |        |        |            | Cadmium<br>Chromium<br>Copper<br>Lead                   |
| Laboratory:                                                                    | ALEXA             | stralia<br>33 Maddox<br>NDRIA NSW<br>94 0400 F: 0 | 2015      | 499                 |        |        | OTHERS (i.e. Fibro, Paint, etc.) | HM <sup>A</sup> /TRH/BTEX/PAHs<br>OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | HM ≜ /TRH/BTEX |         |                  | S.       | Asbestos Quantification | pH / CEC (cation exchange) | EC (electrical conductivity) | ing Suite  |        |        |        |        |        | HM B / PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |
| Sample                                                                         | Laboratory        |                                                   | S         | ampling             | WATER  |        | ERS                              | A /                                                   | A              | T ≥ 1          | BTEX    | VOCs             | Asbestos | besto                   | / CE                       | /EC                          | Dewatering | sPOCAS | AS     |        |        |        | TCLP H     | Cadmium<br>Chromium                                     |
| ID                                                                             | ID                | Туре                                              | Date      | Time                | ĕ ×    | SOIL   | 1TO                              | ₹ö                                                    | ΣI             | Ĭ              | BT      | >                | As       | As                      | PH                         | /Hd                          | De         | sP(    | PFAS   |        |        |        | 10         | Lead<br>Mercury<br>Nickel                               |
| TP7_0.1-0.2                                                                    | 1                 | J/ZLB                                             | 8/7/20    | AM/P                | M      | X      |                                  | X                                                     |                |                |         |                  |          |                         | Y                          |                              |            |        |        |        |        |        |            | Dewatering Suite                                        |
| TP7_0.6-0.7                                                                    |                   | 1                                                 |           | 1                   |        | X      |                                  |                                                       |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            | TDS / Turbidity NTU<br>Hardness                         |
| TP7_1.3-1.4                                                                    | 2                 |                                                   |           |                     |        | X      |                                  | X                                                     |                |                |         |                  |          |                         |                            | -                            |            |        |        |        |        |        |            | Total Cyanide<br>Metals (Al, As, Cd, Cr,                |
| TP8_0.1-0.2                                                                    | 3                 |                                                   |           |                     |        | Х      |                                  | X                                                     |                |                |         |                  | -        |                         |                            |                              |            |        |        |        |        |        |            | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX     |
| TP8_0.9-1.0                                                                    | 4                 | -                                                 |           |                     |        | Х      |                                  | ×                                                     |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            | PAH<br>Total Phenol                                     |
| TP9_0.1-0.2                                                                    | 5                 |                                                   |           |                     |        | Х      |                                  | X                                                     |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            | LABORATORY<br>TURNAROUND                                |
| TP9_1.2-1.3                                                                    | 6                 |                                                   |           |                     |        | Х      |                                  | X                                                     |                |                |         |                  |          |                         |                            |                              | ٠.         | -      |        |        |        |        |            | Standard                                                |
| TP10_0.1-0.2                                                                   | 7                 |                                                   |           |                     | T      | Х      |                                  | X                                                     |                |                |         | -                |          |                         | S El                       |                              | •          | -      | oc.    |        |        |        |            | 24 Hours                                                |
| TP10_1.0-1.1                                                                   |                   |                                                   |           |                     |        | X      |                                  |                                                       |                |                |         |                  |          |                         | E2                         |                              |            |        |        |        |        |        |            | 48 Hours                                                |
| TP11_0.1-0.2                                                                   | 8                 |                                                   |           |                     |        | X      |                                  | X                                                     |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            | 72 Hours                                                |
| TP11_0.8-0.9                                                                   | 9                 |                                                   |           |                     |        | X      |                                  | X                                                     |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            | Other                                                   |
| TP12_0.1-0.2                                                                   | 10                | V                                                 | 1         | 1                   | $\top$ | X      |                                  | X                                                     |                |                |         |                  |          |                         |                            |                              |            |        |        |        | ı      | _      |            |                                                         |
| Container Type: J= solvent washed, a S= solvent washed, a P= natural HDPE plas | cid rinsed,Te     |                                                   | ss jar    |                     |        |        | estigate                         | or: I atte                                            |                |                |         | nples v<br>sampl |          |                         |                            | ccord                        | ance       | F      | Report | with E | I Wast | e Clas | sificati   | on Table                                                |
| VC= glass vial, Teflor<br>ZLB = Zip-Lock Bag                                   |                   |                                                   |           |                     |        | _      | 1-4                              | lame (EI                                              | ):             |                |         | Rece             | eived by | (SGS)                   | :                          |                              |            | Sam    | pler's | Comn   | nents: |        |            |                                                         |
| ZEB - ZIP-ZOON Bug                                                             |                   |                                                   |           |                     |        | 1_     | L                                | i Wei                                                 |                |                |         |                  | " <      | Sal                     | ba                         |                              |            |        |        |        |        |        |            |                                                         |
| 400                                                                            |                   | S                                                 |           | , 55 Miller         |        | Sig    | nature (                         | in                                                    | 21             | -              |         | Sign             | nature   | 18                      | uch                        | -                            |            |        |        |        |        |        |            |                                                         |
| eiaus                                                                          | +101:             |                                                   |           | NT NSW<br>9516 0722 |        | Da     | te 13/                           | 7/20                                                  |                |                |         | Date 3           | 6/07     | 120                     | 0                          | 3.                           | 30         |        |        |        |        |        |            |                                                         |
| Contamination   Remo                                                           | ediation   Geotec | hnical                                            |           | ustralia.co         |        |        |                                  | TANT                                                  |                |                |         |                  |          |                         |                            |                              |            |        |        |        |        |        |            |                                                         |
|                                                                                |                   |                                                   | COC March | 2018 FORM v.4 - SG  | 3      | Ple    | ase e-                           | mail lat                                              | orato          | ory res        | ults to | : lab(           | @eia     | ustra                   | alia.c                     | om.a                         | ıu         |        |        |        |        |        |            |                                                         |

| Sheet 2 of                                                           | 4                 |                                                   |        |                            | Sam   | ple N | /latrix                          |                                         |                |                  |                   |                  |          |                  | Ana                        | lysis                             |            |        |        |        |        |        |            | Comments                                                |
|----------------------------------------------------------------------|-------------------|---------------------------------------------------|--------|----------------------------|-------|-------|----------------------------------|-----------------------------------------|----------------|------------------|-------------------|------------------|----------|------------------|----------------------------|-----------------------------------|------------|--------|--------|--------|--------|--------|------------|---------------------------------------------------------|
| Site:                                                                |                   |                                                   |        | Project No:                |       |       |                                  | 6.1                                     |                |                  |                   |                  |          |                  |                            | ty)                               |            |        |        |        |        |        |            | HM A<br>Arsenic                                         |
| 2 Mandala Par                                                        | ade, Cas          | tle Hill                                          |        | E24724.<br>E02             |       |       | nt, etc.)                        | AHs                                     | AHs            |                  |                   |                  |          | tion             | change)                    | onductivi                         |            |        |        |        |        |        |            | Cadmium<br>Chromium<br>Copper<br>Lead                   |
| Laboratory:                                                          | ALEXAN            | stralia<br>33 Maddox<br>NDRIA NSW<br>94 0400 F: 0 | 2015   | 199                        |       |       | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | /TRH/BTEX        |                   |                  | Sı       | s Quantification | pH / CEC (cation exchange) | pH / EC (electrical conductivity) | ring Suite | (0)    |        |        |        |        | HM B / PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |
| Sample                                                               | Laboratory        | Container                                         | Sa     | mpling                     | WATER |       | ERS                              | AA /                                    | HM A /T        | HM A /T          | ВТЕХ              | VOCs             | Asbestos | Asbestos         | / CE                       | /EC                               | Dewatering | sPOCAS | PFAS   |        |        |        | CLPH       | Cadmium<br>Chromium<br>Lead                             |
| ID                                                                   | ID                | Туре                                              | Date   | Time                       | WA    | SOIL  | OT                               | ₹ŏ                                      | Ĭ              | Ī                | BT                | >                | As       | As               | PH                         | Hd                                | De         | SP     | PF     |        |        |        | 70         | Mercury<br>Nickel                                       |
| TP12_0.8-0.9                                                         | 11                | J/ZLB                                             | 8/7/20 | AM/PM                      |       | X     | - /                              | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | Dewatering Suite                                        |
| TP12_1.7-1.8                                                         | 12                | 1                                                 | 1      | 1                          |       | X     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        | 8          | TDS / Turbidity NTU<br>Hardness                         |
| TP13_0.1-0.2                                                         | 13                |                                                   |        |                            |       | X     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | Total Cyanide<br>Metals (Al, As, Cd, Cr,                |
| TP13_0.7-0.8                                                         |                   |                                                   |        |                            |       | Х     |                                  |                                         |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX     |
| TP13_1.2-1.3                                                         | 14                |                                                   |        |                            |       | Х     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | PAH Total Phenol                                        |
| TP13_2.0-2.1                                                         | 15                |                                                   |        |                            |       | Х     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | LABORATORY<br>TURNAROUND                                |
| TP14_0.1-0.2                                                         | 16                |                                                   |        |                            |       | Х     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        | _      |        |        |        |            | Standard                                                |
| TP14_1.0-1.1                                                         |                   |                                                   |        |                            |       | Х     |                                  |                                         |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | 24 Hours                                                |
| TP14_1.5-1.6                                                         | 17                |                                                   |        |                            |       | Х     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | 48 Hours                                                |
| TP15_0.1-0.2                                                         | 18                |                                                   |        |                            |       | Х     |                                  | ×                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | 72 Hours                                                |
| TP15_1.0-1.1                                                         |                   |                                                   |        | ,                          |       | X     |                                  |                                         |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            | Other                                                   |
| TP15_1.7-1.8                                                         | 19                | 4                                                 | V      | 1                          |       | X     |                                  | X                                       |                |                  |                   |                  |          |                  |                            |                                   |            |        |        |        |        |        |            |                                                         |
| Container Type:<br>J= solvent washed, ad<br>S= solvent washed, ad    | cid rinsed gla    |                                                   | ss jar |                            |       | Inve  | stigato                          | or: I atte                              | est that       | at thes<br>ard E | se san<br>I field | nples v<br>sampl | were c   | ollecto          | ed in a                    | ccord                             | ance       | F      | Report | with E | I Wast | e Clas | sificati   | on Table                                                |
| P= natural HDPE plas<br>VC= glass vial, Teflon<br>ZLB = Zip-Lock Bag |                   |                                                   |        |                            |       | Sam   |                                  | ame (El                                 | ):             |                  |                   | Rece             | ived by  | (SGS)            | ha                         |                                   |            | Sam    | pler's | Comr   | ments: |        |            |                                                         |
| Och .                                                                |                   | S                                                 |        | , 55 Miller S<br>NT NSW 20 |       |       | 10                               | iv                                      | les            |                  |                   |                  | nature   | 3/               | Bu                         | hi                                | 1          |        |        |        |        |        |            |                                                         |
| eiaus                                                                | trali             | а                                                 | Ph:    | 9516 0722<br>ustralia.com  |       | IMF   | 13/                              | 7/20<br><b>TAN</b> 7                    | :              |                  |                   | Date             | 131      | 07               | 20                         | 0                                 | 3.3        | Þ      |        |        |        |        |            |                                                         |
| Contamination   Reme                                                 | cuation   Geotech | nnicăl                                            | _      | 018 FORM v.4 - SGS         |       | Plea  | ase e-                           | mail lat                                | orato          | ry res           | ults to           | : lab(           | @eia     | ustra            | alia.c                     | om.a                              | u          |        |        |        |        |        |            |                                                         |

| Sheet 3 of                                                                      | 4                        |                                                     |             |                          | Sam   | ple N | 1atrix                           |                                         |                |           |         |                  |          |                         | Ana                        | lysis                             |                  |        |          |        |        |        |            | Comments                                                |
|---------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------|-------------|--------------------------|-------|-------|----------------------------------|-----------------------------------------|----------------|-----------|---------|------------------|----------|-------------------------|----------------------------|-----------------------------------|------------------|--------|----------|--------|--------|--------|------------|---------------------------------------------------------|
| Site:<br>2 Mandala Par                                                          | ade, Cas                 | tle Hill                                            |             | Project No: E24724.      |       |       |                                  |                                         |                |           |         |                  |          |                         | (e)                        | ctivity)                          |                  |        |          |        |        |        |            | HM A Arsenic Cadmium Chromium                           |
|                                                                                 |                          |                                                     |             | E02                      |       |       | nt, etc.)                        | Stos                                    | AHS            |           |         |                  |          | tion                    | chang                      | onduc                             |                  |        |          |        |        |        |            | Copper<br>Lead                                          |
| Laboratory:                                                                     | ALEXA                    | stralia<br>33 Maddox 3<br>NDRIA NSW<br>94 0400 F: 0 | 2015        | 99                       |       |       | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | /TRH/BTEX |         |                  | SC       | Asbestos Quantification | pH / CEC (cation exchange) | pH / EC (electrical conductivity) | Dewatering Suite | S      |          |        |        |        | HM B / PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |
| Sample<br>ID                                                                    | Laboratory               | Container<br>Type                                   |             | mpling                   | WATER | =     | HERS                             | MA/CP/O                                 | HM A /T        | HM A /    | ВТЕХ    | VOCs             | Asbestos | sbesto                  | 1/CE                       | 1/EC                              | ewate            | sPOCAS | PFAS     |        |        |        | CLP H      | Cadmium<br>Chromium<br>Lead                             |
|                                                                                 | 10                       |                                                     | Date        | Time                     | -     | SOIL  | О                                | IO                                      | I              | I         | m       | >                | A        | 4                       | ď                          | d                                 |                  | S      | <u>п</u> |        |        |        | -          | Mercury<br>Nickel                                       |
| TP16_0.1-0.2                                                                    | 20                       | J/ZLB                                               | 8/7/20      | AM/PM                    |       | X     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | Dewatering Suite<br>pH & EC                             |
| TP16_1.3-1.4                                                                    |                          |                                                     |             | 1                        |       | Х     |                                  |                                         |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | TDS / Turbidity NTU<br>Hardness                         |
| TP17_0.1-0.2                                                                    | 21                       |                                                     |             |                          |       | Х     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | Total Cyanide<br>Metals (Al, As, Cd, Cr,                |
| TP17_0.8-0.9                                                                    |                          |                                                     |             |                          |       | Х     |                                  |                                         |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX     |
| TP18_0.1-0.2                                                                    | 22                       |                                                     |             |                          |       | Х     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | PAH<br>Total Phenol                                     |
| TP18_0.9-1.0                                                                    |                          |                                                     |             |                          |       | Х     |                                  |                                         |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | LABORATORY<br>TURNAROUND                                |
| TP18_1.8-1.9                                                                    | 23                       |                                                     |             |                          |       | Х     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | Standard                                                |
| TP18_2.2-2.3                                                                    |                          |                                                     |             |                          |       | Х     |                                  | Ì                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | 24 Hours                                                |
| TP19_0.1-0.2                                                                    | 24                       |                                                     |             |                          |       | Х     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | 48 Hours                                                |
| TP19_0.8-0.9                                                                    |                          |                                                     |             |                          |       | Х     |                                  |                                         |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | 72 Hours                                                |
| TP19_1.4-1.5                                                                    | 25                       | 1                                                   | J           |                          |       | Х     |                                  | X                                       |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            | Other                                                   |
|                                                                                 |                          |                                                     |             |                          |       | Х     |                                  |                                         |                |           |         |                  |          |                         |                            |                                   |                  |        |          |        |        |        |            |                                                         |
| Container Type: J= solvent washed, ad S= solvent washed, a P= natural HDPE plas | cid rinsed gla           |                                                     | ss jar      |                          |       | Inve  | stigato                          | or: I att<br>with                       |                |           |         | nples v<br>sampl |          |                         |                            | ccord                             | ance             | F      | Report   | with E | I Wast | e Clas | sificati   | on Table                                                |
| VC= glass vial, Teflor<br>ZLB = Zip-Lock Bag                                    |                          |                                                     |             |                          |       | Sam   |                                  | ame (E<br>i Wei                         | ):             |           |         | Rece             | ived by  | (SGS)                   |                            |                                   |                  | Sam    | pler's   | Comr   | nents: |        |            |                                                         |
| 12                                                                              |                          | S                                                   |             | 55 Miller S<br>NT NSW 20 |       |       |                                  | w                                       | S              |           |         | . 🗴              | nature   | 78                      | Seh                        | -1                                |                  |        |          |        |        |        |            |                                                         |
| eiaus                                                                           | trali                    | 2                                                   | Ph: 9       | 9516 0722                |       | Dat   | 13/                              | 7/20                                    |                |           |         | Date             | 151      | 071                     | 20                         | @:                                | 3.3              | 5      |          |        |        |        |            |                                                         |
| Contamination   Reme                                                            | Udll<br>diation   Geotec | hnical                                              |             | ustralia.com             | n.au  |       |                                  | TAN                                     |                |           | ulte t  | Joh              | ancie.   | Lictra                  | olio o                     | om o                              |                  |        |          |        |        |        |            |                                                         |
|                                                                                 |                          |                                                     | COC March 2 | 018 FORM v.4 - SGS       |       | Plea  | se e-                            | mail la                                 | porato         | bry res   | uits to | i lab            | weia     | เนรแล                   | alla.C                     | om.a                              | u                |        |          |        |        |        |            |                                                         |

| Sheet 4 of                                                                           | 4                    |                                                        |                    |          |                        | Sam   | ple N        | latrix                    |                                                       |                |           |         |       |              |                         | Ana                   | lysis                             |                  |        |        |        |         |         |            | Comments                                                |
|--------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------|--------------------|----------|------------------------|-------|--------------|---------------------------|-------------------------------------------------------|----------------|-----------|---------|-------|--------------|-------------------------|-----------------------|-----------------------------------|------------------|--------|--------|--------|---------|---------|------------|---------------------------------------------------------|
| Site:<br>2 Mandala Par                                                               | ade, Cas             | tle Hill                                               |                    | <u> </u> | ject No:<br>4724.<br>2 |       |              | t, etc.)                  | AHs                                                   | МS             |           |         |       |              | ion                     | hange)                | inductivity)                      |                  |        |        |        |         |         |            | HM A Arsenic Cadmium Chromium Copper Lead               |
| Laboratory:                                                                          | ALEXAN               | stralia<br>33 Maddox S<br>NDRIA NSW 1<br>94 0400 F: 02 | 2015               | 499      |                        |       |              | (i.e. Fibro, Paint, etc.) | HM <sup>A</sup> /TRH/BTEX/PAHs<br>OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | /TRH/BTEX |         |       | SC           | Asbestos Quantification | CEC (cation exchange) | pH / EC (electrical conductivity) | Dewatering Suite | S      |        |        |         |         | HM B / PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |
| Sample<br>ID                                                                         | Laboratory<br>ID     | Container<br>Type                                      | Sa<br>Date         | amplin   | Time                   | WATER | SOIL         | OTHERS (i.e.              | HM A /                                                | HM A /         | HM A /    | ВТЕХ    | VOCs  | Asbestos     | Asbesto                 | pH / CE               | эн / ЕС                           | Dewate           | sPOCAS | PFAS   |        |         |         | TCLP H     | Cadmium<br>Chromium<br>Lead<br>Mercury                  |
| QD1                                                                                  | 26                   | J                                                      | 8/7/20             | -        |                        | >     | X            | 0                         |                                                       | _              |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         | _          | Nickel  Dewatering Suite                                |
| QD2                                                                                  | 27                   | J                                                      | 1                  |          | 1                      |       | Х            |                           |                                                       |                | X         |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | pH & EC<br>TDS / Turbidity NTU<br>Hardness              |
| QR1                                                                                  | 28                   | P,S,2Vc                                                |                    |          |                        | Х     |              |                           |                                                       |                | X         |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | Total Cyanide<br>Metals (Al, As, Cd, Cr,                |
| QRB1                                                                                 |                      | P,S,2Vc                                                | V                  |          | V                      | Х     |              |                           |                                                       |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX     |
| QTB1                                                                                 | 29                   |                                                        | Danne              |          |                        |       | Х            |                           |                                                       |                | *         | X       |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | PAH<br>Total Phenol                                     |
| QTS1                                                                                 | 30                   | Lai                                                    | Prepai             | rea      |                        |       | Х            |                           |                                                       |                |           | X       |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | LABORATORY<br>TURNAROUND                                |
| BH1-0-1-0.2                                                                          | -31                  | J/ZLB                                                  | 8/7/3              | 20       | Ampu                   |       | X            |                           | X                                                     |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | Standard                                                |
| BH1-0.7-0.                                                                           | 8 32                 | _                                                      |                    |          | 1                      |       | X            |                           | X                                                     |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | 24 Hours                                                |
| BH1-1.4-1.5                                                                          |                      | 1                                                      | 1                  |          | 4                      |       | ×            |                           |                                                       |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | 48 Hours                                                |
|                                                                                      |                      |                                                        |                    | _        |                        |       |              |                           |                                                       |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | 72 Hours                                                |
|                                                                                      |                      |                                                        |                    | -        |                        |       |              |                           |                                                       |                |           |         |       |              |                         |                       |                                   |                  |        |        |        |         |         |            | Other                                                   |
| Container Type: J= solvent washed, aci S= solvent washed, aci P= natural HDPE plasti | d rinsed gla         |                                                        | s jar              |          |                        |       | Inves        | stigato                   | r: I atte<br>with                                     |                |           | se sam  |       |              |                         |                       | ccord                             | ance             | F      | Report | with E | l Waste | e Class | sificati   | on Table                                                |
| VC= glass vial, Teflon S<br>ZLB = Zip-Lock Bag                                       |                      |                                                        |                    |          |                        |       | Samp<br>Prii | - 4                       | ame (El<br>Wei                                        | ):             |           |         | Rece  | ived by      | (SGS)                   | عطد                   | ٦                                 |                  | Sam    | pler's | Comr   | nents:  |         |            |                                                         |
| 120                                                                                  |                      |                                                        | uite 6.01<br>PYRMO | NT N     | NSW 200                |       | Sigr         | 13/                       | 7/20                                                  | S              |           |         | Sign  | nature       | 32                      | Bi                    | 3                                 | 24               |        |        |        |         |         |            |                                                         |
| eiaus:                                                                               | traliation   Geotech | a                                                      | lab@eia            | ustra    |                        | au    |              | OR                        | TANT                                                  |                |           |         |       |              | (20                     |                       |                                   |                  |        |        |        |         |         |            |                                                         |
|                                                                                      |                      |                                                        | COC March 2        | 018 FORM | M v.4 - SGS            |       | Plea         | se e-r                    | nail lat                                              | orato          | ry res    | ults to | : lab | <u>w</u> eia | ustra                   | illa.c                | om.a                              | u                |        |        |        |         |         |            |                                                         |





CLIENT DETAILS

Telephone

Facsimile

LABORATORY DETAILS

Li Wei Contact

**EI AUSTRALIA** Client

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**PYRMONT NSW 2009** 

61 2 95160722 (Not specified)

Email li.wei@eiaustralia.com.au

E24724.E02 2 Mandala Parade, Castle Hill Project

Order Number E24724.E02

32 Samples

**Huong Crawford** Manager

SGS Alexandria Environmental Laboratory

Unit 16 33 Maddox St Address

Alexandria NSW 2015

+61 2 8594 0400 Telephone

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Email au.environmental.sydney@sgs.com

Samples Received Mon 13/7/2020 Report Due Mon 20/7/2020 SE208655 SGS Reference

SUBMISSION DETAILS

This is to confirm that 32 samples were received on Monday 13/7/2020. Results are expected to be ready by COB Monday 20/7/2020. Please quote SGS reference SE208655 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Yes Sample container provider SGS Samples received in correct containers Yes 13/7/2020 Date documentation received

Samples received in good order Yes Sample temperature upon receipt 5.7°C Turnaround time requested Standard Complete documentation received

Sample cooling method Sample counts by matrix

Type of documentation received Samples received without headspace Sufficient sample for analysis

31 Soil, 1 Water COC

Ice Bricks

Yes

Yes Yes

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

11 soil samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

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SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499

www.sgs.com.au



CLIENT DETAILS \_

Client El AUSTRALIA Project E24724.E02 2 Mandala Parade, Castle Hill

SUMMARY OF ANALYSIS

| No. | Sample ID    | OC Pesticides in Soil | OP Pesticides in Soil | PAH (Polynuclear Aromatic<br>Hydrocarbons) in Soil | PCBs in Soil | Total Recoverable<br>Elements in Soil/Waste | TRH (Total Recoverable<br>Hydrocarbons) in Soil | VOC's in Soil | Volatile Petroleum<br>Hydrocarbons in Soil |
|-----|--------------|-----------------------|-----------------------|----------------------------------------------------|--------------|---------------------------------------------|-------------------------------------------------|---------------|--------------------------------------------|
| 001 | TP7_0.1-0.2  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 002 | TP7_1.3-1.4  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 003 | TP8_0.1-0.2  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 004 | TP8_0.9-1.0  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 005 | TP9_0.1-0.2  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 006 | TP9_1.2-1.3  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 007 | TP10_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 008 | TP11_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 009 | TP11_0.8-0.9 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 010 | TP12_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 011 | TP12_0.8-0.9 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 012 | TP12_1.7-1.8 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 013 | TP13_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 014 | TP13_1.2-1.3 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 015 | TP13_2.0-2.1 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 016 | TP14_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 017 | TP14_1.5-1.6 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 018 | TP15_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 019 | TP15_1.7-1.8 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 020 | TP16_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 021 | TP17_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 022 | TP18_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 023 | TP18_1.8-1.9 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 024 | TP19_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

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Testing as per this table shall commence immediately unless the client intervenes with a correction .



CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

SUMMARY OF ANALYSIS

| No. | Sample ID    | OC Pesticides in Soil | OP Pesticides in Soil | PAH (Polynuclear Aromatic<br>Hydrocarbons) in Soil | PCBs in Soil | Total Recoverable<br>Elements in Soil/Waste | TRH (Total Recoverable<br>Hydrocarbons) in Soil | VOC's in Soil | Volatile Petroleum<br>Hydrocarbons in Soil |
|-----|--------------|-----------------------|-----------------------|----------------------------------------------------|--------------|---------------------------------------------|-------------------------------------------------|---------------|--------------------------------------------|
| 025 | TP19_1.4-1.5 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 026 | QD1          | -                     | -                     | -                                                  | -            | 7                                           | 10                                              | 11            | 7                                          |
| 027 | QD2          | -                     | -                     | -                                                  | -            | 7                                           | 10                                              | 11            | 7                                          |
| 029 | QTB1         | -                     | -                     | -                                                  | -            | -                                           | -                                               | 11            | -                                          |
| 030 | QTS1         | -                     | -                     | -                                                  | -            | -                                           | -                                               | 11            | -                                          |
| 031 | BH1_0.1-0.2  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 032 | BH1_0.7-0.8  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |

CONTINUED OVERLEAF

Testing as per this table shall commence immediately unless the client intervenes with a correction .



CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

SUMMARY OF ANALYSIS

| No. | Sample ID    | Fibre Identification in soil | Mercury in Soil | Moisture Content |
|-----|--------------|------------------------------|-----------------|------------------|
| 001 | TP7_0.1-0.2  | 2                            | 1               | 1                |
| 002 | TP7_1.3-1.4  | 2                            | 1               | 1                |
| 003 | TP8_0.1-0.2  | 2                            | 1               | 1                |
| 004 | TP8_0.9-1.0  | 2                            | 1               | 1                |
| 005 | TP9_0.1-0.2  | 2                            | 1               | 1                |
| 006 | TP9_1.2-1.3  | 2                            | 1               | 1                |
| 007 | TP10_0.1-0.2 | 2                            | 1               | 1                |
| 008 | TP11_0.1-0.2 | 2                            | 1               | 1                |
| 009 | TP11_0.8-0.9 | 2                            | 1               | 1                |
| 010 | TP12_0.1-0.2 | 2                            | 1               | 1                |
| 011 | TP12_0.8-0.9 | 2                            | 1               | 1                |
| 012 | TP12_1.7-1.8 | 2                            | 1               | 1                |
| 013 | TP13_0.1-0.2 | 2                            | 1               | 1                |
| 014 | TP13_1.2-1.3 | 2                            | 1               | 1                |
| 015 | TP13_2.0-2.1 | 2                            | 1               | 1                |
| 016 | TP14_0.1-0.2 | 2                            | 1               | 1                |
| 017 | TP14_1.5-1.6 | 2                            | 1               | 1                |
| 018 | TP15_0.1-0.2 | 2                            | 1               | 1                |
| 019 | TP15_1.7-1.8 | 2                            | 1               | 1                |
| 020 | TP16_0.1-0.2 | 2                            | 1               | 1                |
| 021 | TP17_0.1-0.2 | 2                            | 1               | 1                |
| 022 | TP18_0.1-0.2 | 2                            | 1               | 1                |
| 023 | TP18_1.8-1.9 | 2                            | 1               | 1                |
| 024 | TP19_0.1-0.2 | 2                            | 1               | 1                |

CONTINUED OVERLEAF

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14/07/2020 Page 4 of 6

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CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

SUMMARY OF ANALYSIS

| No. | Sample ID    | Fibre Identification in soil | Mercury in Soil | Moisture Content | VOCs in Water |
|-----|--------------|------------------------------|-----------------|------------------|---------------|
| 025 | TP19_1.4-1.5 | 2                            | 1               | 1                | -             |
| 026 | QD1          | -                            | 1               | 1                | -             |
| 027 | QD2          | -                            | 1               | 1                | -             |
| 028 | QR1          | -                            | -               | -                | 11            |
| 029 | QTB1         | -                            | -               | 1                | -             |
| 031 | BH1_0.1-0.2  | 2                            | 1               | 1                | -             |
| 032 | BH1_0.7-0.8  | 2                            | 1               | 1                | -             |

CONTINUED OVERLEAF

14/07/2020 Page 5 of 6

Testing as per this table shall commence immediately unless the client intervenes with a correction .





CLIENT DETAILS \_ Client El AUSTRALIA Project E24724.E02 2 Mandala Parade, Castle Hill

| - | SUMMARY | OF ANALYSIS — |                                 |                                               |                                                  |                                             | _ |
|---|---------|---------------|---------------------------------|-----------------------------------------------|--------------------------------------------------|---------------------------------------------|---|
|   | No.     | Sample ID     | Mercury (dissolved) in<br>Water | Trace Metals (Dissolved)<br>in Water by ICPMS | TRH (Total Recoverable<br>Hydrocarbons) in Water | Volatile Petroleum<br>Hydrocarbons in Water |   |
|   | 028     | QR1           | 1                               | 7                                             | 9                                                | 7                                           |   |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

14/07/2020 Page 6 of 6

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Testing as per this table shall commence immediately unless the client intervenes with a correction .

| Chart 1 of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -             |                        |                                                  |                | C          |                  | - 4 11 11 1                      | <u> </u>                                |                | _            |       |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     |          | -     |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------|--------------------------------------------------|----------------|------------|------------------|----------------------------------|-----------------------------------------|----------------|--------------|-------|---------|----------|-------------------------|------------|--------------------------------------------------|--------------------------------------------------|-------------------------|---------------------|-------------------|---------------------|----------|-------|---------------------------------------------|
| Sheet of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | <u>-</u>               | <del></del> -                                    |                | Sam        | ple M            | latrix                           | ļ.,                                     | ı              |              |       |         |          |                         | Ana        | lysis                                            |                                                  |                         |                     | <del></del> 1     |                     | Comments |       |                                             |
| Site:<br>2 wanda<br>Cas-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | 0                      | _                                                | Project No:    |            |                  |                                  |                                         |                |              |       |         |          |                         |            | <u>\$</u>                                        |                                                  |                         |                     |                   |                     |          |       | HM A<br>Arsenic                             |
| 2 wards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | la par        | adl,                   | <b>J</b>                                         | -29729.<br>Eoz | ŀ          |                  | $\hat{}$                         |                                         |                |              |       |         |          |                         | ge)        | ctivi                                            |                                                  |                         |                     |                   |                     |          |       | Cadmium<br>Chromium                         |
| cas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | the th        | iu                     |                                                  | Eoz            |            |                  | t, etc                           | AHs<br>tos                              | £              |              |       |         |          | ion                     | exchange)  | l pu                                             |                                                  |                         |                     |                   |                     | ·        |       | Copper<br>Lead                              |
| Laboratory:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Envirol       | ab Service             |                                                  |                | 1          |                  | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | ×            |       |         |          | Asbestos Quantification | exc        | pH / EC (electrical conductivity)                | 4                                                |                         |                     |                   |                     |          | I     | Mercury<br>Nickel                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | ley Street,<br>WOOD NS | N 0007                                           |                |            |                  | ibro,                            | BTE<br>B/A                              | 37             | 3TE          |       |         |          | ıanti                   | (cation    | ctric                                            | Suite                                            | ~                       |                     |                   |                     | *        | / РАН | Zinc                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | 910 6200               | W 2067                                           |                |            |                  | i.e. F                           | FE S                                    | F.             | HM≜/TRH/BTEX |       |         | s        | s Qı                    | (3)        | (ele                                             | Dewatering Suite                                 |                         |                     |                   |                     | l        | HM B  | HM <sup>B</sup><br>Arsenic                  |
| Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Laboratory    |                        | Sam                                              | pling          | l<br>K     |                  | :RS                              | A<br>70°F                               | ₽              | ≜ ∕∏         | ×     | SS      | Asbestos | esto                    | pH / CEC ( | 낊                                                | ater                                             | sPOCAS                  | က္                  |                   |                     |          | РН    | Cadmium<br>Chromium                         |
| ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ID            | Туре                   | Date                                             | Time           | WATER      | SOIL             | 置                                | Į≅ö                                     | HM ≜,          | ΣH           | втех  | VOCs    | Asb      | Asb                     | 님.         | HZ                                               | Dew                                              | sPO                     | PFAS                |                   |                     |          | TCLP  | Lead<br>Mercury                             |
| - T 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1             | ~                      | <del>                                     </del> |                |            | 1                |                                  |                                         |                |              |       |         |          |                         |            |                                                  | <del>  -</del> -                                 |                         |                     |                   |                     |          |       | Nickel                                      |
| 0-71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u> </u>      | 了<br>                  | 8/7/20                                           | s AMB          | <u>س</u> _ | X                |                                  |                                         |                | X            |       |         |          |                         |            |                                                  | <u> </u>                                         |                         |                     |                   |                     |          |       | Dewatering Suite<br>pH & EC                 |
| ST2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2             | J                      | 1                                                |                |            | 入                |                                  | <b>.</b>                                |                | X            |       |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     |          |       | TDS / Turbidity NTU<br>Hardness             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  | T                                                |                         |                     |                   |                     |          |       | Total Cyanide<br>Metals (Al, As, Cd, Cr,    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                | <u> </u>   |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  | <del>                                     </del> |                         |                     |                   |                     |          |       | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4) |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                | ļ.—        |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  | <u> </u>                                         |                         |                     |                   |                     |          |       | BTEX<br>PAH                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     | _        |       | Total Phenol                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            | -                |                                  |                                         |                |              |       |         |          |                         |            |                                                  |                                                  |                         |                     | 0                 |                     |          |       | LABORATORY<br>TURNAROUND                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            | ę <sup>Z</sup>                                   | nun                                              |                         | 12                  | Servio<br>Ashley  | St                  |          |       |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         | -          | ļ- <del>`</del> -                                | 1.5                                              |                         | swood :<br>/(: (02) | NSW 20<br>9910 62 | 0/<br><del>00</del> |          |       | Standard                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            | <u>J</u> 0                                       | 75                                               | 240                     |                     | 99 10 62<br>      |                     |          |       | 24 Hours                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        | ]                                                |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            | Dat                                              | ر. د ۲                                           | ived:                   | 3/7                 | 120               |                     |          |       | 48 Hours                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  | reivau                                           | <del>ived:</del><br>5v: |                     | 0,2               |                     |          |       |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  | +              | -          |                  |                                  |                                         |                |              |       |         |          |                         |            | Te                                               | ceivau                                           | #Amb                    | ent                 |                   |                     |          |       | 72 Hours                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                | ļ          |                  |                                  |                                         |                |              |       |         |          |                         |            | Co                                               | oling: le                                        | e/icep                  | ack<br>reken/l      | None              |                     |          |       | Other                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                                  |                |            |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     |          |       |                                             |
| Container Type:<br>J= solvent washed, aci                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | d rinsed.Tef  | lon sealed, glas       | s iar                                            |                |            | Inves            | tigato                           | r: I atte                               | est tha        | t thes       | e sam | ples v  | vere c   | ollecte                 | ed in a    | ccord                                            | lance                                            |                         |                     |                   | 1 1 0 2 6           | - 01     | ·6 ·  | Table                                       |
| S= solvent washed, ac<br>P= natural HDPE plast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | id rinsed gla |                        | <b>,</b>                                         |                |            |                  |                                  | with                                    | stand          | ard El       | field | sampli  | ing pro  | ocedui                  | res.       |                                                  |                                                  | F                       | keport              | WITH EI           | vvast               | e Class  | псац  | on Table                                    |
| VC= glass vial, Teflon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                        |                                                  |                | •          |                  |                                  | ame (EI)                                | ):             |              |       | Recei   | ived by  | (Enviro                 | olab) 🤇    | Sty.                                             |                                                  | Sam                     | pler's              | Comn              | nents:              |          |       |                                             |
| ZLB = Zip-Lock Bag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                        |                                                  |                | -,         | Prin             | *                                | We                                      | ふ              |              |       | Prin    | it Jas   | 500                     | Da         | 1                                                |                                                  |                         |                     |                   |                     |          |       |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | S                      | uite 6.01, 5                                     | 5 Miller Str   | root       | Sign             | ature                            | ( - ) /                                 | 2,4            |              |       | Sign    | ature    | <u>~</u>                | Mr         | <del>]                                    </del> |                                                  |                         |                     |                   |                     |          |       |                                             |
| i sin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                        | PYRMON1                                          |                |            |                  |                                  |                                         |                |              | 2011  |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     |          |       |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | trali.        | $\overline{}$          |                                                  | 16 0722        | -          | Date (3/7/20 166 |                                  |                                         |                |              |       |         | 1610     |                         |            |                                                  |                                                  |                         |                     |                   |                     |          |       |                                             |
| Contamination   Remed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LI dille      | <b>a</b>               | lab@eiaus                                        | iralia.com.    | au         |                  |                                  |                                         |                |              |       |         |          |                         |            |                                                  |                                                  |                         |                     |                   |                     |          |       |                                             |
| Service of the servic |               |                        | Pleas                                            | se e-n         | nail lat   | orato            | ry resi                          | ults to                                 | : lab@         | @eia         | ustra | ılia.co | om.a     | u 🔝                     |            |                                                  |                                                  |                         |                     |                   |                     |          |       |                                             |



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         | El Australia |
| Attention      | Lab Email    |

| Sample Login Details                 |                          |
|--------------------------------------|--------------------------|
| Your reference                       | E24724. E02, Castle Hill |
| Envirolab Reference                  | 246861                   |
| Date Sample Received                 | 13/07/2020               |
| Date Instructions Received           | 13/07/2020               |
| Date Results Expected to be Reported | 20/07/2020               |

| Sample Condition                                       |          |
|--------------------------------------------------------|----------|
| Samples received in appropriate condition for analysis | Yes      |
| No. of Samples Provided                                | 2 Soil   |
| Turnaround Time Requested                              | Standard |
| Temperature on Receipt (°C)                            | 10.2     |
| 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:



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| Sample ID | vTRH(C6-C10)/BTEXN in Soil | svTRH (C10-C40) in Soil | Acid Extractable metalsin soil |
|-----------|----------------------------|-------------------------|--------------------------------|
| QT1       | ✓                          | ✓                       | ✓                              |
| QT2       | ✓                          | ✓                       | ✓                              |

The '\sqrt{'} 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.

| Sheet _1 o                                                                       | f3             | _                                                 |           |                     | Sar       | nple l | Matrix                           |                                            | à              |                   |          |                  |          |                  | Ana                   | alysis                            |            |        |        |        |       |         |                                                         | Comments                                            |  |  |  |
|----------------------------------------------------------------------------------|----------------|---------------------------------------------------|-----------|---------------------|-----------|--------|----------------------------------|--------------------------------------------|----------------|-------------------|----------|------------------|----------|------------------|-----------------------|-----------------------------------|------------|--------|--------|--------|-------|---------|---------------------------------------------------------|-----------------------------------------------------|--|--|--|
| Site:                                                                            |                |                                                   |           | Project No          | ):        |        |                                  |                                            | 1              |                   |          |                  |          |                  |                       | 5                                 |            |        |        |        |       |         |                                                         | HM ≜<br>Arsenic                                     |  |  |  |
| 2 Mandala Pa                                                                     |                |                                                   |           | E24724.<br>E02      |           |        | t, etc.)                         | AHs                                        | ∖Hs            |                   |          |                  |          | ion              | hange)                | nductivity                        | onductivil |        |        |        |       |         |                                                         | Cadmium<br>Chromium<br>Copper<br>Lead               |  |  |  |
| Laboratory:                                                                      | ALEXA          | stralia<br>33 Maddox<br>NDRIA NSW<br>94 0400 F: 0 | 2015      | 499                 |           |        | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS<br>OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | A /TRH/BTEX       |          |                  | WH/s     | s Quantification | CEC (cation exchange) | pH / EC (electrical conductivity) | ing Suite  |        |        |        |       | MB/PAH  | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |                                                     |  |  |  |
| Sample<br>ID                                                                     | Laboratory     | Container<br>Type                                 |           | ampling             | WATER     | SOIL   | THERS                            | MA /                                       | НМА∕Т          | нМА∕Т             | втех     | VOCs             | Asbestos | Asbestos         | pH / CE               | H/EC                              | Dewatering | sPOCAS | PFAS   |        |       |         | TCLP HM                                                 | Cadmium<br>Chromium<br>Lead                         |  |  |  |
|                                                                                  | 2              |                                                   | Date      | _                   | +         | +      | o                                | $\overline{}$                              | т,             |                   | <u> </u> | >                | 4        | 4                | 0                     | ۵                                 | Δ          | S      | Δ.     | -      | -     | -       | -                                                       | Mercury<br>Nickel                                   |  |  |  |
| BH2_0.1-0.2                                                                      | 1              | J/ZLB                                             | 9/7/20    | AM/PM               | 1         | X      |                                  | X                                          |                |                   |          |                  |          | ļ.,              |                       |                                   |            |        |        |        | _     | _       |                                                         | Dewatering Suite<br>pH & EC                         |  |  |  |
| BH2_0.7-0.8                                                                      |                |                                                   | 1 1       |                     | _         | X      |                                  |                                            |                |                   |          |                  |          |                  |                       |                                   |            |        |        |        |       |         |                                                         | TDS / Turbidity NTU<br>Hardness                     |  |  |  |
| BH2_1.2-1.3                                                                      | 2              | -                                                 |           |                     |           | X      |                                  |                                            | X              |                   |          |                  |          |                  |                       |                                   |            |        |        |        |       |         |                                                         | Total Cyanide  Metals (Al, As, Cd, Cr,              |  |  |  |
| BH2_1.6-1.7                                                                      | 3              | J                                                 |           |                     |           | Х      |                                  | X                                          |                |                   |          | 4                |          |                  |                       |                                   |            |        | -FR1   |        |       |         |                                                         | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX |  |  |  |
| BH2_1.9-2.0                                                                      |                | J                                                 |           |                     |           | X      |                                  |                                            |                |                   |          |                  | 7        |                  |                       |                                   |            |        |        | 367    |       | 44      |                                                         | PAH<br>Total Phenol                                 |  |  |  |
| BH2_2.4-2.5                                                                      |                | J/ZLB                                             |           |                     |           | Х      |                                  |                                            |                |                   |          |                  | 100      |                  |                       |                                   |            |        |        |        |       |         |                                                         | LABORATORY<br>TURNAROUND                            |  |  |  |
| BH2_2.9-3.0                                                                      |                | J                                                 | 8         | J                   |           | Х      |                                  |                                            |                |                   |          |                  |          |                  | 1                     |                                   |            |        |        |        |       |         |                                                         | Standard                                            |  |  |  |
| BH3M_0.1-0.2                                                                     | 4              | ZLB                                               | 13/7/2    | 0 AM/P              | M         | Х      |                                  |                                            |                |                   |          | 7                | X        |                  |                       |                                   | EHS        |        |        |        |       |         |                                                         | 24 Hours                                            |  |  |  |
| BH3M_0.7-0.8                                                                     | 5              | J/ZLB                                             | 1         | 1                   |           | X      |                                  | X                                          | ۲.             | 7 7               |          |                  |          | 2                | 1                     |                                   | 20         |        |        |        |       |         |                                                         | 48 Hours                                            |  |  |  |
| BH3M_1.2-1.3                                                                     |                | 1                                                 |           |                     | $\top$    | X      |                                  |                                            |                |                   |          |                  |          |                  |                       |                                   |            |        |        |        |       |         |                                                         | 72 Hours                                            |  |  |  |
| BH3M_1.7-1.8                                                                     | 6              |                                                   |           |                     | T         | X      |                                  | X                                          |                |                   |          |                  |          |                  |                       |                                   |            |        |        |        |       |         |                                                         | Other_                                              |  |  |  |
| BH3M_2.2-2.3                                                                     |                |                                                   |           |                     | $\dagger$ | X      |                                  |                                            |                |                   |          |                  |          |                  |                       |                                   |            |        |        |        | 1     | ř       | _                                                       |                                                     |  |  |  |
| Container Type: J= solvent washed, ac S= solvent washed, ac P= natural HDPE plas | cid rinsed gla | I<br>flon sealed, gla<br>ass bottle               | ss jar    |                     |           | +      | stigato                          | r: I atte                                  | est tha        | it thes<br>ard El | e sam    | ples v<br>sampli | were co  | ollecte          | ed in a<br>res.       | ccord                             | ance       | F      | Report | with E | I Was | te Clas | sificati                                                | on Table                                            |  |  |  |
| VC= glass vial, Teflon ZLB = Zip-Lock Bag                                        |                |                                                   |           |                     |           | Sam    | int.                             | ame (EI)                                   | :              |                   | ,        | Recei            | ived by  |                  |                       |                                   |            | Sam    | pler's | Com    | nents |         |                                                         | 10                                                  |  |  |  |
| ZEB - ZIP-ZOOK BAS                                                               |                | S                                                 |           | , 55 Miller S       |           | Sig    | L1<br>nature                     | Wei                                        | ~              | 5                 |          | Sign             | nature   | hi               | Zhi                   |                                   |            |        |        |        |       |         |                                                         |                                                     |  |  |  |
| Ojoric                                                                           | trali          | 2                                                 |           | 9516 0722           | 003       | Dat    | 17/                              | 7/20                                       |                |                   |          | Date             | e<br>[   | 71               | 7                     | 3                                 | -35        |        |        |        |       |         |                                                         |                                                     |  |  |  |
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| 112                         | 1                                                                                       |                                                                                                                                              | 16/7/                                                                 | 20                                                                                                                                                                                                                                                                              | AM/PN                                                                                                                                                                                                                                                                                             |                                                                                                   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| PYRMONT NSW 2 Ph: 9516 0722 |                                                                                         |                                                                                                                                              |                                                                       |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                   |                                                                                                   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|                             | SGS Au Unit 16, ALEXAN P: 02 85  Laboratory ID  7 d rinsed, Tef id rinsed gla ic bottle | SGS Australia Unit 16, 33 Ma ALEXANDRIA P: 02 8594 04  Laboratory Con T  J/ZL  J  J/ZL  J  J/ZL  d rinsed, Teflon sea id rinsed glass bottle | ALEXANDRIA NSW P: 02 8594 0400 F: 02 Laboratory   Container Type    7 | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594  Laboratory Container Type Da  7 J/ZLB 13/7/ 2J/ZLB  J  U J/ZLB  J  U J/ZLB  J  U J/ZLB  d rinsed, Teflon sealed, glass jar id rinsed glass bottle ic bottle Septum  Suite 6.0 PYRM Ph: | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date  7 J/ZLB 13/7/20  2J/ZLB  J  J/ZLB  J  J/ZLB  J  J/ZLB  J  Grinsed, Teflon sealed, glass jar id rinsed glass bottle ic bottle Septum  Suite 6.01, 55 PYRMONT Ph: 951 | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time  7 J/ZLB 13/7/20 AM/PN  2J/ZLB J  2J/ZLB J  4 I I I I I I I I I I I I I I I I I I | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time  7 J/ZLB 13/7/20 AM/PM  2J/ZLB  J  UJ/ZLB  J  UJ/ZLB  J/ZLB  J  UJ/ZLB  J/ZLB  J  UJ/ZLB  J  UJ/ZLB  J  UJ/ZLB  J  Sampling Date Time  AM/PM  AM/PM  AM/PM  AM/PM  Suite 6.01, 55 Miller Street, PYRMONT NSW 2009 | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time AM/PM X  14/7/20 AM/PM X  2J/ZLB 13/7/20 AM/PM X  2J/ZLB X  3 J X  2J/ZLB X  4 J X  4 J X  5 J/ZLB X | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time Sampling Date Time X X X X X X X X X X X X X X X X X X X | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time Date Time  7 J/ZLB 13/7/20 AM/PM X  2J/ZLB X  2J/ZLB X  2J/ZLB X  2J/ZLB X  3 M/PM X  X  4 M/PM X  5 M/PM X  5 M/PM X  5 M/PM X  6 J/ZLB | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0499  Laboratory Container Type Date Time W W Y W W W W W W W W W W W W W W W W | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0409  Laboratory Container Type Date Time M X X X X X X X X X X X X X X X X X X | SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0409  Leboratory Container ID Date Time Date Time Date Time Date Time Date Time Date Time Date Date Date Date Date Date Date Dat | Rade, Castle Hill  E24724. E02  SGS Australia Unit 16, 33 Maddox Street, ALEXANDRIA NSW 2015 P: 02 8594 0400 F: 02 8594 0409  Laboratory Type Date Time Date Date Date Date Date Date Date Dat | SGS Australia   Unit 16, 33 Maddox Street,   ALEXANDRIA NSW 2015   P: 02 8594 0400 F: 02 8594 0409   Unit 16, 33 Maddox Street,   ALEXANDRIA NSW 2015   Date   Time   Date   Time   Date   Unit 16, 33 Maddox Street,   ALEXANDRIA NSW 2015   Date   Time   Date   Unit 16, 33 Maddox Street,   ALEXANDRIA NSW 2015   Date   Time   Date   Unit 16, 33 Maddox Street,   ALEXANDRIA NSW 2015   Date   Unit 16, 33 Maddox Street,   Un | SGS Australia                                                   |

| Sheet_3 of                                                                                                                                         | 11 P 1 C 1 7771  |                                                   |         |             |      |                              | ple N    | /latrix      |                                                        |                                  |                                                                                            |      |       |                      |                         | Ana        | lysis                                  |                  | •                   |      |  |          |   |                      | Comments                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------|---------|-------------|------|------------------------------|----------|--------------|--------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------|------|-------|----------------------|-------------------------|------------|----------------------------------------|------------------|---------------------|------|--|----------|---|----------------------|---------------------------------------------------------|
| Site:<br>2 Mandala Par                                                                                                                             | ade, Cas         | tle Hill                                          |         | E247<br>E02 |      |                              |          | Paint, etc.) | AHs                                                    | λHs                              |                                                                                            |      |       |                      | ion                     | exchange)  | onductivity)                           |                  |                     |      |  |          |   |                      | HM A Arsenic Cadmium Chromium Copper Lead               |
| Laboratory:                                                                                                                                        | ALEXAN           | stralia<br>33 Maddox<br>NDRIA NSW<br>94 0400 F: 0 | 2015    | 199         |      |                              |          | i.e. Fibro,  | HM. <sup>A</sup> /TRH/BTEX/PAHs<br>OCP/OP/PCB/Asbestos | HM $^{	extsf{A}}$ /TRH/BTEX/PAHs | A /TRH/BTEX                                                                                |      |       | SC                   | Asbestos Quantification | cation     | / EC (electrical conductivity)         | Dewatering Suite |                     |      |  |          |   | HM <sup>B</sup> /PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic |
| Sample<br>ID                                                                                                                                       | Laboratory<br>ID | Container<br>Type                                 | Sa      | mpling      | Γime | WATER                        | SOIL     | OTHERS (     | HM A /                                                 | HM A /T                          | HM A /T                                                                                    | втех | VOCs  | Asbestos             | Asbesto                 | pH / CEC ( | pH / EC                                | Dewate           | sPOCAS              | PFAS |  |          |   | TCLP H               | Cadmium<br>Chromium<br>Lead<br>Mercury                  |
| BH5M_0.5-0.6                                                                                                                                       |                  | J/ZLB                                             | 16/7/20 | _           | A/PM |                              | X        |              |                                                        | _                                | _                                                                                          | _    |       |                      |                         | _          | _                                      | _                |                     | _    |  |          |   | -                    | Nickel  Dewatering Suite                                |
| BH5M_1.0-1.1                                                                                                                                       |                  | 1                                                 | 1       | +           | 1    |                              | Х        |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | pH & EC<br>TDS / Turbidity NTU<br>Hardness              |
| BH5M_1.5-1.6                                                                                                                                       | 13               |                                                   |         | $\top$      |      |                              | X        |              |                                                        | χ                                |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | Total Cyanide<br>Metals (Al, As, Cd, Cr,                |
| BH5M_1.8-1.9                                                                                                                                       |                  | J                                                 |         |             |      |                              | X        |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX     |
| BH5M_1.9-2.0                                                                                                                                       | 14               | J/ZLB                                             | V       |             | 1/   |                              | Х        |              | X                                                      |                                  |                                                                                            |      |       | -                    |                         |            |                                        |                  |                     |      |  |          |   |                      | PAH<br>Total Phenol                                     |
|                                                                                                                                                    |                  |                                                   |         |             | •    |                              |          |              |                                                        |                                  |                                                                                            |      | 1     |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | LABORATORY<br>TURNAROUND                                |
|                                                                                                                                                    |                  |                                                   |         |             |      |                              |          |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   | -                    | x Standard                                              |
|                                                                                                                                                    |                  |                                                   |         |             |      | _                            |          |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | 24 Hours                                                |
|                                                                                                                                                    |                  |                                                   |         | _           |      |                              |          |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      | 48 Hours                                                |
|                                                                                                                                                    |                  |                                                   |         | $\perp$     |      |                              |          | _            |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          | - |                      | 72 Hours                                                |
|                                                                                                                                                    |                  |                                                   |         | _           |      |                              |          |              |                                                        |                                  |                                                                                            |      |       | -                    |                         |            |                                        |                  |                     |      |  |          |   |                      | Other                                                   |
| Container Type: J= solvent washed, acid rinsed,Teflon sealed, glass jar S= solvent washed, acid rinsed glass bottle P= natural HDPE plastic bottle |                  |                                                   |         |             |      |                              |          |              |                                                        |                                  | st that these samples were collected in accordant<br>tandard El field sampling procedures. |      |       |                      |                         | ance       | ce Report with El Waste Classification |                  |                     |      |  | on Table |   |                      |                                                         |
| VC= glass vial, Teflon Septum ZLB = Zip-Lock Bag                                                                                                   |                  |                                                   |         |             |      |                              |          |              | ame (El                                                |                                  |                                                                                            |      | Pri   | ived by<br>A<br>G(9) |                         | 26         | 1                                      |                  | Sampler's Comments: |      |  |          |   |                      |                                                         |
| Suite 6.01, 55 Miller Str<br>PYRMONT NSW 200                                                                                                       |                  |                                                   |         |             |      | Street, Signature Signature, |          |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      |                                                         |
| eiaus                                                                                                                                              | ralia            | 2                                                 | Ph: 9   | 516 0       | 722  | 17/7/20                      |          |              |                                                        |                                  |                                                                                            |      |       |                      |                         |            |                                        |                  |                     |      |  |          |   |                      |                                                         |
| Contamination   Remediation   Geotechnical lab@eiaustralia.com.au                                                                                  |                  |                                                   |         | au          |      |                              | nail lat |              | ry res                                                 | ults to                          | : lab(                                                                                     | @eia | ustra | alia.c               | om.a                    | u          | •                                      |                  |                     |      |  |          |   |                      |                                                         |





Address

CLIENT DETAILS

Telephone

LABORATORY DETAILS

Li Wei Contact

**EI AUSTRALIA** Client Address **SUITE 6.01** 

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PYRMONT NSW 2009

61 2 95160722

(Not specified) Facsimile

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E24724.E02 2 Mandala Parade, Castle Hill Project

E24724.E02 Order Number Samples 14

Manager

**Huong Crawford** 

SGS Alexandria Environmental Laboratory

Unit 16, 33 Maddox St

Alexandria NSW 2015

Telephone +61 2 8594 0400

+61 2 8594 0499 Facsimile

au.environmental.sydney@sgs.com Fmail

Fri 17/7/2020

Report Due Fri 24/7/2020

SE208846 SGS Reference

Samples Received

SUBMISSION DETAILS

This is to confirm that 14 samples were received on Friday 17/7/2020. Results are expected to be ready by COB Friday 24/7/2020. Please quote SGS reference SE208846 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Yes Sample container provider SGS Samples received in correct containers Yes 17/7/2020 Date documentation received Samples received in good order Yes Sample temperature upon receipt 14°C Turnaround time requested Standard

Complete documentation received Yes Ice Bricks Sample cooling method Sample counts by matrix 14 Soil Type of documentation received COC Samples received without headspace Yes Sufficient sample for analysis Yes

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

16 soil samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

This document is issued by the Company under its General Conditions of Service accessible at <a href="www.sgs.com/en/Terms-and-Conditions.aspx">www.sgs.com/en/Terms-and-Conditions.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499

www.sgs.com.au



CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

- SUMMARY OF ANALYSIS

| No. | Sample ID    | OC Pesticides in Soil | OP Pesticides in Soil | PAH (Polynuclear Aromatic<br>Hydrocarbons) in Soil | PCBs in Soil | Total Recoverable<br>Elements in Soil/Waste | TRH (Total Recoverable<br>Hydrocarbons) in Soil | VOC's in Soil | Volatile Petroleum<br>Hydrocarbons in Soil |
|-----|--------------|-----------------------|-----------------------|----------------------------------------------------|--------------|---------------------------------------------|-------------------------------------------------|---------------|--------------------------------------------|
| 001 | BH2_0.1-0.2  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 002 | BH2_1.2-1.3  | -                     | -                     | 26                                                 | -            | 7                                           | 10                                              | 11            | 7                                          |
| 003 | BH2_1.6-1.7  | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 004 | BH3M_0.1-0.2 | -                     | -                     | -                                                  | -            | 7                                           | -                                               | -             | -                                          |
| 005 | BH3M_0.7-0.8 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 006 | BH3M_1.7-1.8 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 007 | BH3M_2.8-2.9 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 008 | BH4M_0.3-0.5 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 009 | BH4M_1.4-1.5 | -                     | -                     | 26                                                 | -            | 7                                           | 10                                              | 11            | 7                                          |
| 010 | BH4M_2.9-3.0 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 011 | BH4M_4.9-5.0 | -                     | -                     | 26                                                 | -            | 7                                           | 10                                              | 11            | 7                                          |
| 012 | BH5M_0.1-0.2 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 013 | BH5M_1.5-1.6 | -                     | -                     | 26                                                 | -            | 7                                           | 10                                              | 11            | 7                                          |
| 014 | BH5M_1.9-2.0 | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |

\_ CONTINUED OVERLEAF





CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

- SUMMARY OF ANALYSIS

| No. | Sample ID    | Fibre Identification in soil | Mercury in Soil | Moisture Content |
|-----|--------------|------------------------------|-----------------|------------------|
| 001 | BH2_0.1-0.2  | 2                            | 1               | 1                |
| 002 | BH2_1.2-1.3  | -                            | 1               | 1                |
| 003 | BH2_1.6-1.7  | 2                            | 1               | 1                |
| 004 | BH3M_0.1-0.2 | 2                            | 1               | 1                |
| 005 | BH3M_0.7-0.8 | 2                            | 1               | 1                |
| 006 | BH3M_1.7-1.8 | 2                            | 1               | 1                |
| 007 | BH3M_2.8-2.9 | 2                            | 1               | 1                |
| 008 | BH4M_0.3-0.5 | 2                            | 1               | 1                |
| 009 | BH4M_1.4-1.5 | -                            | 1               | 1                |
| 010 | BH4M_2.9-3.0 | 2                            | 1               | 1                |
| 011 | BH4M_4.9-5.0 | -                            | 1               | 1                |
| 012 | BH5M_0.1-0.2 | 2                            | 1               | 1                |
| 013 | BH5M_1.5-1.6 | -                            | 1               | 1                |
| 014 | BH5M_1.9-2.0 | 2                            | 1               | 1                |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details.

17/07/2020 Page 3 of 3

| Sheet of                                                                                                                                           |                               | San               | nple N          | /latrix                   |       |                                                                                                                    |                                  |                                         |                                      |                           |         | Ana           | lysis     |                         |                            |                                   |            |                |             |      | Comments |  |                      |                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------|-----------------|---------------------------|-------|--------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------|--------------------------------------|---------------------------|---------|---------------|-----------|-------------------------|----------------------------|-----------------------------------|------------|----------------|-------------|------|----------|--|----------------------|-----------------------------------------------------|
| Site: 2 Mandala                                                                                                                                    | a Para                        | role, a           | astle<br>till   | Project No:  Eza 7z4  Eo2 |       |                                                                                                                    | , etc.)                          | AHs ios                                 | Hs                                   |                           |         |               |           | no                      | nange)                     | nductivity)                       |            |                |             |      |          |  |                      | HM A<br>Arsenic<br>Cadmium<br>Chromium<br>Copper    |
| Laboratory:                                                                                                                                        | SGS Aus<br>Unit 16,<br>ALEXAN |                   | Street,<br>2015 |                           |       |                                                                                                                    | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS OCP/OP/PCB/Asbestos | $HM^{ \underline{A}}$ /TRH/BTEX/PAHs | HM <sup>A</sup> /TRH/BTEX |         |               | Sc        | Asbestos Quantification | pH / CEC (cation exchange) | pH / EC (electrical conductivity) | ring Suite |                |             |      |          |  | M <sup>B</sup> / PAH | Lead Mercury Nickel Zinc HM B Arsenic               |
| Sample<br>ID                                                                                                                                       | Laboratory<br>ID              | Container<br>Type | Sa<br>Date      | Time                      | WATER | SOIL                                                                                                               | OTHERS                           | HM A /                                  | HM ≜ /T                              | HM A /T                   | ВТЕХ    | VOCs          | Asbestos  | Asbesto                 | pH / CE                    | pH / EC                           | Dewatering | sPOCAS         | PFAS        |      |          |  | TCLP HM              | Cadmium<br>Chromium<br>Lead<br>Mercury              |
| BH6-0-1-0-Z                                                                                                                                        |                               | J/210             | 20/7            | /20 Bu/pa                 |       | K                                                                                                                  |                                  | X                                       |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | Nickel  Dewatering Suite                            |
| BH6-04-05                                                                                                                                          | 2                             | (                 | (               |                           |       | X                                                                                                                  |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | pH & EC<br>TDS / Turbidity NTU<br>Hardness          |
| BH6-0.9-100                                                                                                                                        |                               |                   |                 |                           |       | X                                                                                                                  |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | Total Cyanide<br>Metals (Al, As, Cd, Cr,            |
| BH6-19-15                                                                                                                                          | 4                             | V                 | V               | V                         |       | ×                                                                                                                  |                                  | X                                       |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | PAH<br>Total Phenol                                 |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | LABORATORY<br>TURNAROUND                            |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           | × .                     |                            |                                   |            |                |             |      |          |  |                      | Standard                                            |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            | EHS Sydney COC |             |      |          |  |                      | 24 Hours                                            |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            | SI                                | E2(        | )9(            | <b>)8</b> 2 | 2    |          |  |                      | 48 Hours                                            |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | 72 Hours                                            |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      | Other                                               |
|                                                                                                                                                    |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      |                                                     |
| Container Type: J= solvent washed, acid rinsed,Teflon sealed, glass jar S= solvent washed, acid rinsed glass bottle P= natural HDPE plastic bottle |                               |                   |                 |                           |       | Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures. |                                  |                                         |                                      |                           |         |               | sificatio | on Table                |                            |                                   |            |                |             |      |          |  |                      |                                                     |
| VC= glass vial, Teflon Septum ZLB = Zip-Lock Bag                                                                                                   |                               |                   |                 |                           |       | Samp<br><i>Prir</i>                                                                                                |                                  | ame (EI)                                | :                                    |                           |         | Recei<br>Prin | ived by   | (SGS):                  | :                          |                                   |            | Sam            | pler's      | Comn | nents:   |  |                      |                                                     |
| Suite 6.01, 55 Miller S<br>PYRMONT NSW 2<br>Ph: 9516 0722                                                                                          |                               |                   |                 |                           |       |                                                                                                                    |                                  |                                         |                                      |                           |         |               |           |                         |                            |                                   |            |                |             |      |          |  |                      |                                                     |
| Contamination   Remediation   Geotechnical lab@eiaustralia.com                                                                                     |                               |                   |                 |                           | au    |                                                                                                                    |                                  | ANT                                     |                                      |                           |         |               | 20 6/     | الم                     |                            | (                                 | -5/10      |                |             |      |          |  |                      |                                                     |
|                                                                                                                                                    | COC March 2018 FORM v.4 - SG  |                   |                 |                           |       |                                                                                                                    | se e-n                           | nail lab                                | orato                                | ry resi                   | ults to | : lab(        | geia      | ustra                   | ilia.co                    | om.a                              | u          |                |             |      |          |  |                      |                                                     |





CLIENT DETAILS

LABORATORY DETAILS

Li Wei Contact

**EI AUSTRALIA** Client Address **SUITE 6.01** 

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E24724.E02 2 Mandala Parade, Castle Hill Project

E24724.E02 Order Number

Samples 4

**Huong Crawford** Manager

SGS Alexandria Environmental Laboratory

Address Unit 16, 33 Maddox St

Alexandria NSW 2015

Telephone +61 2 8594 0400

+61 2 8594 0499 Facsimile

au.environmental.sydney@sgs.com Fmail

Thu 30/7/2020

Samples Received Thu 23/7/2020

Report Due SE209082 SGS Reference

SUBMISSION DETAILS

This is to confirm that 4 samples were received on Thursday 23/7/2020. Results are expected to be ready by COB Thursday 30/7/2020. Please quote SGS reference SE209082 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Complete documentation received Yes Yes Sample container provider SGS Ice Bricks Sample cooling method Samples received in correct containers Yes Sample counts by matrix 2 Soil 23/7/2020 Date documentation received Type of documentation received COC Samples received in good order Yes Samples received without headspace Yes Sample temperature upon receipt 8.1°C Sufficient sample for analysis Yes Turnaround time requested Standard

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

2 soil samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

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| Sheet of                                                                                                             |                                                                          |                                                   |        |        |                                                             | Sam      | ple IV    | latrix                           |                                            |                                |                  |                                        |        |                               |                         | Ana                        | lysis                             |                                     |            |      | S. S.                   | 43                                 |                              |              | Comments                                                               |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------|--------|--------|-------------------------------------------------------------|----------|-----------|----------------------------------|--------------------------------------------|--------------------------------|------------------|----------------------------------------|--------|-------------------------------|-------------------------|----------------------------|-----------------------------------|-------------------------------------|------------|------|-------------------------|------------------------------------|------------------------------|--------------|------------------------------------------------------------------------|
| Site:<br>2 mardala                                                                                                   | Para                                                                     | olen Cast                                         | te Him | Ezo.   | ect No:<br>9729                                             | 4        |           | , etc.)                          | 4Hs<br>tos                                 | Нs                             |                  |                                        |        |                               | uo                      | hange)                     | nductivity)                       |                                     |            |      | transformage            | banate, sub                        | often lete                   | _            | HM A Arsenic Cadmium Chromium Copper Lead                              |
| Laboratory:                                                                                                          | ALEXAN                                                                   | stralia<br>33 Maddox<br>IDRIA NSW<br>94 0400 F: 0 | 2015   | 199    |                                                             |          | :         | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS<br>OCP/OP/PCB/Asbestos | HM <sup>A</sup> /TRH/BTEX/PAHs | HM A /TRH/BTEX   |                                        |        | Sı                            | Asbestos Quantification | pH / CEC (cation exchange) | pH / EC (electrical conductivity) | Dewatering Suite                    | 60         |      | pH/Ec/solublecatorymorg | So lable anions (cl. cabanate, sub | Textural classification (CEC | TCLP HMB/PAH | Mercury<br>Nickel<br>Zinc<br>HM <sup>B</sup><br>Arsenic                |
| Sample<br>ID                                                                                                         | Laboratory<br>ID                                                         | Container<br>Type                                 |        | mpling |                                                             | WATER    | SOIL      | FHERS                            | IM A /                                     | MA/T                           | MA/T             | втех                                   | VOCs   | Asbestos                      | sbesto                  | H / CE                     | H/EC                              | ewater                              | SPOCAS     | PFAS | 4/Ec                    | lable.                             | rtu                          | CLP H        | Cadmium<br>Chromium<br>Lead                                            |
| Dun 2 30                                                                                                             | 45                                                                       | J                                                 | 9/7/2  | 200    | Time                                                        |          |           | Ö                                | IO                                         | I                              |                  | 8                                      | >      | ⋖                             | 4                       | G.                         | ā                                 |                                     | U)         | α.   | X                       | \<br>\                             | X 12                         | T            | Mercury<br>Nickel                                                      |
| BHZ_1.9-2.9<br>BHZ_2.9-3.0                                                                                           |                                                                          | ر<br>ح                                            | 1      | 10     | refran                                                      |          | X         |                                  |                                            |                                |                  |                                        |        |                               |                         |                            |                                   |                                     |            |      |                         |                                    | X                            |              | Dewatering Suite pH & EC TDS / Turbidity NTU                           |
|                                                                                                                      |                                                                          | )                                                 | 12/7/2 |        |                                                             | _        | X         |                                  |                                            |                                |                  |                                        |        |                               |                         |                            | _                                 |                                     |            |      | X                       | X                                  | X                            |              | Hardness<br>Total Cyanide                                              |
| BH 3M 2.8-2.9                                                                                                        |                                                                          |                                                   | 13/7/2 |        |                                                             |          | イ         |                                  | 9                                          | .                              |                  |                                        | _      |                               |                         |                            |                                   |                                     | •          |      | ~                       | X                                  | X                            |              | Metals (Al, As, Cd, Cr,<br>Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4) |
| BHGM - 44-4.)<br>BHGM - 4.9-5.                                                                                       | ofi                                                                      |                                                   | 14/7/2 | -      |                                                             |          | X         |                                  |                                            |                                | vv               |                                        |        |                               |                         |                            |                                   |                                     |            |      | ×                       |                                    | 1/                           |              | BTEX<br>PAH                                                            |
| DH4M_4.1-3.                                                                                                          | Ham. 4.7-5.0 11 d                                                        |                                                   |        |        |                                                             |          |           |                                  |                                            |                                |                  |                                        |        |                               |                         |                            |                                   |                                     |            |      | - "                     | ×                                  | 7                            |              | Total Phenol  LABORATORY                                               |
|                                                                                                                      |                                                                          |                                                   |        |        |                                                             |          |           | -                                |                                            |                                |                  |                                        |        |                               |                         |                            |                                   |                                     | 9          |      |                         |                                    |                              |              | TURNAROUND                                                             |
|                                                                                                                      |                                                                          |                                                   |        | -      |                                                             |          |           |                                  |                                            |                                |                  |                                        |        |                               |                         |                            |                                   |                                     |            |      |                         |                                    |                              |              | Standard                                                               |
|                                                                                                                      |                                                                          |                                                   |        | +      |                                                             |          |           |                                  |                                            | $\dashv$                       |                  |                                        |        |                               |                         |                            |                                   |                                     | *          |      |                         |                                    |                              |              | 24 Hours                                                               |
|                                                                                                                      |                                                                          |                                                   |        | +      |                                                             |          |           |                                  |                                            |                                |                  |                                        |        |                               |                         |                            |                                   |                                     |            |      |                         |                                    |                              |              | 48 Hours                                                               |
|                                                                                                                      |                                                                          |                                                   |        | +      |                                                             |          |           |                                  |                                            | $\dashv$                       |                  |                                        |        |                               |                         |                            |                                   |                                     |            |      | $\vdash$                |                                    |                              |              | 72 Hours                                                               |
|                                                                                                                      |                                                                          |                                                   |        | -      |                                                             |          |           |                                  | $\dashv$                                   | V                              |                  | _ N                                    |        |                               |                         |                            |                                   |                                     |            |      |                         |                                    |                              |              | Other                                                                  |
| Container Type: J= solvent washed, acid rinsed, Teflon sealed, glass jar S= solvent washed, acid rinsed glass bottle |                                                                          |                                                   |        |        |                                                             | Inves    | tigato    | r: I atte                        |                                            |                                | e sam<br>field s |                                        |        |                               |                         | ccorda                     | ance                              | Report with El Waste Classification |            |      |                         |                                    | on Table                     |              |                                                                        |
| P= natural HDPE plastic bottle<br>VC= glass vial, Teflon Septum<br>ZLB = Zip-Lock Bag                                |                                                                          |                                                   |        |        | 2                                                           | <u> </u> | 4         | me (EI):                         |                                            |                                |                  |                                        | ved by | (SGS):                        |                         |                            |                                   | Sam                                 | pler's     | Comm | ents:                   |                                    |                              |              |                                                                        |
| Suite 6.01, 55 Miller Stree                                                                                          |                                                                          |                                                   |        |        | Print Print Print  Signature Signature                      |          |           |                                  |                                            | en                             | in               | h                                      |        | SGS EHS Alexandria Laboratory |                         |                            |                                   |                                     | Laboratory |      |                         |                                    |                              |              |                                                                        |
| 030                                                                                                                  | PYRMONT NSW 2009                                                         |                                                   |        |        |                                                             |          | Date Date |                                  |                                            |                                | Date On London   |                                        |        |                               |                         |                            |                                   |                                     |            |      |                         |                                    |                              |              |                                                                        |
| eiaustralia Ph: 9516 0722 lab@eiaustralia.com.au                                                                     |                                                                          |                                                   |        | au     | IMPORTANT:                                                  |          |           |                                  |                                            | 211708-162                     |                  |                                        |        |                               |                         |                            |                                   | COC                                 |            |      |                         |                                    |                              |              |                                                                        |
| Contamination   Remedi                                                                                               | Contamination   Remediation   Geotechnical COC March 2018 FORM v.4 - SGS |                                                   |        |        | Please e-mail laboratory results to: lab@eiaustralia.com.au |          |           |                                  | ults to:                                   | lab@                           | ı L              | SE208846A COC<br>Received: 21-Jul-2020 |        |                               |                         | -2020                      |                                   |                                     |            |      |                         |                                    |                              |              |                                                                        |

thed) pdf page: 2 505 Ref. 5E208646A\_C



Client El AUSTRALIA Project E24724.E02 2 Mandala Parade, Castle Hill

| - SUMMAR | Y OF ANALYSIS ——————————————————————————————————— |                       |                       |                                                    |              |                                             |                                                 |               |                                            |
|----------|---------------------------------------------------|-----------------------|-----------------------|----------------------------------------------------|--------------|---------------------------------------------|-------------------------------------------------|---------------|--------------------------------------------|
| No.      | Sample ID                                         | OC Pesticides in Soil | OP Pesticides in Soil | PAH (Polynuclear Aromatic<br>Hydrocarbons) in Soil | PCBs in Soil | Total Recoverable<br>Elements in Soil/Waste | TRH (Total Recoverable<br>Hydrocarbons) in Soil | VOC's in Soil | Volatile Petroleum<br>Hydrocarbons in Soil |
| 001      | BH6_0.1-0.2                                       | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |
| 004      | BH6_1.4-1.5                                       | 29                    | 14                    | 26                                                 | 11           | 7                                           | 10                                              | 11            | 7                                          |

\_ CONTINUED OVERLEAF

Testing as per this table shall commence immediately unless the client intervenes with a correction .



| _ CLIENT | DETAILS      |         |                                          | _ |
|----------|--------------|---------|------------------------------------------|---|
| Client   | EI AUSTRALIA | Project | E24724.E02 2 Mandala Parade, Castle Hill |   |
|          |              |         |                                          |   |

| SUMMARY | OF ANALYSIS — |                              |                 |                  |
|---------|---------------|------------------------------|-----------------|------------------|
| No.     | Sample ID     | Fibre Identification in soil | Mercury in Soil | Moisture Content |
| 001     | BH6_0.1-0.2   | 2                            | 1               | 1                |
| 004     | BH6_1.4-1.5   | 2                            | 1               | 1                |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.

24/07/2020 Page 3 of 3

The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction .





Address

CLIENT DETAILS

Address

LABORATORY DETAILS

Li Wei Contact

**EI AUSTRALIA** Client

> **SUITE 6 01** 55 MILLER STREET

**PYRMONT NSW 2009** 

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Email li.wei@eiaustralia.com.au

E24724.E02 2 Mandala Parade, Castle Hill Project

Order Number E24724.E02 17

Samples

**Huong Crawford** Manager

SGS Alexandria Environmental Laboratory

Unit 16 33 Maddox St

Alexandria NSW 2015

+61 2 8594 0400 Telephone

+61 2 8594 0499 Facsimile

Email au.environmental.sydney@sgs.com

Tue 21/7/2020

Samples Received Report Due Tue 28/7/2020

SE208846A SGS Reference

SUBMISSION DETAILS

This is to confirm that 17 samples were received on Tuesday 21/7/2020. Results are expected to be ready by COB Tuesday 28/7/2020. Please quote SGS reference SE208846A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Yes Complete documentation received Yes Sample container provider SGS Sample cooling method Ice Bricks Samples received in correct containers Sample counts by matrix 5 Soil Yes 21/7/2020@8:16am Date documentation received Type of documentation received COC Samples received in good order Yes Samples received without headspace Yes Sample temperature upon receipt 14°C Sufficient sample for analysis Yes Turnaround time requested Standard

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS -

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SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499

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# **SAMPLE RECEIPT ADVICE**

CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

SUMMARY OF ANALYSIS

| No. | Sample ID    | Alkalinity in Soil | Conductivity and TDS by Calculation - Soil | Exchangeable Cations and Cation Exchange Capacity | Moisture Content | pH in soil (1:5) | Soil Texture (AS4419) | Soluble Anions (1:5) in Soil<br>by Ion Chromatography | Total Recoverable<br>Elements in Soil/Waste |
|-----|--------------|--------------------|--------------------------------------------|---------------------------------------------------|------------------|------------------|-----------------------|-------------------------------------------------------|---------------------------------------------|
| 007 | BH3M_2.8-2.9 | 4                  | 1                                          | 13                                                | -                | 1                | 1                     | 2                                                     | 5                                           |
| 011 | BH4M_4.9-5.0 | 4                  | 1                                          | 13                                                | -                | 1                | 1                     | 2                                                     | 5                                           |
| 015 | BH2_1.9-2.0  | 4                  | 1                                          | 13                                                | 1                | 1                | 1                     | 2                                                     | 5                                           |
| 016 | BH2_2.9-3.0  | 4                  | 1                                          | 13                                                | 1                | 1                | 1                     | 2                                                     | 5                                           |
| 017 | BH4M_4.4-4.5 | 4                  | 1                                          | 13                                                | 1                | 1                | 1                     | 2                                                     | 5                                           |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction .

22/07/2020 Page 2 of 2

| Sheet of                                                                 | 1                |                                                    |                |                              | San       | nple M | /latrix                          |                                                       |                |           |          |                   |          |                         | Ana                        | lysis         |            |        |        |        |        |         |                       | Comments                                             |
|--------------------------------------------------------------------------|------------------|----------------------------------------------------|----------------|------------------------------|-----------|--------|----------------------------------|-------------------------------------------------------|----------------|-----------|----------|-------------------|----------|-------------------------|----------------------------|---------------|------------|--------|--------|--------|--------|---------|-----------------------|------------------------------------------------------|
| Site:<br>Zmandala                                                        | Para<br>Castla   | ede,<br>2 Hir                                      | -              | Project No:<br>Ez4724<br>For | -         |        | t, etc.)                         | AHs tos                                               | МS             |           |          |                   |          | ion                     | hange)                     | conductivity) |            |        |        |        |        |         |                       | HM Arsenic Cadmium Chromium Copper                   |
| Laboratory:                                                              | ALEXA            | stralia<br>33 Maddox<br>NDRIA NSW<br>594 0400 F: 0 | 2015           | 99                           |           |        | OTHERS (i.e. Fibro, Paint, etc.) | HM <sup>A</sup> /TRH/BTEX/PAHs<br>OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | /TRH/BTEX |          |                   | S        | Asbestos Quantification | pH / CEC (cation exchange) | (electrical   | ring Suite |        |        |        |        |         | HM <sup>B</sup> / PAH | Lead Mercury Nickel Zinc HM   Arsenic                |
| Sample<br>ID                                                             | Laboratory<br>ID | Container<br>Type                                  | San<br>Date    | Time                         | WATER     | SOIL   | OTHERS                           | HM A /                                                | HM ≜ /T        | HM A /T   | BTEX     | VOCs              | Asbestos | Asbesto                 | pH / CE                    | pH / EC       | Dewatering | sPOCAS | PFAS   |        |        |         | TCLP H                | Cadmium<br>Chromium<br>Lead<br>Mercury               |
| BH3m-a                                                                   | 1                | ≥P,5,2VC                                           | 29/7/          | DO AN/PI                     | a X       | 0,     |                                  |                                                       | X              |           |          | X                 |          |                         |                            | X             | _          |        |        |        |        |         |                       | Nickel  Dewatering Suite                             |
| BH4m-a                                                                   | 2                | Ì                                                  | 1              |                              | X         |        |                                  |                                                       | X              |           |          | R                 |          |                         |                            | X             |            | •      |        |        |        |         |                       | pH & EC<br>TDS / Turbidity NTU                       |
| BHSM                                                                     | 3                | 4                                                  |                |                              | X         |        |                                  |                                                       | X              |           |          | X                 |          |                         |                            | X             |            |        |        |        |        |         |                       | Hardness<br>Total Cyanide<br>Metals (Al, As, Cd, Cr, |
| GWODI                                                                    | 4                | P,5,20c                                            |                |                              | X         |        |                                  |                                                       |                | X         |          |                   |          |                         |                            |               |            |        |        |        |        |         |                       | Cu, Pb, Hg, Ni, Zn)<br>TRH (F1, F2, F3, F4)<br>BTEX  |
| GWDRL                                                                    | 5                |                                                    |                |                              | X         |        |                                  |                                                       |                | X         |          |                   |          |                         |                            |               |            |        |        |        |        |         |                       | PAH<br>Total Phenol                                  |
| GWORBI                                                                   |                  | 7                                                  | 2              | 1                            | X         |        |                                  |                                                       |                |           |          |                   |          |                         |                            |               |            |        |        |        |        |         |                       | LABORATORY<br>TURNAROUND                             |
| GWTBI                                                                    | 6                | 20                                                 | ab pr          | pase                         | 1×        |        |                                  |                                                       |                |           | X        |                   |          |                         | _ <                        | GS F          | HS S       | vdn    | ey C   | oc     |        |         |                       | Standard                                             |
| GWTSI                                                                    | 7                |                                                    |                | _                            | $\propto$ |        |                                  |                                                       |                |           | X        |                   |          |                         |                            |               |            | 93     |        |        |        |         |                       | 24 Hours                                             |
|                                                                          |                  |                                                    |                |                              |           |        |                                  |                                                       |                |           |          |                   |          |                         | — II                       |               |            |        |        |        |        | 111     |                       | 48 Hours                                             |
|                                                                          |                  |                                                    |                |                              |           |        | -                                |                                                       |                |           |          | _                 | -        | -                       | _ '                        |               |            |        |        |        |        |         | $\dashv$              | 72 Hours                                             |
|                                                                          |                  |                                                    |                |                              |           |        |                                  |                                                       |                |           |          |                   |          |                         |                            | - 1           |            |        |        |        |        | _       | $\dashv$              | Other                                                |
| Container Type:<br>J= solvent washed, acid<br>S= solvent washed, acid    | d rinsed gla     |                                                    | s jar          |                              |           | Inves  | tigato                           | r: I atte                                             | st tha         | t these   | e sam    | ples w<br>samplii | vere co  | ollecte                 | ed in a                    | ccorda        | ince       | R      | Report | with E | Waste  | e Class | sification            | on Table                                             |
| P= natural HDPE plasti<br>VC= glass vial, Teflon S<br>ZLB = Zip-Lock Bag |                  |                                                    |                |                              |           | Sampl  |                                  | ame (EI)                                              | ) e            |           |          | Recei             | ved by   | (SGS):                  |                            |               |            | Sam    | pler's | Comn   | nents: |         |                       |                                                      |
| <b>126</b>                                                               |                  |                                                    |                | 55 Miller St<br>T NSW 200    |           |        | ature                            | ivi                                                   | ī              |           |          | Signa             | ature (  | 3,6                     | Bu                         | ب             |            |        |        |        |        |         |                       |                                                      |
| eiaus                                                                    | tralia           | 2                                                  | Ph: 95         | 16 0722<br>tralia.com.       |           | Date   | 3                                | ANT                                                   | 22             | )         |          | Date              |          | 571                     | 20                         | 01            | 2.1        | 5      |        |        |        |         |                       |                                                      |
| Contamination   Remedi                                                   | ation   Geotechi | nical                                              | COC March 2018 |                              |           |        |                                  | nail lab                                              |                | y resu    | ılts to: | lab@              | geiau    | ustra                   | lia.co                     | m.aı          | ı          |        |        |        |        |         |                       |                                                      |





### SAMPLE RECEIPT ADVICE

CLIENT DETAILS

LABORATORY DETAILS

Li Wei Contact

**EI AUSTRALIA** Client Address

**SUITE 6.01** 

55 MILLER STREET

PYRMONT NSW 2009

61 2 95160722

(Not specified) Facsimile

li.wei@eiaustralia.com.au Email

E24724.E02 2 Mandala Parade, Castle Hill Project

E24724.E02 Order Number 7

Samples

Telephone

**Huong Crawford** Manager

SGS Alexandria Environmental Laboratory

Address Unit 16, 33 Maddox St

Alexandria NSW 2015

+61 2 8594 0400 Telephone

+61 2 8594 0499 Facsimile

au.environmental.sydney@sgs.com Fmail

Samples Received Thu 30/7/2020 Thu 6/8/2020

Report Due SE209379 SGS Reference

SUBMISSION DETAILS

This is to confirm that 7 samples were received on Thursday 30/7/2020. Results are expected to be ready by COB Thursday 6/8/2020. Please quote SGS reference SE209379 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Complete documentation received Yes Yes Sample container provider SGS Ice Bricks Sample cooling method Samples received in correct containers Yes Sample counts by matrix 7 Water 30/7/2020 Date documentation received Type of documentation received COC Samples received in good order Yes Samples received without headspace Yes Sample temperature upon receipt 5.4°C Sufficient sample for analysis Yes Turnaround time requested Standard

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS -

This document is issued by the Company under its General Conditions of Service accessible at <a href="www.sgs.com/en/Terms-and-Conditions.aspx">www.sgs.com/en/Terms-and-Conditions.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499

www.sgs.com.au





# **SAMPLE RECEIPT ADVICE**

\_ CLIENT DETAILS \_

Client El AUSTRALIA

Project E24724.E02 2 Mandala Parade, Castle Hill

- SUMMARY OF ANALYSIS

| No. | Sample ID | Conductivity and TDS by Calculation - Water | Mercury (dissolved) in<br>Water | PAH (Polynuclear Aromatic<br>Hydrocarbons) in Water | pH in water | Trace Metals (Dissolved)<br>in Water by ICPMS | TRH (Total Recoverable<br>Hydrocarbons) in Water | VOCs in Water | Volatile Petroleum<br>Hydrocarbons in Water |
|-----|-----------|---------------------------------------------|---------------------------------|-----------------------------------------------------|-------------|-----------------------------------------------|--------------------------------------------------|---------------|---------------------------------------------|
| 001 | ВН3М-а    | 1                                           | 1                               | 22                                                  | 1           | 7                                             | 9                                                | 78            | 7                                           |
| 002 | BH4M-a    | 1                                           | 1                               | 22                                                  | 1           | 7                                             | 9                                                | 78            | 7                                           |
| 003 | вн5м      | 1                                           | 1                               | 22                                                  | 1           | 7                                             | 9                                                | 78            | 7                                           |
| 004 | GWQD 1    | -                                           | 1                               | -                                                   | -           | 7                                             | 9                                                | 11            | 7                                           |
| 005 | GWQR 1    | -                                           | 1                               | -                                                   | -           | 7                                             | 9                                                | 11            | 7                                           |
| 006 | GWTB 1    | -                                           | -                               | -                                                   | -           | -                                             | -                                                | 11            | -                                           |
| 007 | GWTS 1    | -                                           | -                               | -                                                   | -           | -                                             | -                                                | 11            | -                                           |

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details .

30/07/2020 Page 2 of 2

|                                                     |                                 |               |                                                  |             |                                    |                  |              |                                  |                                            |                |                           |         |              |             |                         |                            |                                   |                  | •                           |                     |                      |                                              |        |             |                                                                    |
|-----------------------------------------------------|---------------------------------|---------------|--------------------------------------------------|-------------|------------------------------------|------------------|--------------|----------------------------------|--------------------------------------------|----------------|---------------------------|---------|--------------|-------------|-------------------------|----------------------------|-----------------------------------|------------------|-----------------------------|---------------------|----------------------|----------------------------------------------|--------|-------------|--------------------------------------------------------------------|
| Sheet                                               | _ of                            | _             |                                                  | _           |                                    |                  | nple N       | /latrix                          |                                            | _              |                           |         |              |             |                         | Ana                        | lysis                             |                  |                             |                     |                      |                                              |        |             | Comments                                                           |
|                                                     | mand<br>Cas                     |               | a Para                                           |             | Project No FZ47Z4 Fo2              |                  |              | int, etc.)                       | PAHs<br>estos                              | AHs            |                           |         |              |             | ation                   | (change)                   | pH / EC (electrical conductivity) |                  | •                           |                     |                      |                                              |        |             | HM A Arsenic Cadmium Chromium Copper Lead                          |
| Laboratory:                                         | 12 A                            | Ashle<br>ATSV | ab Services<br>ey Street,<br>WOOD NS\<br>10 6200 |             |                                    |                  |              | OTHERS (i.e. Fibro, Paint, etc.) | HM A /TRH/BTEX/PAHS<br>OCP/OP/PCB/Asbestos | /TRH/BTEX/PAHs | HM <sup>A</sup> /TRH/BTEX | : '     | ŧ <u>;</u>   | so          | Asbestos Quantification | pH / CEC (cation exchange) | ) (electrical o                   | Dewatering Suite | Ş                           |                     |                      |                                              |        | HM B / PAH  | Mercury     Nickel     Zinc     HM    Arsenic     Cadmium          |
| Sample<br>ID                                        | Labora<br>ID                    |               | Container<br>Type                                | Date        |                                    | WATER            | SOIL         | OTHERS                           | HM A /                                     | HM A /         | HM A /                    | втех    | VOCs         | Asbestos    | Asbest                  | pH / CE                    | pH / EC                           | Dewate           | sPOCAS                      | PFAS                |                      |                                              |        | TCLP HM B / | Chromium Lead Mercury Nickel                                       |
| GWOTI                                               | (i                              | )             | pszk                                             | 29/7        | 1/22 Am/                           | <del>y</del> ruX |              |                                  |                                            |                | X                         |         | í            | <del></del> |                         |                            |                                   |                  |                             | <del></del>         |                      | -                                            |        |             | Dewatering Suite pH & EC TDS / Turbidity NTU                       |
|                                                     |                                 |               | <del></del>                                      |             |                                    |                  |              |                                  |                                            |                |                           |         | •            |             |                         |                            |                                   |                  |                             | _                   |                      |                                              |        |             | Hardness Total Cyanide Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn) |
|                                                     |                                 | +             |                                                  |             |                                    | <u> </u>         |              |                                  |                                            | <del></del>    | ·                         |         |              |             |                         |                            |                                   |                  |                             | ``.                 |                      | <u>                                     </u> |        | -           | TRH (F1, F2, F3, F4)<br>BTEX<br>PAH<br>Total Phenol                |
| 111111111111111111111111111111111111111             |                                 |               |                                                  |             |                                    | · -              |              | _                                |                                            |                |                           |         |              |             |                         |                            |                                   | envii            | OLAB                        | En                  | virolab<br>12 A      | Services<br>shley S<br>SW 2061               |        |             | LABORATORY<br>TURNAROUND                                           |
|                                                     | -                               |               |                                                  |             |                                    | 1                |              |                                  |                                            |                |                           | ţ       | -            |             | •                       | 1                          |                                   | Job              | No:                         | Ph                  | 1: (02) 9            | 910 6200                                     |        |             | Standard                                                           |
| 1.48E-16.                                           | -                               |               |                                                  |             |                                    | <u> </u>         |              |                                  |                                            |                |                           |         |              |             |                         |                            |                                   |                  | Receiv                      | ے <u>ر</u><br>ed: ج | $ u \cup \iota$      | 38<br>07                                     | 702    | <del></del> | 24 Hours                                                           |
|                                                     |                                 | -             |                                                  |             |                                    | -                |              |                                  | <b>-</b>                                   |                |                           |         |              |             |                         |                            |                                   | Time<br>Rece     | Receiv                      | ed:                 | ] <del>[57]</del>    | <u> </u>                                     |        | -           | 48 Hours                                                           |
|                                                     | _                               |               |                                                  |             |                                    |                  |              |                                  | ļ                                          |                |                           |         |              |             |                         |                            |                                   | Temp<br>Cooli    | ved By<br>: Cool<br>ng: Ice | Ambiei<br>cepac     | nt<br><del>kij</del> | 13-                                          | ∑.c    |             | 72 Hours                                                           |
|                                                     |                                 |               |                                                  |             |                                    | 1                |              |                                  |                                            |                |                           | ,       |              |             |                         |                            |                                   | Secu             | ng: Ice<br>rity: (nt        | actions             | ken/No               | ne                                           |        |             | Other                                                              |
| Container Type:                                     | _                               |               |                                                  |             |                                    |                  |              |                                  |                                            |                |                           | ,'      |              | _           |                         |                            | ,                                 |                  |                             |                     |                      |                                              |        |             | <u> </u>                                                           |
| J= solvent washed S= solvent washed P= natural HDPE | d, acid rinsed<br>d, acid rinse | d glas        | on sealed, glas<br>s bottle                      | s jar       | ,                                  |                  |              |                                  |                                            | stand          |                           |         | sampl        | ing pro     | ocedu                   | res.                       | ccord                             | ance             | F                           | Report              | with E               | I Wast                                       | e Clas | sificati    | on Table                                                           |
| VC= glass vial, Te<br>ZLB = Zip-Lock Ba             |                                 |               |                                                  |             |                                    |                  | Samp<br>Prin | nt                               | ame (El)                                   | •              |                           | ,       | Rece<br>Prir | ived by     | 1.                      | ,                          |                                   |                  | Sam                         | pler's              | Comr                 | nents:                                       |        |             |                                                                    |
|                                                     | <u> </u>                        |               |                                                  |             |                                    |                  | Sign         | <u>ک</u> نځ<br>nature            | We                                         | i              |                           |         | Sign         | ature       | <u> </u>                | 401                        | e<br>Z                            | 1                |                             |                     | ٠                    |                                              |        |             |                                                                    |
|                                                     |                                 |               |                                                  |             | , 55 Miller S<br>NT NSW 20         |                  |              | $\mathcal{C}$                    | we                                         | 7              |                           | :       |              |             |                         | Let                        | 1                                 |                  | þ                           |                     |                      |                                              |        |             |                                                                    |
| l laiai                                             | ictr=                           | di:           | <u> </u>                                         | Ph:         | 9516 0722                          |                  | Date         | <u> </u>                         | D ( =                                      |                | ) ·                       |         | Date         | 30/         | 07/7                    | 2029                       |                                   |                  |                             |                     |                      |                                              |        |             |                                                                    |
| Contamination 1                                     | Remediation   G                 | eotechnic     | A<br>cal                                         | _           | ustralia.com<br>018 FORM v.4 - SGS | ı.au             |              |                                  | ΓΑΝΤ<br>nail lab                           |                | rv resi                   | ults to |              |             |                         |                            |                                   | 13               |                             |                     |                      |                                              |        |             |                                                                    |
|                                                     |                                 |               |                                                  | 555 maiol 2 |                                    |                  |              | 1                                |                                            |                | ,                         |         | (            | <u>۳۰۰۰</u> |                         |                            | - · · · · · · · · · ·             |                  |                             |                     |                      |                                              |        |             |                                                                    |



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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         | El Australia |
| Attention      | Lab Email    |

| Sample Login Details                 |                         |
|--------------------------------------|-------------------------|
| Your reference                       | E24729.E02, Castle Hill |
| Envirolab Reference                  | 248038                  |
| Date Sample Received                 | 30/07/2020              |
| Date Instructions Received           | 30/07/2020              |
| Date Results Expected to be Reported | 06/08/2020              |

| Sample Condition                                       |          |
|--------------------------------------------------------|----------|
| Samples received in appropriate condition for analysis | Yes      |
| No. of Samples Provided                                | 1 Water  |
| Turnaround Time Requested                              | Standard |
| Temperature on Receipt (°C)                            | 13.2     |
| Cooling Method                                         | Ice Pack |
| Sampling Date Provided                                 | YES      |

| Comments |  |
|----------|--|
| Nil      |  |

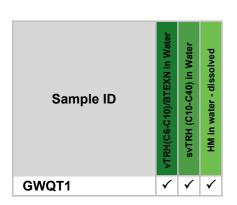
# Please direct any queries to:

| 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
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The '\sqrt{'} 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.





## **ANALYTICAL REPORT**



**Huong Crawford** 

SE208655 R0

Unit 16. 33 Maddox St

Alexandria NSW 2015

SGS Alexandria Environmental



CLIENT DETAILS

LABORATORY DETAILS

Manager

Address

Laboratory

SGS Reference

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

55 MILLER STREET

PYRMONT NSW 2009

61 2 95160722 Telephone +61 2 8594 0400 (Not specified) +61 2 8594 0499 Facsimile

Facsimile li.wei@eiaustralia.com.au au.environmental.sydney@sgs.com Email Email

E24724.E02 2 Mandala Parade, Castle Hill Project

E24724.E02 Order Number Date Received 13/7/2020 32 20/7/2020 Samples Date Reported

COMMENTS

Telephone

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

SIGNATORIES

Akheeqar BENIAMEEN

Chemist

Bennet LO

Senior Organic Chemist/Metals Chemist

**Dong LIANG** 

Metals/Inorganics Team Leader

Kamrul AHSAN

Senior Chemist

Ly Kim HA

Organic Section Head

Yusuf KUTHPUDIN

Asbestos Analyst



## VOC's in Soil [AN433] Tested: 15/7/2020

|               |       |     | TP7_0.1-0.2              | TP7_1.3-1.4              | TP8_0.1-0.2              | TP8_0.9-1.0              | TP9_0.1-0.2              |
|---------------|-------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|               |       |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|               |       |     |                          |                          |                          |                          |                          |
| PARAMETER     | UOM   | LOR | 8/7/2020<br>SE208655.001 | 8/7/2020<br>SE208655.002 | 8/7/2020<br>SE208655.003 | 8/7/2020<br>SE208655.004 | 8/7/2020<br>SE208655.005 |
| Benzene       | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Toluene       | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Ethylbenzene  | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| m/p-xylene    | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| o-xylene      | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Total Xylenes | mg/kg | 0.3 | <0.3                     | <0.3                     | <0.3                     | <0.3                     | <0.3                     |
| Total BTEX    | mg/kg | 0.6 | <0.6                     | <0.6                     | <0.6                     | <0.6                     | <0.6                     |
| Naphthalene   | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |

|               |       |     | TP9_1.2-1.3  | TP10 0.1-0.2  | TP11_0.1-0.2  | TP11_0.8-0.9  | TP12_0.1-0.2  |
|---------------|-------|-----|--------------|---------------|---------------|---------------|---------------|
|               |       |     | 11 0_1.2 1.0 | 11 10_0.1 0.2 | 11 11_0.1 0.2 | 11 11_0.0 0.0 | 11 12_0.1 0.2 |
|               |       |     | SOIL         | SOIL          | SOIL          | SOIL          | SOIL          |
|               |       |     |              |               |               |               |               |
|               |       |     |              |               |               |               |               |
| PARAMETER     | UOM   | LOR | SE208655.006 | SE208655.007  | SE208655.008  | SE208655.009  | SE208655.010  |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1          | <0.1          | <0.1          | <0.1          |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1          | <0.1          | <0.1          | <0.1          |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1          | <0.1          | <0.1          | <0.1          |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2          | <0.2          | <0.2          | <0.2          |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1          | <0.1          | <0.1          | <0.1          |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3          | <0.3          | <0.3          | <0.3          |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6          | <0.6          | <0.6          | <0.6          |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1          | <0.1          | <0.1          | <0.1          |

|               |       |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|---------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|               |       |     |              |              | 00"          | 00"          | 00"          |
|               |       |     | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    |
|               |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER     | UOM   | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         | <0.6         | <0.6         | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |

|               |       |     | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|---------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|               |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|               |       |     |              |              |              |              |              |
|               |       |     |              |              |              |              |              |
|               |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER     | UOM   | LOR | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         | <0.6         | <0.6         | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |

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## VOC's in Soil [AN433] Tested: 15/7/2020 (continued)

|               |       |     | TP17_0.1-0.2             | TP18_0.1-0.2             | TP18_1.8-1.9             | TP19_0.1-0.2             | TP19_1.4-1.5             |
|---------------|-------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|               |       |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|               |       |     |                          |                          |                          |                          |                          |
| PARAMETER     | UOM   | LOR | 8/7/2020<br>SE208655.021 | 8/7/2020<br>SE208655.022 | 8/7/2020<br>SE208655.023 | 8/7/2020<br>SE208655.024 | 8/7/2020<br>SE208655.025 |
| Benzene       | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
|               | mg/kg |     |                          |                          |                          |                          |                          |
| Toluene       | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Ethylbenzene  | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| m/p-xylene    | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| o-xylene      | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Total Xylenes | mg/kg | 0.3 | <0.3                     | <0.3                     | <0.3                     | <0.3                     | <0.3                     |
| Total BTEX    | mg/kg | 0.6 | <0.6                     | <0.6                     | <0.6                     | <0.6                     | <0.6                     |
| Naphthalene   | mg/kg | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |

|               |       |     | QD1          | QD2          | QTB1         | QTS1         | BH1_0.1-0.2  |
|---------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|               |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|               |       |     |              |              |              |              |              |
|               |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER     | UOM   | LOR | SE208655.026 | SE208655.027 | SE208655.029 | SE208655.030 | SE208655.031 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | [87%]        | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | [89%]        | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | [90%]        | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | [90%]        | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | [91%]        | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | -            | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         | <0.6         | -            | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | -            | <0.1         |

|               |       |     | BH1_0.7-0.8<br>SOIL<br>-<br>8/7/2020 |
|---------------|-------|-----|--------------------------------------|
| PARAMETER     | UOM   | LOR | SE208655.032                         |
| Benzene       | mg/kg | 0.1 | <0.1                                 |
| Toluene       | mg/kg | 0.1 | <0.1                                 |
| Ethylbenzene  | mg/kg | 0.1 | <0.1                                 |
| m/p-xylene    | mg/kg | 0.2 | <0.2                                 |
| o-xylene      | mg/kg | 0.1 | <0.1                                 |
| Total Xylenes | mg/kg | 0.3 | <0.3                                 |
| Total BTEX    | mg/kg | 0.6 | <0.6                                 |
| Naphthalene   | mg/kg | 0.1 | <0.1                                 |

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## Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 15/7/2020

|                            |       |     | TP7_0.1-0.2   | TP7_1.3-1.4   | TP8_0.1-0.2   | TP8_0.9-1.0   | TP9_0.1-0.2   |
|----------------------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|                            |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|                            |       |     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER                  | UOM   | LOR | SE208655.001  | SE208655.002  | SE208655.003  | SE208655.004  | SE208655.005  |
| TRH C6-C9                  | mg/kg | 20  | <20           | <20           | <20           | <20           | <20           |
| Benzene (F0)               | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| TRH C6-C10                 | mg/kg | 25  | <25           | <25           | <25           | <25           | <25           |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25           | <25           | <25           | <25           | <25           |

|                            |       |     | TP9_1.2-1.3  | TP10_0.1-0.2 | TP11_0.1-0.2 | TP11_0.8-0.9 | TP12_0.1-0.2 |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                            |       |     |              |              |              |              |              |
|                            |       |     |              |              |              |              |              |
| PARAMETER                  | UOM   | LOR | SE208655.006 | SE208655.007 | SE208655.008 | SE208655.009 | SE208655.010 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |

|                            |       |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                            |       |     |              |              |              |              |              |
|                            |       |     |              |              |              |              | 8/7/2020     |
| PARAMETER                  | UOM   | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |

|                            |       |     | TP14_0.1-0.2  | TP14_1.5-1.6 | TP15_0.1-0.2  | TP15_1.7-1.8  | TP16_0.1-0.2  |
|----------------------------|-------|-----|---------------|--------------|---------------|---------------|---------------|
|                            |       |     | SOIL          | SOIL         | SOIL          | SOIL          | SOIL          |
|                            |       |     | -<br>8/7/2020 | 8/7/2020     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER                  | UOM   | LOR | SE208655.016  | SE208655.017 | SE208655.018  | SE208655.019  | SE208655.020  |
| TRH C6-C9                  | mg/kg | 20  | <20           | <20          | <20           | <20           | <20           |
| Benzene (F0)               | mg/kg | 0.1 | <0.1          | <0.1         | <0.1          | <0.1          | <0.1          |
| TRH C6-C10                 | mg/kg | 25  | <25           | <25          | <25           | <25           | <25           |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25           | <25          | <25           | <25           | <25           |

|                            |       |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                            |       |     |              |              |              |              |              |
|                            |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER                  | UOM   | LOR | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |

|                            |       |     | QD1          | QD2          | BH1_0.1-0.2  | BH1_0.7-0.8  |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL<br>-    | SOIL<br>-    | SOIL         | SOIL         |
|                            |       |     |              |              |              |              |
| PARAMETER                  | UOM   | LOR | SE208655.026 | SE208655.027 | SE208655.031 | SE208655.032 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          |

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## TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/7/2020

|                                 |       |     | TDT 0 4 0 0  | TD= 4044     | TD0 0 4 0 0  | TD0 0040     | TD0 0 4 0 0  |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |       |     | TP7_0.1-0.2  | TP7_1.3-1.4  | TP8_0.1-0.2  | TP8_0.9-1.0  | TP9_0.1-0.2  |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     |              |              |              |              |              |
| PARAMETER                       | UOM   | LOR | SE208655.001 | SE208655.002 | SE208655.003 | SE208655.004 | SE208655.005 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210         | <210         |

|                                 |       |     | TP9_1.2-1.3              | TP10_0.1-0.2             | TP11_0.1-0.2             | TP11_0.8-0.9             | TP12_0.1-0.2             |
|---------------------------------|-------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                 |       |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|                                 |       |     |                          |                          |                          |                          |                          |
| PARAMETER                       | UOM   | LOR | 8/7/2020<br>SE208655.006 | 8/7/2020<br>SE208655.007 | 8/7/2020<br>SE208655.008 | 8/7/2020<br>SE208655.009 | 8/7/2020<br>SE208655.010 |
| TRH C10-C14                     | mg/kg | 20  | <20                      | <20                      | <20                      | <20                      | <20                      |
| TRH C15-C28                     | mg/kg | 45  | <45                      | <45                      | <45                      | <45                      | <45                      |
| TRH C29-C36                     | mg/kg | 45  | <45                      | <45                      | <45                      | <45                      | 70                       |
| TRH C37-C40                     | mg/kg | 100 | <100                     | <100                     | <100                     | <100                     | <100                     |
| TRH >C10-C16                    | mg/kg | 25  | <25                      | <25                      | <25                      | <25                      | <25                      |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25                      | <25                      | <25                      | <25                      | <25                      |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90                      | <90                      | <90                      | <90                      | <90                      |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120                     | <120                     | <120                     | <120                     | <120                     |
| TRH C10-C36 Total               | mg/kg | 110 | <110                     | <110                     | <110                     | <110                     | <110                     |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210                     | <210                     | <210                     | <210                     | <210                     |

|                                 |       |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER                       | UOM   | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | 48           | <45          | <45          | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210         | <210         |

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## TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 15/7/2020 (continued)

|                                 |       |     | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |       |     |              |              |              |              |              |
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     |              |              |              |              |              |
| PARAMETER                       | UOM   | LOR | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | 99           | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | 330          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | 230          | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | 280          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | 370          | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | 430          | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | 650          | <210         |

|                                 |       |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER                       | UOM   | LOR | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210         | <210         |

|                                 |       |     | QD1          | QD2          | BH1_0.1-0.2  | BH1_0.7-0.8  |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              | •            |
|                                 |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER                       | UOM   | LOR | SE208655.026 | SE208655.027 | SE208655.031 | SE208655.032 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210         |

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## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/7/2020

|                                                                                                                                                                        |             |     | TP7_0.1-0.2              | TP7_1.3-1.4              | TP8_0.1-0.2              | TP8_0.9-1.0              | TP9_0.1-0.2              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                                                                                                                                        |             |     | 11 7_0.1 0.2             | 11 7_1.0 1.4             | 11 0_0.1 0.2             | 11 0_0.0 1.0             | 11 0_0.1 0.2             |
|                                                                                                                                                                        |             |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|                                                                                                                                                                        |             |     | -                        | -                        | -                        | -                        | -                        |
| PARAMETER                                                                                                                                                              | UOM         | LOR | 8/7/2020<br>SE208655.001 | 8/7/2020<br>SE208655.002 | 8/7/2020<br>SE208655.003 | 8/7/2020<br>SE208655.004 | 8/7/2020<br>SE208655.005 |
| Naphthalene                                                                                                                                                            | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 2-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 1-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Acenaphthylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| · · ·                                                                                                                                                                  |             |     |                          |                          |                          |                          |                          |
| Acenaphthene                                                                                                                                                           | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Fluorene                                                                                                                                                               | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Phenanthrene                                                                                                                                                           | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Anthracene                                                                                                                                                             | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Fluoranthene                                                                                                                                                           | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.4                      | <0.1                     | <0.1                     |
| Pyrene                                                                                                                                                                 | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.5                      | <0.1                     | <0.1                     |
| Benzo(a)anthracene                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.2                      | <0.1                     | <0.1                     |
| Chrysene                                                                                                                                                               | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.2                      | <0.1                     | <0.1                     |
| Benzo(b&j)fluoranthene                                                                                                                                                 | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.2                      | <0.1                     | <0.1                     |
| Benzo(k)fluoranthene                                                                                                                                                   | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.1                      | <0.1                     | <0.1                     |
| Benzo(a)pyrene                                                                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.2                      | <0.1                     | <0.1                     |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                 | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Dibenzo(ah)anthracene                                                                                                                                                  | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(ghi)perylene                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     | 0.2                      | <0.2                     | <0.2                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3                     | <0.3                     | 0.3                      | <0.3                     | <0.3                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>0.3</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     | 0.3                      | <0.2                     | <0.2                     |
| Total PAH (18)                                                                                                                                                         | mg/kg       | 0.8 | <0.8                     | <0.8                     | 1.7                      | <0.8                     | <0.8                     |
| Total PAH (NEPM/WHO 16)                                                                                                                                                | mg/kg       | 0.8 | <0.8                     | <0.8                     | 1.7                      | <0.8                     | <0.8                     |

|                                                                                                                                                                            |             |     | TP9_1.2-1.3              | TP10_0.1-0.2             | TP11_0.1-0.2             | TP11_0.8-0.9             | TP12_0.1-0.2             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                                                                                                                                            |             |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|                                                                                                                                                                            |             |     |                          |                          |                          |                          |                          |
| PARAMETER                                                                                                                                                                  | UOM         | LOR | 8/7/2020<br>SE208655.006 | 8/7/2020<br>SE208655.007 | 8/7/2020<br>SE208655.008 | 8/7/2020<br>SE208655.009 | 8/7/2020<br>SE208655.010 |
| Naphthalene                                                                                                                                                                | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 2-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 1-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Acenaphthylene                                                                                                                                                             | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Acenaphthene                                                                                                                                                               | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Fluorene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Phenanthrene                                                                                                                                                               | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Anthracene                                                                                                                                                                 | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
|                                                                                                                                                                            |             | 0.1 | <0.1                     | <0.1                     |                          | <0.1                     |                          |
| Fluoranthene                                                                                                                                                               | mg/kg       |     |                          |                          | 0.2                      |                          | 0.2                      |
| Pyrene                                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | 0.1                      | 0.2                      | <0.1                     | 0.2                      |
| Benzo(a)anthracene                                                                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Chrysene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.1                      | <0.1                     | <0.1                     |
| Benzo(b&j)fluoranthene                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(k)fluoranthene                                                                                                                                                       | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(a)pyrene                                                                                                                                                             | mg/kg       | 0.1 | <0.1                     | <0.1                     | 0.1                      | <0.1                     | <0.1                     |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Dibenzo(ah)anthracene                                                                                                                                                      | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(ghi)perylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3                     | <0.3                     | <0.3                     | <0.3                     | <0.3                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| Total PAH (18)                                                                                                                                                             | mg/kg       | 0.8 | <0.8                     | <0.8                     | <0.8                     | <0.8                     | <0.8                     |
| Total PAH (NEPM/WHO 16)                                                                                                                                                    | mg/kg       | 0.8 | <0.8                     | <0.8                     | <0.8                     | <0.8                     | <0.8                     |

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## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/7/2020 (continued)

|                                                                                                                                                                        |             |     | TP12_0.8-0.9             | TP12_1.7-1.8             | TP13_0.1-0.2             | TP13_1.2-1.3             | TP13_2.0-2.1             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                                                                                                                                        |             |     | 11 12_0.0 0.0            |                          | 11 10_0.1 0.2            | 11 10_112 1.0            | 11 10_2.0 2.1            |
|                                                                                                                                                                        |             |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|                                                                                                                                                                        |             |     | -                        | -                        | -                        | -                        | -                        |
| PARAMETER                                                                                                                                                              | UOM         | LOR | 8/7/2020<br>SE208655.011 | 8/7/2020<br>SE208655.012 | 8/7/2020<br>SE208655.013 | 8/7/2020<br>SE208655.014 | 8/7/2020<br>SE208655.015 |
| Naphthalene                                                                                                                                                            | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 2-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| 1-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Acenaphthylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
|                                                                                                                                                                        |             |     |                          |                          |                          |                          |                          |
| Acenaphthene                                                                                                                                                           | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Fluorene                                                                                                                                                               | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Phenanthrene                                                                                                                                                           | mg/kg       | 0.1 | 0.1                      | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Anthracene                                                                                                                                                             | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Fluoranthene                                                                                                                                                           | mg/kg       | 0.1 | 0.2                      | <0.1                     | <0.1                     | 0.1                      | <0.1                     |
| Pyrene                                                                                                                                                                 | mg/kg       | 0.1 | 0.3                      | 0.1                      | <0.1                     | 0.1                      | <0.1                     |
| Benzo(a)anthracene                                                                                                                                                     | mg/kg       | 0.1 | 0.1                      | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Chrysene                                                                                                                                                               | mg/kg       | 0.1 | 0.1                      | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(b&j)fluoranthene                                                                                                                                                 | mg/kg       | 0.1 | 0.1                      | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(k)fluoranthene                                                                                                                                                   | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(a)pyrene                                                                                                                                                         | mg/kg       | 0.1 | 0.1                      | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                 | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Dibenzo(ah)anthracene                                                                                                                                                  | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Benzo(ghi)perylene                                                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     | <0.1                     | <0.1                     | <0.1                     |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>     | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<> | TEQ (mg/kg) | 0.3 | <0.3                     | <0.3                     | <0.3                     | <0.3                     | <0.3                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | 0.2                      | <0.2                     | <0.2                     | <0.2                     | <0.2                     |
| Total PAH (18)                                                                                                                                                         | mg/kg       | 0.8 | 1.2                      | <0.8                     | <0.8                     | <0.8                     | <0.8                     |
| Total PAH (NEPM/WHO 16)                                                                                                                                                | mg/kg       | 0.8 | 1.2                      | <0.8                     | <0.8                     | <0.8                     | <0.8                     |

|                                                                                                                                                                        |             |     |              | 1            |              |              |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|--------------|--------------|--------------|--------------|
|                                                                                                                                                                        |             |     | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|                                                                                                                                                                        |             |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                                                                                                                                                        |             |     |              |              |              |              |              |
|                                                                                                                                                                        |             |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER                                                                                                                                                              | UOM         | LOR | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| Naphthalene                                                                                                                                                            | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| 2-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| 1-methylnaphthalene                                                                                                                                                    | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Acenaphthylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Acenaphthene                                                                                                                                                           | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Fluorene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Phenanthrene                                                                                                                                                           | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | 0.2          | <0.1         |
| Anthracene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Fluoranthene                                                                                                                                                           | mg/kg       | 0.1 | 0.2          | <0.1         | 0.1          | 0.3          | <0.1         |
| Pyrene                                                                                                                                                                 | mg/kg       | 0.1 | 0.3          | <0.1         | 0.1          | 0.3          | <0.1         |
| Benzo(a)anthracene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Chrysene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | 0.2          | <0.1         |
| Benzo(b&j)fluoranthene                                                                                                                                                 | mg/kg       | 0.1 | 0.1          | <0.1         | <0.1         | 0.1          | <0.1         |
| Benzo(k)fluoranthene                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(a)pyrene                                                                                                                                                         | mg/kg       | 0.1 | 0.1          | <0.1         | <0.1         | 0.1          | <0.1         |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                 | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | 0.1          | <0.1         |
| Dibenzo(ah)anthracene                                                                                                                                                  | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(ghi)perylene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | 0.3          | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>     | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<> | TEQ (mg/kg) | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>0.2</td><td>&lt;0.2</td></lor=lor>     | TEQ (mg/kg) | 0.2 | 0.2          | <0.2         | <0.2         | 0.2          | <0.2         |
| Total PAH (18)                                                                                                                                                         | mg/kg       | 0.8 | 0.8          | <0.8         | <0.8         | 1.7          | <0.8         |
| Total PAH (NEPM/WHO 16)                                                                                                                                                | mg/kg       | 0.8 | 0.8          | <0.8         | <0.8         | 1.7          | <0.8         |

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## PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 15/7/2020 (continued)

|                                                                                                                                                                            |             |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9  | TP19_0.1-0.2 | TP19_1.4-1.5 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|--------------|---------------|--------------|--------------|
|                                                                                                                                                                            |             |     |              |              |               |              |              |
|                                                                                                                                                                            |             |     | SOIL<br>-    | SOIL<br>-    | SOIL<br>-     | SOIL<br>-    | SOIL         |
|                                                                                                                                                                            |             |     | 8/7/2020     | 8/7/2020     | -<br>8/7/2020 | 8/7/2020     | 8/7/2020     |
| PARAMETER                                                                                                                                                                  | UOM         | LOR | SE208655.021 | SE208655.022 | SE208655.023  | SE208655.024 | SE208655.025 |
| Naphthalene                                                                                                                                                                | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| 2-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| 1-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Acenaphthylene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Acenaphthene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Fluorene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Phenanthrene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Anthracene                                                                                                                                                                 | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Fluoranthene                                                                                                                                                               | mg/kg       | 0.1 | 0.1          | <0.1         | <0.1          | <0.1         | <0.1         |
| Pyrene                                                                                                                                                                     | mg/kg       | 0.1 | 0.2          | <0.1         | <0.1          | <0.1         | <0.1         |
| Benzo(a)anthracene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Chrysene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Benzo(b&j)fluoranthene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Benzo(k)fluoranthene                                                                                                                                                       | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Benzo(a)pyrene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Dibenzo(ah)anthracene                                                                                                                                                      | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Benzo(ghi)perylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1         | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2          | <0.2         | <0.2         |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3         | <0.3         | <0.3          | <0.3         | <0.3         |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2          | <0.2         | <0.2         |
| Total PAH (18)                                                                                                                                                             | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8          | <0.8         | <0.8         |
| Total PAH (NEPM/WHO 16)                                                                                                                                                    | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8          | <0.8         | <0.8         |

|                                                                                                                            |             |     | BH1_0.1-0.2              | BH1_0.7-0.8              |
|----------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------------------|--------------------------|
|                                                                                                                            |             |     | SOIL                     | SOIL                     |
|                                                                                                                            |             |     |                          |                          |
| PARAMETER                                                                                                                  | UOM         | LOR | 8/7/2020<br>SE208655.031 | 8/7/2020<br>SE208655.032 |
| Naphthalene                                                                                                                | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| 2-methylnaphthalene                                                                                                        | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| 1-methylnaphthalene                                                                                                        | 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 | <0.1                     | <0.1                     |
| Pyrene                                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Benzo(a)anthracene                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Chrysene                                                                                                                   | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Benzo(b&j)fluoranthene                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Benzo(k)fluoranthene                                                                                                       | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Benzo(a)pyrene                                                                                                             | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Indeno(1,2,3-cd)pyrene                                                                                                     | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Dibenzo(ah)anthracene                                                                                                      | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Benzo(ghi)perylene                                                                                                         | mg/kg       | 0.1 | <0.1                     | <0.1                     |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3                     | <0.3                     |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2                     | <0.2                     |
| Total PAH (18)                                                                                                             | mg/kg       | 0.8 | <0.8                     | <0.8                     |
| Total PAH (NEPM/WHO 16)                                                                                                    | mg/kg       | 0.8 | <0.8                     | <0.8                     |

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## OC Pesticides in Soil [AN420] Tested: 15/7/2020

|                         |       |            |                      | 1                    |                      |                      |                      |
|-------------------------|-------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                         |       |            | TP7_0.1-0.2          | TP7_1.3-1.4          | TP8_0.1-0.2          | TP8_0.9-1.0          | TP9_0.1-0.2          |
|                         |       |            | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 |
|                         |       |            |                      |                      |                      |                      |                      |
|                         |       |            | 8/7/2020             | 8/7/2020             | 8/7/2020             | 8/7/2020             | 8/7/2020             |
| PARAMETER               | UOM   | LOR<br>0.1 | SE208655.001<br><0.1 | SE208655.002<br><0.1 | SE208655.003<br><0.1 | SE208655.004<br><0.1 | SE208655.005<br><0.1 |
| Hexachlorobenzene (HCB) | mg/kg | 0.1        |                      |                      |                      |                      | <0.1                 |
| Alpha BHC               | mg/kg |            | <0.1                 | <0.1                 | <0.1                 | <0.1                 |                      |
| Lindane                 | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Heptachlor              | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Aldrin                  | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Beta BHC                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Delta BHC               | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Heptachlor epoxide      | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| o,p'-DDE                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Alpha Endosulfan        | mg/kg | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| Gamma Chlordane         | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Alpha Chlordane         | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| trans-Nonachlor         | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| p,p'-DDE                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Dieldrin                | mg/kg | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| Endrin                  | mg/kg | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| o,p'-DDD                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| o,p'-DDT                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Beta Endosulfan         | mg/kg | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| p,p'-DDD                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| p,p'-DDT                | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endosulfan sulphate     | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endrin Aldehyde         | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Methoxychlor            | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endrin Ketone           | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Isodrin                 | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Mirex                   | mg/kg | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Total CLP OC Pesticides | mg/kg | 1          | <1                   | <1                   | <1                   | <1                   | <1                   |

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OC Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

|                                   |              |            | TP9_1.2-1.3          | TP10_0.1-0.2         | TP11_0.1-0.2         | TP11_0.8-0.9         | TP12_0.1-0.2         |
|-----------------------------------|--------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                   |              |            | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 |
|                                   |              |            |                      |                      |                      |                      |                      |
|                                   |              |            | 8/7/2020             | 8/7/2020             | 8/7/2020             | 8/7/2020             | 8/7/2020             |
| PARAMETER Hexachlorobenzene (HCB) | UOM<br>mg/kg | LOR<br>0.1 | SE208655.006<br><0.1 | SE208655.007<br><0.1 | SE208655.008<br><0.1 | SE208655.009<br><0.1 | SE208655.010<br><0.1 |
| Alpha BHC                         | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
|                                   |              |            |                      |                      |                      |                      |                      |
| Lindane                           | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Heptachlor                        | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Aldrin                            | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Beta BHC                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Delta BHC                         | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Heptachlor epoxide                | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| o,p'-DDE                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Alpha Endosulfan                  | mg/kg        | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| Gamma Chlordane                   | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Alpha Chlordane                   | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| trans-Nonachlor                   | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| p,p'-DDE                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Dieldrin                          | mg/kg        | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| Endrin                            | mg/kg        | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| o,p'-DDD                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| o,p'-DDT                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Beta Endosulfan                   | mg/kg        | 0.2        | <0.2                 | <0.2                 | <0.2                 | <0.2                 | <0.2                 |
| p,p'-DDD                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| p,p'-DDT                          | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endosulfan sulphate               | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endrin Aldehyde                   | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Methoxychlor                      | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Endrin Ketone                     | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Isodrin                           | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Mirex                             | mg/kg        | 0.1        | <0.1                 | <0.1                 | <0.1                 | <0.1                 | <0.1                 |
| Total CLP OC Pesticides           | mg/kg        | 1          | <1                   | <1                   | <1                   | <1                   | <1                   |

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OC Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

|                         |       |     | TP12_0.8-0.9  | TP12_1.7-1.8  | TP13_0.1-0.2  | TP13_1.2-1.3 | TP13_2.0-2.1 |
|-------------------------|-------|-----|---------------|---------------|---------------|--------------|--------------|
|                         |       |     |               |               |               |              |              |
|                         |       |     | SOIL          | SOIL          | SOIL          | SOIL         | SOIL         |
|                         |       |     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | 8/7/2020     | 8/7/2020     |
| PARAMETER               | UOM   | LOR | SE208655.011  | SE208655.012  | SE208655.013  | SE208655.014 | SE208655.015 |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Alpha BHC               | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Lindane                 | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Heptachlor              | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Aldrin                  | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Beta BHC                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Delta BHC               | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| o,p'-DDE                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2         | <0.2         |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| p,p'-DDE                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Dieldrin                | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2         | <0.2         |
| Endrin                  | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2         | <0.2         |
| o,p'-DDD                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| o,p'-DDT                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2         | <0.2         |
| p,p'-DDD                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| p,p'-DDT                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Endrin Aldehyde         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Methoxychlor            | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Endrin Ketone           | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Isodrin                 | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Mirex                   | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1         | <0.1         |
| Total CLP OC Pesticides | mg/kg | 1   | <1            | <1            | <1            | <1           | <1           |

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OC Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

|                         | _     |     | TP14_0.1-0.2  | TP14_1.5-1.6  | TP15_0.1-0.2  | TP15_1.7-1.8  | TP16_0.1-0.2  |
|-------------------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|                         |       |     |               |               |               |               |               |
|                         |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|                         |       |     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER               | UOM   | LOR | SE208655.016  | SE208655.017  | SE208655.018  | SE208655.019  | SE208655.020  |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Alpha BHC               | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Lindane                 | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Heptachlor              | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Aldrin                  | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beta BHC                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Delta BHC               | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| o,p'-DDE                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| p,p'-DDE                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Dieldrin                | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Endrin                  | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| o,p'-DDD                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| o,p'-DDT                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| p,p'-DDD                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| p,p'-DDT                | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Endrin Aldehyde         | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Methoxychlor            | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Endrin Ketone           | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Isodrin                 | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Mirex                   | mg/kg | 0.1 | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Total CLP OC Pesticides | mg/kg | 1   | <1            | <1            | <1            | <1            | <1            |

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SE208655 R0



OC Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

| SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| PARAMETER         UOM         LOR         \$E7/2020         \$87/2020         \$E7/2020         \$E7 | 19_1.4-1.5 |
| PARAMETER         UOM         LOR         \$E7/2020         \$87/2020         \$E7/2020         \$E7 | SOIL       |
| PARAMETER         UOM         LOR         SE208655.021         SE208655.022         SE208655.023         SE208655.024         SE           Hexachlorobenzene (HCB)         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
| Hexachlorobenzene (HCB)         mg/kg         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         <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         <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         <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         <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         <                                                                                                                                                                                                  |            |
| Alpha BHC         mg/kg         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         <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         <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         <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         <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                                                                                                                                                                                                             | 208655.025 |
| Lindane mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <0.1       |
| Heptachlor mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <0.1       |
| Aldrin         mg/kg         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         <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         <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         <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         <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       |
| Beta BHC         mg/kg         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         < 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         < 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         < 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         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1         < 0.1 <t< td=""><td>&lt;0.1</td></t<>                                                                                                                                             | <0.1       |
| Delta BHC         mg/kg         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         <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         <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         <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         <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       |
| Heptachlor epoxide mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.1       |
| o.p'-DDE         mg/kg         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         <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         <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         <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         <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       |
| Alpha Endosulfan       mg/kg       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       <0.2       <0.2       <0.2       <0.2       <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       <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       <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       <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       <0.1       <0.1       <0.1       <0.1       <0.                                                                                                                                                                                                                                                                                          | <0.1       |
| Gamma Chlordane         mg/kg         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         <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         <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         <0.2         <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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2                                                                                                                                                                                                       | <0.1       |
| Alpha Chlordane  mg/kg 0.1 40.1 40.1 40.1 40.1 40.1 40.1 40.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <0.2       |
| trans-Nonachlor         mg/kg         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         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <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         <0.2         <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         <0.2         <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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2                                                                                                                                                                                                       | <0.1       |
| p,p'-DDE         mg/kg         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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <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         <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         <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       |
| Dieldrin         mg/kg         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         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <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         <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         <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         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1                                                                                                                                                                                                              | <0.1       |
| Endrin         mg/kg         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         <0.2         <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         <0.2         <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         <0.2         <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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <                                                                                                                                                                                                      | <0.1       |
| O,p'-DDD         mg/kg         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         <0.1         <0.1         <0.1         <0.1         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <0.2         <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         <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         <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                                                                                                                                                                                                              | <0.2       |
| o,p'-DDT         mg/kg         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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <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         <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         <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         <0.1         <0.1                                                                                                                                                                                                              | <0.2       |
| Beta Endosulfan         mg/kg         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         <0.2         <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         <0.2         <0.2         <0.2         <0.2         <0.2         <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         <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         <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                                                                                                                                                                                                       | <0.1       |
| p,p'-DDD         mg/kg         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         <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         <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         <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         <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       |
| p.p'-DDT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <0.2       |
| Endosulfan sulphate mg/kg 0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <0.1       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.1       |
| Endrin Aldehyde mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <0.1       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.1       |
| Methoxychlor         mg/kg         0.1         <0.1         <0.1         <0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <0.1       |
| Endrin Ketone         mg/kg         0.1         <0.1         <0.1         <0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <0.1       |
| Isodrin mg/kg 0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.1       |
| Mirex mg/kg 0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <0.1       |
| Total CLP OC Pesticides         mg/kg         1         <1         <1         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <1         |

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# SGS

# **ANALYTICAL RESULTS**

## OC Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

|                            |                |     | BU4 04 02                | BH1 0.7-0.8              |
|----------------------------|----------------|-----|--------------------------|--------------------------|
|                            |                |     | BH1_0.1-0.2              | ВН1_0.7-0.8              |
|                            |                |     | SOIL                     | SOIL                     |
|                            |                |     |                          |                          |
| PARAMETER                  | UOM            | LOR | 8/7/2020<br>SE208655.031 | 8/7/2020<br>SE208655.032 |
| Hexachlorobenzene (HCB)    | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Alpha BHC                  | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Lindane                    | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Heptachlor                 | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Aldrin                     | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Beta BHC                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Delta BHC                  | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Heptachlor epoxide         | mg/kg          | 0.1 | <0.1                     | <0.1                     |
|                            |                | 0.1 | <0.1                     | <0.1                     |
| o,p'-DDE  Alpha Endosulfan | mg/kg<br>mg/kg | 0.1 | <0.1                     | <0.1                     |
| Gamma Chlordane            |                | 0.2 | <0.1                     | <0.1                     |
|                            | mg/kg          |     | -                        | -                        |
| Alpha Chlordane            | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| trans-Nonachlor            | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| p,p'-DDE                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Dieldrin                   | mg/kg          | 0.2 | <0.2                     | <0.2                     |
| Endrin                     | mg/kg          | 0.2 | <0.2                     | <0.2                     |
| o,p'-DDD                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| o,p'-DDT                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Beta Endosulfan            | mg/kg          | 0.2 | <0.2                     | <0.2                     |
| p,p'-DDD                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| p,p'-DDT                   | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Endosulfan sulphate        | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Endrin Aldehyde            | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Methoxychlor               | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Endrin Ketone              | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Isodrin                    | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Mirex                      | mg/kg          | 0.1 | <0.1                     | <0.1                     |
| Total CLP OC Pesticides    | mg/kg          | 1   | <1                       | <1                       |

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## OP Pesticides in Soil [AN420] Tested: 15/7/2020

|                                   |       |     | TP7_0.1-0.2           | TP7_1.3-1.4           | TP8_0.1-0.2           | TP8_0.9-1.0           | TP9_0.1-0.2           |
|-----------------------------------|-------|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                   |       |     | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 |
| PARAMETER                         | UOM   | LOR | SE208655.001          | SE208655.002          | SE208655.003          | SE208655.004          | SE208655.005          |
| Dichlorvos                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Dimethoate                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Fenitrothion                      | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Malathion                         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Methidathion                      | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Ethion                            | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7                  | <1.7                  | <1.7                  | <1.7                  | <1.7                  |

|                                   |       |     | TP9_1.2-1.3           | TP10_0.1-0.2          | TP11_0.1-0.2          | TP11_0.8-0.9          | TP12_0.1-0.2          |
|-----------------------------------|-------|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                   |       |     | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 |
| PARAMETER                         | UOM   | LOR | SE208655.006          | SE208655.007          | SE208655.008          | SE208655.009          | SE208655.010          |
| Dichlorvos                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Dimethoate                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Fenitrothion                      | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Malathion                         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Methidathion                      | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Ethion                            | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7                  | <1.7                  | <1.7                  | <1.7                  | <1.7                  |

|                                   |       |     | TP12_0.8-0.9  | TP12_1.7-1.8  | TP13_0.1-0.2  | TP13_1.2-1.3  | TP13_2.0-2.1  |
|-----------------------------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|                                   |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|                                   |       |     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER                         | UOM   | LOR | SE208655.011  | SE208655.012  | SE208655.013  | SE208655.014  | SE208655.015  |
| Dichlorvos                        | mg/kg | 0.5 | <0.5          | <0.5          | <0.5          | <0.5          | <0.5          |
| Dimethoate                        | mg/kg | 0.5 | <0.5          | <0.5          | <0.5          | <0.5          | <0.5          |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5          | <0.5          | <0.5          | <0.5          | <0.5          |
| Fenitrothion                      | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Malathion                         | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Methidathion                      | mg/kg | 0.5 | <0.5          | <0.5          | <0.5          | <0.5          | <0.5          |
| Ethion                            | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2          | <0.2          | <0.2          | <0.2          | <0.2          |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7          | <1.7          | <1.7          | <1.7          | <1.7          |

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## OP Pesticides in Soil [AN420] Tested: 15/7/2020 (continued)

|                                   |       |     | TP14_0.1-0.2                          | TP14_1.5-1.6                          | TP15_0.1-0.2                          | TP15_1.7-1.8                          | TP16_0.1-0.2                          |
|-----------------------------------|-------|-----|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| PARAMETER                         | UOM   | LOR | SOIL<br>-<br>8/7/2020<br>SE208655.016 | SOIL<br>-<br>8/7/2020<br>SE208655.017 | SOIL<br>-<br>8/7/2020<br>SE208655.018 | SOIL<br>-<br>8/7/2020<br>SE208655.019 | SOIL<br>-<br>8/7/2020<br>SE208655.020 |
| Dichlorvos                        | mg/kg | 0.5 | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  |
| Dimethoate                        | mg/kg | 0.5 | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  |
| Fenitrothion                      | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Malathion                         | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Methidathion                      | mg/kg | 0.5 | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  | <0.5                                  |
| Ethion                            | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  | <0.2                                  |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7                                  | <1.7                                  | <1.7                                  | <1.7                                  | <1.7                                  |

|                                   |       |     | TP17_0.1-0.2          | TP18_0.1-0.2          | TP18_1.8-1.9          | TP19_0.1-0.2          | TP19_1.4-1.5          |
|-----------------------------------|-------|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                   |       |     | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 | SOIL<br>-<br>8/7/2020 |
| PARAMETER                         | UOM   | LOR | SE208655.021          | SE208655.022          | SE208655.023          | SE208655.024          | SE208655.025          |
| Dichlorvos                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Dimethoate                        | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Fenitrothion                      | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Malathion                         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Methidathion                      | mg/kg | 0.5 | <0.5                  | <0.5                  | <0.5                  | <0.5                  | <0.5                  |
| Ethion                            | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                  | <0.2                  | <0.2                  | <0.2                  | <0.2                  |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7                  | <1.7                  | <1.7                  | <1.7                  | <1.7                  |

|                                   |       |     | BH1_0.1-0.2   | BH1_0.7-0.8   |
|-----------------------------------|-------|-----|---------------|---------------|
|                                   |       |     | SOIL          | SOIL          |
|                                   |       |     | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER                         | UOM   | LOR | SE208655.031  | SE208655.032  |
| Dichlorvos                        | mg/kg | 0.5 | <0.5          | <0.5          |
| Dimethoate                        | mg/kg | 0.5 | <0.5          | <0.5          |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5          | <0.5          |
| Fenitrothion                      | mg/kg | 0.2 | <0.2          | <0.2          |
| Malathion                         | mg/kg | 0.2 | <0.2          | <0.2          |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2          | <0.2          |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2          | <0.2          |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2          | <0.2          |
| Methidathion                      | mg/kg | 0.5 | <0.5          | <0.5          |
| Ethion                            | mg/kg | 0.2 | <0.2          | <0.2          |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2          | <0.2          |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7          | <1.7          |

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## PCBs in Soil [AN420] Tested: 15/7/2020

|                        |       |     | TP7_0.1-0.2  | TP7_1.3-1.4  | TP8_0.1-0.2  | TP8_0.9-1.0  | TP9_0.1-0.2  |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              | -            |
|                        |       |     |              |              |              |              |              |
| PARAMETER              | UOM   | LOR | SE208655.001 | SE208655.002 | SE208655.003 | SE208655.004 | SE208655.005 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | <1           | <1           | <1           |

|                        |       |     | TP9_1.2-1.3  | TP10_0.1-0.2 | TP11_0.1-0.2 | TP11_0.8-0.9 | TP12_0.1-0.2 |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER              | UOM   | LOR | SE208655.006 | SE208655.007 | SE208655.008 | SE208655.009 | SE208655.010 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | <1           | <1           | <1           |

|                        |       |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     |              |              |              |              |              |
| PARAMETER              | UOM   | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | <1           | <1           | <1           |

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## PCBs in Soil [AN420] Tested: 15/7/2020 (continued)

|                        |       |     | TD44 04 02   | TD44 4 5 4 6 | TD45 04 02   | TD45 4 7 4 9 | TD4C 04 02   |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|                        |       |     |              |              |              |              |              |
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER              | UOM   | LOR | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | <1           | <1           | <1           |

|                        |       |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER              | UOM   | LOR | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | <1           | <1           | <1           |

|                        |       |     | BH1_0.1-0.2  | BH1_0.7-0.8  |
|------------------------|-------|-----|--------------|--------------|
|                        |       |     | SOIL         | SOIL         |
|                        |       |     |              |              |
| PARAMETER              | UOM   | LOR | SE208655.031 | SE208655.032 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           |

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## Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/7/2020

|              |       |     | TP7_0.1-0.2              | TP7_1.3-1.4              | TP8_0.1-0.2              | TP8_0.9-1.0              | TP9_0.1-0.2              |
|--------------|-------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|              |       |     | SOIL                     | SOIL                     | SOIL                     | SOIL                     | SOIL                     |
|              |       |     | -                        | -                        | -                        | -                        | -                        |
| PARAMETER    | UOM   | LOR | 8/7/2020<br>SE208655.001 | 8/7/2020<br>SE208655.002 | 8/7/2020<br>SE208655.003 | 8/7/2020<br>SE208655.004 | 8/7/2020<br>SE208655.005 |
| Arsenic, As  | mg/kg | 1   | 4                        | 14                       | 5                        | 5                        | 4                        |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3                     | <0.3                     | <0.3                     | <0.3                     | <0.3                     |
| Chromium, Cr | mg/kg | 0.5 | 11                       | 20                       | 24                       | 4.6                      | 8.4                      |
| Copper, Cu   | mg/kg | 0.5 | 24                       | 9.6                      | 26                       | 6.9                      | 16                       |
| Lead, Pb     | mg/kg | 1   | 12                       | 17                       | 12                       | 18                       | 11                       |
| Nickel, Ni   | mg/kg | 0.5 | 13                       | <0.5                     | 18                       | <0.5                     | 5.7                      |
| Zinc, Zn     | mg/kg | 2   | 34                       | 7.1                      | 27                       | 2.2                      | 22                       |

|              |       |     | TP9_1.2-1.3                   | TP10_0.1-0.2                  | TP11_0.1-0.2                  | TP11_0.8-0.9             | TP12_0.1-0.2                         |
|--------------|-------|-----|-------------------------------|-------------------------------|-------------------------------|--------------------------|--------------------------------------|
|              |       |     | SOIL                          | SOIL                          | SOIL                          | SOIL                     | SOIL                                 |
| PARAMETER    | UOM   | LOR | -<br>8/7/2020<br>SE208655.006 | -<br>8/7/2020<br>SE208655.007 | -<br>8/7/2020<br>SE208655.008 | 8/7/2020<br>SE208655.009 | -<br>8/7/2020<br><b>SE208655.010</b> |
| Arsenic, As  | mg/kg | 1   | <1                            | 4                             | 4                             | 2                        | 4                                    |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3                          | <0.3                          | <0.3                          | <0.3                     | <0.3                                 |
| Chromium, Cr | mg/kg | 0.5 | 2.3                           | 14                            | 42                            | 29                       | 11                                   |
| Copper, Cu   | mg/kg | 0.5 | 2.1                           | 16                            | 12                            | 130                      | 22                                   |
| Lead, Pb     | mg/kg | 1   | 15                            | 12                            | 12                            | 4                        | 15                                   |
| Nickel, Ni   | mg/kg | 0.5 | <0.5                          | 10                            | 10                            | 34                       | 20                                   |
| Zinc, Zn     | mg/kg | 2   | <2.0                          | 31                            | 39                            | 39                       | 42                                   |

|              |       |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|--------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|              |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|              |       |     |              |              |              |              |              |
|              |       |     |              |              |              |              | 8/7/2020     |
| PARAMETER    | UOM   | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| Arsenic, As  | mg/kg | 1   | 3            | 4            | 3            | 4            | 5            |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Chromium, Cr | mg/kg | 0.5 | 12           | 12           | 8.1          | 10           | 14           |
| Copper, Cu   | mg/kg | 0.5 | 19           | 13           | 9.4          | 14           | 12           |
| Lead, Pb     | mg/kg | 1   | 13           | 13           | 10           | 13           | 17           |
| Nickel, Ni   | mg/kg | 0.5 | 18           | 10           | 8.6          | 8.3          | 8.2          |
| Zinc, Zn     | mg/kg | 2   | 38           | 25           | 20           | 28           | 28           |

|              |       |     | TP14_0.1-0.2  | TP14_1.5-1.6  | TP15_0.1-0.2  | TP15_1.7-1.8  | TP16_0.1-0.2  |
|--------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|              |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|              |       |     |               |               |               |               |               |
|              |       |     | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 | -<br>8/7/2020 |
| PARAMETER    | UOM   | LOR | SE208655.016  | SE208655.017  | SE208655.018  | SE208655.019  | SE208655.020  |
| Arsenic, As  | mg/kg | 1   | 4             | 4             | 3             | 4             | 3             |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3          | <0.3          | <0.3          | <0.3          | <0.3          |
| Chromium, Cr | mg/kg | 0.5 | 13            | 6.1           | 11            | 16            | 15            |
| Copper, Cu   | mg/kg | 0.5 | 15            | <0.5          | 15            | 22            | 24            |
| Lead, Pb     | mg/kg | 1   | 14            | 5             | 16            | 15            | 9             |
| Nickel, Ni   | mg/kg | 0.5 | 13            | <0.5          | 9.3           | 6.8           | 18            |
| Zinc, Zn     | mg/kg | 2   | 35            | <2.0          | 87            | 36            | 50            |

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## Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 15/7/2020

| ( ( N        |       |     |              |              |              | 1            |              |
|--------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|              |       |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|              |       |     |              |              |              |              |              |
|              |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|              |       |     |              |              |              |              |              |
|              |       |     |              |              |              |              |              |
| PARAMETER    | UOM   | LOR | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| Arsenic, As  | mg/kg | 1   | 4            | 3            | 6            | 4            | 5            |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Chromium, Cr | mg/kg | 0.5 | 10           | 9.1          | 11           | 32           | 16           |
| Copper, Cu   | mg/kg | 0.5 | 12           | 12           | 16           | 23           | 1.9          |
| Lead, Pb     | mg/kg | 1   | 12           | 11           | 14           | 11           | 13           |
| Nickel, Ni   | mg/kg | 0.5 | 9.8          | 9.0          | 9.2          | 15           | 0.7          |
| Zinc, Zn     | mg/kg | 2   | 32           | 30           | 44           | 43           | 2.9          |

|              |       |     | QD1          | QD2          | BH1_0.1-0.2  | BH1_0.7-0.8  |
|--------------|-------|-----|--------------|--------------|--------------|--------------|
|              |       |     | SOIL         | SOIL         | SOIL         | SOIL         |
|              |       |     |              |              |              |              |
|              |       |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER    | UOM   | LOR | SE208655.026 | SE208655.027 | SE208655.031 | SE208655.032 |
| Arsenic, As  | mg/kg | 1   | 4            | 4            | 5            | 6            |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         |
| Chromium, Cr | mg/kg | 0.5 | 19           | 9.9          | 8.8          | 7.9          |
| Copper, Cu   | mg/kg | 0.5 | 21           | 12           | 9.8          | 8.9          |
| Lead, Pb     | mg/kg | 1   | 12           | 13           | 12           | 14           |
| Nickel, Ni   | mg/kg | 0.5 | 15           | 12           | 5.4          | 0.8          |
| Zinc, Zn     | mg/kg | 2   | 27           | 33           | 16           | 7.8          |

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## Mercury in Soil [AN312] Tested: 15/7/2020

|           |       |      | TP7_0.1-0.2  | TP7_1.3-1.4  | TP8_0.1-0.2  | TP8_0.9-1.0  | TP9_0.1-0.2  |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              | -            |
|           |       |      |              |              |              |              | 8/7/2020     |
| PARAMETER | UOM   | LOR  | SE208655.001 | SE208655.002 | SE208655.003 | SE208655.004 | SE208655.005 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | TP9_1.2-1.3  | TP10_0.1-0.2 | TP11_0.1-0.2 | TP11_0.8-0.9 | TP12_0.1-0.2 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              |              |
|           |       |      |              |              |              |              | 8/7/2020     |
| PARAMETER | UOM   | LOR  | SE208655.006 | SE208655.007 | SE208655.008 | SE208655.009 | SE208655.010 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              | -            |
|           |       |      | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER | UOM   | LOR  | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              | -            |
|           |       |      |              |              |              |              | 8/7/2020     |
| PARAMETER | UOM   | LOR  | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              |              |
|           |       |      |              |              |              |              |              |
| PARAMETER | UOM   | LOR  | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | QD1          | QD2          | BH1_0.1-0.2  | BH1_0.7-0.8  |
|-----------|-------|------|--------------|--------------|--------------|--------------|
|           |       |      |              |              |              |              |
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              |
|           |       |      | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER | UOM   | LOR  | SE208655.026 | SE208655.027 | SE208655.031 | SE208655.032 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        |

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## Moisture Content [AN002] Tested: 15/7/2020

|            |      |     | TP7_0.1-0.2  | TP7_1.3-1.4  | TP8_0.1-0.2  | TP8_0.9-1.0  | TP9_0.1-0.2  |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              | -            |
|            |      |     |              |              |              |              | 8/7/2020     |
| PARAMETER  | UOM  | LOR | SE208655.001 | SE208655.002 | SE208655.003 | SE208655.004 | SE208655.005 |
| % Moisture | %w/w | 1   | 12.1         | 18.3         | 13.5         | 11.0         | 8.1          |

|            |      |     | TP9_1.2-1.3  | TP10_0.1-0.2 | TP11_0.1-0.2 | TP11_0.8-0.9 | TP12_0.1-0.2 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              |              |
|            |      |     |              |              |              |              |              |
| PARAMETER  | UOM  | LOR | SE208655.006 | SE208655.007 | SE208655.008 | SE208655.009 | SE208655.010 |
| % Moisture | %w/w | 1   | 13.4         | 9.8          | 11.0         | 7.3          | 10.2         |

|            |      |     | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              | -            |
|            |      |     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     | 8/7/2020     |
| PARAMETER  | UOM  | LOR | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| % Moisture | %w/w | 1   | 10.2         | 10.8         | 10.3         | 11.6         | 14.7         |

|            |      |     | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              | -            |
|            |      |     |              |              |              |              | 8/7/2020     |
| PARAMETER  | UOM  | LOR | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| % Moisture | %w/w | 1   | 10.7         | 11.1         | 9.0          | 11.8         | 9.2          |

|            |      |     | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              | -            |
|            |      |     |              |              |              |              | 8/7/2020     |
| PARAMETER  | UOM  | LOR | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| % Moisture | %w/w | 1   | 9.7          | 10.5         | 15.0         | 9.9          | 18.4         |

| % Moisture | %w/w | 1   | 13.3         | 11.3         | <1.0         | 10.7         | 11.0         |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
| PARAMETER  | UOM  | LOR | SE208655.026 | SE208655.027 | SE208655.029 | SE208655.031 | SE208655.032 |
|            |      |     |              |              |              |              |              |
|            |      |     |              |              |              |              |              |
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     | QD1          | QD2          | QTB1         | BH1_0.1-0.2  | BH1_0.7-0.8  |
|            |      |     | 004          | 000          | 0704         | DU4 04 00    | DU4 0 = 0 0  |

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## Fibre Identification in soil [AN602] Tested: 17/7/2020

|                   |         |      | TP7_0.1-0.2  | TP7_1.3-1.4  | TP8_0.1-0.2  | TP8_0.9-1.0  | TP9_0.1-0.2  |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              |              |
|                   |         |      |              |              |              |              |              |
| PARAMETER         | UOM     | LOR  | SE208655.001 | SE208655.002 | SE208655.003 | SE208655.004 | SE208655.005 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | TP9_1.2-1.3  | TP10_0.1-0.2 | TP11_0.1-0.2 | TP11_0.8-0.9 | TP12_0.1-0.2 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              | -            |
|                   |         |      |              |              |              |              | 8/7/2020     |
| PARAMETER         | UOM     | LOR  | SE208655.006 | SE208655.007 | SE208655.008 | SE208655.009 | SE208655.010 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | TP12_0.8-0.9 | TP12_1.7-1.8 | TP13_0.1-0.2 | TP13_1.2-1.3 | TP13_2.0-2.1 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              |              |
|                   |         |      |              |              |              |              |              |
| PARAMETER         | UOM     | LOR  | SE208655.011 | SE208655.012 | SE208655.013 | SE208655.014 | SE208655.015 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | TP14_0.1-0.2 | TP14_1.5-1.6 | TP15_0.1-0.2 | TP15_1.7-1.8 | TP16_0.1-0.2 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              | -            |
|                   |         |      |              |              |              |              | 8/7/2020     |
| PARAMETER         | UOM     | LOR  | SE208655.016 | SE208655.017 | SE208655.018 | SE208655.019 | SE208655.020 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | TP17_0.1-0.2 | TP18_0.1-0.2 | TP18_1.8-1.9 | TP19_0.1-0.2 | TP19_1.4-1.5 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              | -            |
|                   |         |      |              |              |              |              | 8/7/2020     |
| PARAMETER         | UOM     | LOR  | SE208655.021 | SE208655.022 | SE208655.023 | SE208655.024 | SE208655.025 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | BH1_0.1-0.2        | BH1_0.7-0.8                   |
|-------------------|---------|------|--------------------|-------------------------------|
|                   |         |      | SOIL               | SOIL                          |
| PARAMETER         | UOM     | LOR  | 8/7/2020           | -<br>8/7/2020<br>SE208655.032 |
| Asbestos Detected | No unit |      | SE208655.031<br>No | No                            |
|                   |         |      |                    |                               |
| Estimated Fibres* | %w/w    | 0.01 | <0.01              | <0.01                         |

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SE208655 R0

## VOCs in Water [AN433] Tested: 16/7/2020

|               |      |     | QR1<br>WATER             |
|---------------|------|-----|--------------------------|
|               |      |     |                          |
| PARAMETER     | UOM  | LOR | 8/7/2020<br>SE208655.028 |
| PARAMETER     | ООМ  |     |                          |
| Benzene       | μg/L | 0.5 | <0.5                     |
| Toluene       | μg/L | 0.5 | <0.5                     |
| Ethylbenzene  | μg/L | 0.5 | <0.5                     |
| m/p-xylene    | μg/L | 1   | <1                       |
| o-xylene      | μg/L | 0.5 | <0.5                     |
| Total Xylenes | μg/L | 1.5 | <1.5                     |
| Total BTEX    | μg/L | 3   | <3                       |
| Naphthalene   | μg/L | 0.5 | <0.5                     |

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SE208655 R0



## Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 16/7/2020

|                            |      |     | QR1                    |
|----------------------------|------|-----|------------------------|
|                            |      |     | WATER<br>-<br>8/7/2020 |
| PARAMETER                  | UOM  | LOR | SE208655.028           |
| TRH C6-C9                  | μg/L | 40  | <40                    |
| Benzene (F0)               | μg/L | 0.5 | <0.5                   |
| TRH C6-C10                 | μg/L | 50  | <50                    |
| TRH C6-C10 minus BTEX (F1) | μg/L | 50  | <50                    |

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## TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 15/7/2020

|                                 |      |     | QR1  WATER  - 8/7/2020 |
|---------------------------------|------|-----|------------------------|
| PARAMETER                       | UOM  | LOR | SE208655.028           |
| TRH C10-C14                     | μg/L | 50  | <50                    |
| TRH C15-C28                     | μg/L | 200 | <200                   |
| TRH C29-C36                     | μg/L | 200 | <200                   |
| TRH C37-C40                     | μg/L | 200 | <200                   |
| TRH >C10-C16                    | μg/L | 60  | <60                    |
| TRH >C10-C16 - Naphthalene (F2) | μg/L | 60  | <60                    |
| TRH >C16-C34 (F3)               | μg/L | 500 | <500                   |
| TRH >C34-C40 (F4)               | μg/L | 500 | <500                   |
| TRH C10-C40                     | μg/L | 320 | <320                   |

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## Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 15/7/2020

|              |      |     | QR1          |
|--------------|------|-----|--------------|
|              |      |     | WATER<br>-   |
|              |      |     |              |
| PARAMETER    | UOM  | LOR | SE208655.028 |
| Arsenic, As  | μg/L | 1   | <1           |
| Cadmium, Cd  | μg/L | 0.1 | <0.1         |
| Chromium, Cr | μg/L | 1   | <1           |
| Copper, Cu   | μg/L | 1   | <1           |
| Lead, Pb     | μg/L | 1   | <1           |
| Nickel, Ni   | μg/L | 1   | <1           |
| Zinc, Zn     | μg/L | 5   | <5           |

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SE208655 R0

#### Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 15/7/2020

|           |      |        | QR1          |
|-----------|------|--------|--------------|
|           |      |        | WATER        |
|           |      |        |              |
|           |      |        | 8/7/2020     |
| PARAMETER | UOM  | LOR    | SE208655.028 |
| Mercury   | mg/L | 0.0001 | <0.0001      |

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#### **METHOD SUMMARY**

SE208655 R0

METHOD -

SG

METHODOLOGY SUMMARY

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN020

Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

AN311(Perth)/AN312

Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.

**AN312** 

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, reduced by stannous chloride reagent in acidic solution to elemental mercury. vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards Reference APHA

**AN318** 

Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

**AN403** 

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.

AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .

**AN403** 

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B

AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

AN420

SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

**AN433** 

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

AN602

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

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#### **METHOD SUMMARY**

SE208655 R0

#### AN602

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

#### FOOTNOTES

\* NATA accreditation does not cover the performance of this service.

\*\* Indicative data, theoretical holding

time exceeded.

Not analysed.NVL Not validated.

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

UOM Unit of Measure.

LOR Limit of Reporting.

↑↓ Raised/lowered Limit of

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-qb/environment-health-and-safety">www.sgs.com.au/en-qb/environment-health-and-safety</a>.

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LABORATORY DETAILS

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27 Samples

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13 Jul 2020

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SGS Reference SE208655 R0

20 Jul 2020 Date Reported

Date Received

COMMENTS

Order Number

Telephone

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

SIGNATORIES

Akheeqar BENIAMEEN

Chemist

Bennet LO

Senior Organic Chemist/Metals Chemis

Kamrul AHSAN Senior Chemist

Australia

Australia

Ly Kim HA

Organic Section Head

Yusuf KUTHPUDIN Asbestos Analyst

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- RESULTS -- Method AN602

| Laboratory<br>Reference | Client<br>Reference | Matrix | Sample<br>Description              | Date Sampled | Fibre Identification                         | Est.%w/w |
|-------------------------|---------------------|--------|------------------------------------|--------------|----------------------------------------------|----------|
| SE208655.001            | TP7_0.1-0.2         | Soil   | 155g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.002            | TP7_1.3-1.4         | Soil   | 207g Clay,<br>Rocks                | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.003            | TP8_0.1-0.2         | Soil   | 112g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.004            | TP8_0.9-1.0         | Soil   | 175g Clay,<br>Rocks                | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.005            | TP9_0.1-0.2         | Soil   | 154g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.006            | TP9_1.2-1.3         | Soil   | 185g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.007            | TP10_0.1-0.2        | Soil   | 127g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.008            | TP11_0.1-0.2        | Soil   | 112g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.009            | TP11_0.8-0.9        | Soil   | 164g Sand,<br>Rocks                | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.010            | TP12_0.1-0.2        | Soil   | 124g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.011            | TP12_0.8-0.9        | Soil   | 160g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.012            | TP12_1.7-1.8        | Soil   | 131g Clay,<br>Sand, Soil,<br>Rocks | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.013            | TP13_0.1-0.2        | Soil   | 111g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.014            | TP13_1.2-1.3        | Soil   | 95g Clay, Sand,<br>Rocks           | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.015            | TP13_2.0-2.1        | Soil   | 105g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.016            | TP14_0.1-0.2        | Soil   | 95g Clay, Sand,<br>Rocks           | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.017            | TP14_1.5-1.6        | Soil   | 103g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.018            | TP15_0.1-0.2        | Soil   | 106g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.019            | TP15_1.7-1.8        | Soil   | 132g Sand,<br>Rocks, Bitumen       | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.020            | TP16_0.1-0.2        | Soil   | 99g Clay, Sand,<br>Rocks           | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.021            | TP17_0.1-0.2        | Soil   | 103g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.022            | TP18_0.1-0.2        | Soil   | 126g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.023            | TP18_1.8-1.9        | Soil   | 125g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.024            | TP19_0.1-0.2        | Soil   | 175g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01    |
| SE208655.025            | TP19_1.4-1.5        | Soil   | 187g Clay,<br>Rocks                | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.031            | BH1_0.1-0.2         | Soil   | 161g Clay,<br>Sand, Rocks          | 08 Jul 2020  | No Asbestos Found                            | <0.01    |
| SE208655.032            | BH1_0.7-0.8         | Soil   | 331g Clay,<br>Rocks                | 08 Jul 2020  | No Asbestos Found                            | <0.01    |

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SE208655 R0

|   | RESULTS —                    |        |       |
|---|------------------------------|--------|-------|
| ı | Fibre Identification in soil | Method | AN602 |

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SE208655 R0



#### **METHOD SUMMARY**

METHOD -

METHODOLOGY SUMMARY

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

AN602

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

#### FOOTNOTES -

Amosite - Brown Asbestos NA - Not Analysed
Chrysotile - White Asbestos LNR - Listed, Not Required

Crocidolite - Blue Asbestos \* - NATA accreditation does not cover the performance of this service .

Amphiboles - Amosite and/or Crocidolite \*\* - Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-gb/environment-health-and-safety">www.sgs.com.au/en-gb/environment-health-and-safety</a>.

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### **CERTIFICATE OF ANALYSIS 246861**

| Client Details |                                                  |
|----------------|--------------------------------------------------|
| Client         | El Australia                                     |
| Attention      | Lab Email                                        |
| Address        | Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009 |

| Sample Details                       |                          |
|--------------------------------------|--------------------------|
| Your Reference                       | E24724. E02, Castle Hill |
| Number of Samples                    | 2 Soil                   |
| Date samples received                | 13/07/2020               |
| Date completed instructions received | 13/07/2020               |

## **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           | 20/07/2020                                                        |  |
| Date of Issue                       | 17/07/2020                                                        |  |
| 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

Hannah Nguyen, Senior Chemist Josh Williams, Senior Chemist **Authorised By** 

Nancy Zhang, Laboratory Manager



| vTRH(C6-C10)/BTEXN in Soil                           |       |            |            |
|------------------------------------------------------|-------|------------|------------|
| Our Reference                                        |       | 246861-1   | 246861-2   |
| Your Reference                                       | UNITS | QT1        | QT2        |
| Date Sampled                                         |       | 8/07/2020  | 8/07/2020  |
| Type of sample                                       |       | Soil       | Soil       |
| Date extracted                                       | -     | 15/07/2020 | 15/07/2020 |
| Date analysed                                        | -     | 17/07/2020 | 17/07/2020 |
| TRH C <sub>6</sub> - C <sub>9</sub>                  | mg/kg | <25        | <25        |
| TRH C <sub>6</sub> - C <sub>10</sub>                 | mg/kg | <25        | <25        |
| vTPH C <sub>6</sub> - C <sub>10</sub> 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 | <3         | <3         |
| Surrogate aaa-Trifluorotoluene                       | %     | 125        | 121        |

| svTRH (C10-C40) in Soil                                      |       |            |            |
|--------------------------------------------------------------|-------|------------|------------|
| Our Reference                                                |       | 246861-1   | 246861-2   |
| Your Reference                                               | UNITS | QT1        | QT2        |
| Date Sampled                                                 |       | 8/07/2020  | 8/07/2020  |
| Type of sample                                               |       | Soil       | Soil       |
| Date extracted                                               | -     | 15/07/2020 | 15/07/2020 |
| Date analysed                                                | -     | 16/07/2020 | 16/07/2020 |
| TRH C <sub>10</sub> - C <sub>14</sub>                        | mg/kg | <50        | <50        |
| TRH C <sub>15</sub> - C <sub>28</sub>                        | mg/kg | <100       | <100       |
| TRH C <sub>29</sub> - C <sub>36</sub>                        | mg/kg | <100       | <100       |
| TRH >C <sub>10</sub> -C <sub>16</sub>                        | mg/kg | <50        | <50        |
| TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2) | mg/kg | <50        | <50        |
| TRH >C <sub>16</sub> -C <sub>34</sub>                        | mg/kg | <100       | <100       |
| TRH >C <sub>34</sub> -C <sub>40</sub>                        | mg/kg | <100       | <100       |
| Total +ve TRH (>C10-C40)                                     | mg/kg | <50        | <50        |
| Surrogate o-Terphenyl                                        | %     | 97         | 101        |

| Acid Extractable metals in soil |       |            |            |
|---------------------------------|-------|------------|------------|
| Our Reference                   |       | 246861-1   | 246861-2   |
| Your Reference                  | UNITS | QT1        | QT2        |
| Date Sampled                    |       | 8/07/2020  | 8/07/2020  |
| Type of sample                  |       | Soil       | Soil       |
| Date prepared                   | -     | 15/07/2020 | 15/07/2020 |
| Date analysed                   | -     | 15/07/2020 | 15/07/2020 |
| Arsenic                         | mg/kg | 4          | 8          |
| Cadmium                         | mg/kg | <0.4       | <0.4       |
| Chromium                        | mg/kg | 31         | 29         |
| Copper                          | mg/kg | 26         | 35         |
| Lead                            | mg/kg | 18         | 28         |
| Mercury                         | mg/kg | <0.1       | <0.1       |
| Nickel                          | mg/kg | 18         | 26         |
| Zinc                            | mg/kg | 33         | 72         |

| Moisture       |       |            |            |
|----------------|-------|------------|------------|
| Our Reference  |       | 246861-1   | 246861-2   |
| Your Reference | UNITS | QT1        | QT2        |
| Date Sampled   |       | 8/07/2020  | 8/07/2020  |
| Type of sample |       | Soil       | Soil       |
| Date prepared  | -     | 15/07/2020 | 15/07/2020 |
| Date analysed  | -     | 16/07/2020 | 16/07/2020 |
| Moisture       | %     | 11         | 50         |

| Method ID  | Methodology Summary                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inorg-008  | Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.                                                                                                                                                                                                                                                                                                                                                           |
| 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-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 CON                          | TROL: vTRH | (C6-C10) | /BTEXN in Soil |            |      | Du   | ıplicate |      | Spike Re   | covery % |
|--------------------------------------|------------|----------|----------------|------------|------|------|----------|------|------------|----------|
| Test Description                     | Units      | PQL      | Method         | Blank      | #    | Base | Dup.     | RPD  | LCS-8      | [NT]     |
| Date extracted                       | -          |          |                | 15/07/2020 | [NT] |      | [NT]     | [NT] | 15/07/2020 |          |
| Date analysed                        | -          |          |                | 17/07/2020 | [NT] |      | [NT]     | [NT] | 17/07/2020 |          |
| TRH C <sub>6</sub> - C <sub>9</sub>  | mg/kg      | 25       | Org-023        | <25        | [NT] |      | [NT]     | [NT] | 90         |          |
| TRH C <sub>6</sub> - C <sub>10</sub> | mg/kg      | 25       | Org-023        | <25        | [NT] |      | [NT]     | [NT] | 90         |          |
| Benzene                              | mg/kg      | 0.2      | Org-023        | <0.2       | [NT] |      | [NT]     | [NT] | 76         |          |
| Toluene                              | mg/kg      | 0.5      | Org-023        | <0.5       | [NT] |      | [NT]     | [NT] | 103        |          |
| Ethylbenzene                         | mg/kg      | 1        | Org-023        | <1         | [NT] |      | [NT]     | [NT] | 95         |          |
| m+p-xylene                           | mg/kg      | 2        | Org-023        | <2         | [NT] |      | [NT]     | [NT] | 87         |          |
| o-Xylene                             | mg/kg      | 1        | Org-023        | <1         | [NT] |      | [NT]     | [NT] | 83         |          |
| naphthalene                          | mg/kg      | 1        | Org-023        | <1         | [NT] |      | [NT]     | [NT] | [NT]       |          |
| Surrogate aaa-Trifluorotoluene       | %          |          | Org-023        | 123        | [NT] |      | [NT]     | [NT] | 119        |          |

| QUALITY CO                            | NTROL: svT | RH (C10 | -C40) in Soil |            |      | Du   | plicate |      | Spike Re   | Spike Recovery % |  |
|---------------------------------------|------------|---------|---------------|------------|------|------|---------|------|------------|------------------|--|
| Test Description                      | Units      | PQL     | Method        | Blank      | #    | Base | Dup.    | RPD  | LCS-8      | [NT]             |  |
| Date extracted                        | -          |         |               | 15/07/2020 | [NT] |      | [NT]    | [NT] | 15/07/2020 |                  |  |
| Date analysed                         | -          |         |               | 16/07/2020 | [NT] |      | [NT]    | [NT] | 16/07/2020 |                  |  |
| TRH C <sub>10</sub> - C <sub>14</sub> | mg/kg      | 50      | Org-020       | <50        | [NT] |      | [NT]    | [NT] | 130        |                  |  |
| TRH C <sub>15</sub> - C <sub>28</sub> | mg/kg      | 100     | Org-020       | <100       | [NT] |      | [NT]    | [NT] | 108        |                  |  |
| TRH C <sub>29</sub> - C <sub>36</sub> | mg/kg      | 100     | Org-020       | <100       | [NT] |      | [NT]    | [NT] | 128        |                  |  |
| TRH >C <sub>10</sub> -C <sub>16</sub> | mg/kg      | 50      | Org-020       | <50        | [NT] |      | [NT]    | [NT] | 130        |                  |  |
| TRH >C <sub>16</sub> -C <sub>34</sub> | mg/kg      | 100     | Org-020       | <100       | [NT] |      | [NT]    | [NT] | 108        |                  |  |
| TRH >C <sub>34</sub> -C <sub>40</sub> | mg/kg      | 100     | Org-020       | <100       | [NT] |      | [NT]    | [NT] | 128        |                  |  |
| Surrogate o-Terphenyl                 | %          |         | Org-020       | 104        | [NT] |      | [NT]    | [NT] | 119        |                  |  |

| QUALITY CONT     | ROL: Acid E | xtractable | e metals in soil |            |      | Du   | plicate |      | Spike Re   | covery % |
|------------------|-------------|------------|------------------|------------|------|------|---------|------|------------|----------|
| Test Description | Units       | PQL        | Method           | Blank      | #    | Base | Dup.    | RPD  | LCS-8      | [NT]     |
| Date prepared    | -           |            |                  | 15/07/2020 | [NT] |      | [NT]    | [NT] | 15/07/2020 |          |
| Date analysed    | -           |            |                  | 15/07/2020 | [NT] |      | [NT]    | [NT] | 15/07/2020 |          |
| Arsenic          | mg/kg       | 4          | Metals-020       | <4         | [NT] |      | [NT]    | [NT] | 107        |          |
| Cadmium          | mg/kg       | 0.4        | Metals-020       | <0.4       | [NT] |      | [NT]    | [NT] | 104        |          |
| Chromium         | mg/kg       | 1          | Metals-020       | <1         | [NT] |      | [NT]    | [NT] | 110        |          |
| Copper           | mg/kg       | 1          | Metals-020       | <1         | [NT] |      | [NT]    | [NT] | 108        |          |
| Lead             | mg/kg       | 1          | Metals-020       | <1         | [NT] |      | [NT]    | [NT] | 103        |          |
| Mercury          | mg/kg       | 0.1        | Metals-021       | <0.1       | [NT] |      | [NT]    | [NT] | 109        |          |
| Nickel           | mg/kg       | 1          | Metals-020       | <1         | [NT] |      | [NT]    | [NT] | 109        |          |
| Zinc             | mg/kg       | 1          | Metals-020       | <1         | [NT] |      | [NT]    | [NT] | 109        |          |

| Result Definiti | ons                                       |
|-----------------|-------------------------------------------|
| 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                              |

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| <b>Quality Contro</b>              | ol 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<br>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.







CLIENT DETAILS -

LABORATORY DETAILS

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

55 MILLER STREET **PYRMONT NSW 2009** 

Huong Crawford Manager SGS Alexandria Environmental Laboratory Address

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Project E24724.E02 2 Mandala Parade, Castle Hill E24724.E02 Order Number

14 Samples

+61 2 8594 0400 Telephone Facsimile +61 2 8594 0499

Email au.environmental.sydney@sgs.com

17/7/2020

SGS Reference SE208846 R0

24/7/2020 Date Reported

Date Received

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Counter Ravee Sivasubramaniam.

SIGNATORIES

Bennet LO

Senior Organic Chemist/Metals Chemist

Kamrul AHSAN

Senior Chemist

Ly Kim HA

Organic Section Head

kmln

S. Ravenoln.

Ravee SIVASUBRAMANIAM

Hygiene Team Leader

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Member of the SGS Group



### VOC's in Soil [AN433] Tested: 21/7/2020

|               |       |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.7-0.8 | BH3M_1.7-1.8 |
|---------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|               |       |     |              |              |              |              |              |
|               |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|               |       |     | -            | -            | -            | -            | -            |
|               |       |     | 9/7/2020     | 9/7/2020     | 9/7/2020     | 13/7/2020    | 13/7/2020    |
| PARAMETER     | UOM   | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.005 | SE208846.006 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         | <0.6         | <0.6         | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |

|               |       |     | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 | BH4M_4.9-5.0 |
|---------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|               |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|               |       |     |              |              |              |              | -            |
|               |       |     |              | 14/7/2020    | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PARAMETER     | UOM   | LOR | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 | SE208846.011 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         | <0.6         | <0.6         | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |

|               |       |     | BH5M_0.1-0.2   | BH5M_1.5-1.6   | BH5M_1.9-2.0   |
|---------------|-------|-----|----------------|----------------|----------------|
|               |       |     | SOIL           | SOIL           | SOIL           |
|               |       |     | -<br>16/7/2020 | -<br>16/7/2020 | -<br>16/7/2020 |
| PARAMETER     | UOM   | LOR | SE208846.012   | SE208846.013   | SE208846.014   |
| Benzene       | mg/kg | 0.1 | <0.1           | <0.1           | <0.1           |
| Toluene       | mg/kg | 0.1 | <0.1           | <0.1           | <0.1           |
| Ethylbenzene  | mg/kg | 0.1 | <0.1           | <0.1           | <0.1           |
| m/p-xylene    | mg/kg | 0.2 | <0.2           | <0.2           | <0.2           |
| o-xylene      | mg/kg | 0.1 | <0.1           | <0.1           | <0.1           |
| Total Xylenes | mg/kg | 0.3 | <0.3           | <0.3           | <0.3           |
| Total BTEX    | mg/kg | 0.6 | <0.6           | <0.6           | <0.6           |
| Naphthalene   | mg/kg | 0.1 | <0.1           | <0.1           | <0.1           |

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#### Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 21/7/2020

|                            |       |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.7-0.8 | BH3M_1.7-1.8 |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                            |       |     |              |              |              |              |              |
|                            |       |     | 9/7/2020     | 9/7/2020     | 9/7/2020     | 13/7/2020    | 13/7/2020    |
| PARAMETER                  | UOM   | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.005 | SE208846.006 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |

|                            |       |     | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 | BH4M_4.9-5.0 |
|----------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                            |       |     | -            | -            | -            | -            | -            |
|                            |       |     |              | 14/7/2020    | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PARAMETER                  | UOM   | LOR | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 | SE208846.011 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |

|                            |       |     | BH5M_0.1-0.2           | BH5M_1.5-1.6           | BH5M_1.9-2.0           |
|----------------------------|-------|-----|------------------------|------------------------|------------------------|
|                            |       |     | SOIL<br>-<br>16/7/2020 | SOIL<br>-<br>16/7/2020 | SOIL<br>-<br>16/7/2020 |
| PARAMETER                  | UOM   | LOR | SE208846.012           | SE208846.013           | SE208846.014           |
| TRH C6-C9                  | mg/kg | 20  | <20                    | <20                    | <20                    |
| Benzene (F0)               | mg/kg | 0.1 | <0.1                   | <0.1                   | <0.1                   |
| TRH C6-C10                 | mg/kg | 25  | <25                    | <25                    | <25                    |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25                    | <25                    | <25                    |

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### TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 21/7/2020

|                                 |       |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.7-0.8 | BH3M_1.7-1.8 |
|---------------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |       |     |              |              |              |              |              |
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                                 |       |     |              |              |              |              |              |
|                                 |       |     |              |              |              | 13/7/2020    | 13/7/2020    |
| PARAMETER                       | UOM   | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.005 | SE208846.006 |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210         | <210         |

|                                 |       |     | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0  | BH4M_4.9-5.0   |
|---------------------------------|-------|-----|--------------|--------------|--------------|---------------|----------------|
|                                 |       |     | DH3W_2.0-2.9 | BH4W_0.3-0.5 | DH4W_1.4-1.5 | DH4WI_2.9-3.0 | DП4IVI_4.9-5.0 |
|                                 |       |     | SOIL         | SOIL         | SOIL         | SOIL          | SOIL           |
|                                 |       |     |              |              |              |               |                |
|                                 |       |     |              | 14/7/2020    | 14/7/2020    | 14/7/2020     | 14/7/2020      |
| PARAMETER                       | UOM   | LOR | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010  | SE208846.011   |
| TRH C10-C14                     | mg/kg | 20  | <20          | <20          | <20          | <20           | <20            |
| TRH C15-C28                     | mg/kg | 45  | <45          | <45          | <45          | <45           | <45            |
| TRH C29-C36                     | mg/kg | 45  | <45          | <45          | <45          | <45           | <45            |
| TRH C37-C40                     | mg/kg | 100 | <100         | <100         | <100         | <100          | <100           |
| TRH >C10-C16                    | mg/kg | 25  | <25          | <25          | <25          | <25           | <25            |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25          | <25          | <25          | <25           | <25            |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90          | <90          | <90          | <90           | <90            |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120         | <120         | <120         | <120          | <120           |
| TRH C10-C36 Total               | mg/kg | 110 | <110         | <110         | <110         | <110          | <110           |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210         | <210         | <210         | <210          | <210           |

|                                 |       |     | BH5M_0.1-0.2 BH5M_1.5-1.6 |              | BH5M_1.9-2.0 |
|---------------------------------|-------|-----|---------------------------|--------------|--------------|
|                                 |       |     | SOIL                      | SOIL         | SOIL         |
|                                 |       |     |                           |              | -            |
|                                 |       |     |                           |              | 16/7/2020    |
| PARAMETER                       | UOM   | LOR | SE208846.012              | SE208846.013 | SE208846.014 |
| TRH C10-C14                     | mg/kg | 20  | <20                       | <20          | <20          |
| TRH C15-C28                     | mg/kg | 45  | <45                       | <45          | <45          |
| TRH C29-C36                     | mg/kg | 45  | <45                       | <45          | <45          |
| TRH C37-C40                     | mg/kg | 100 | <100                      | <100         | <100         |
| TRH >C10-C16                    | mg/kg | 25  | <25                       | <25          | <25          |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25                       | <25          | <25          |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90                       | <90          | <90          |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120                      | <120         | <120         |
| TRH C10-C36 Total               | mg/kg | 110 | <110                      | <110         | <110         |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210                      | <210         | <210         |

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### PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 21/7/2020

|                                                                                                                                                                            |             |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7   | BH3M_0.7-0.8   | BH3M_1.7-1.8   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|--------------|---------------|----------------|----------------|
|                                                                                                                                                                            |             |     |              |              |               |                |                |
|                                                                                                                                                                            |             |     | SOIL         | SOIL         | SOIL          | SOIL           | SOIL           |
|                                                                                                                                                                            |             |     | 9/7/2020     | 9/7/2020     | -<br>9/7/2020 | -<br>13/7/2020 | -<br>13/7/2020 |
| PARAMETER                                                                                                                                                                  | UOM         | LOR | SE208846.001 | SE208846.002 | SE208846.003  | SE208846.005   | SE208846.006   |
| Naphthalene                                                                                                                                                                | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| 2-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| 1-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Acenaphthylene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Acenaphthene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Fluorene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Phenanthrene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Anthracene                                                                                                                                                                 | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Fluoranthene                                                                                                                                                               | mg/kg       | 0.1 | 0.1          | <0.1         | <0.1          | <0.1           | <0.1           |
| Pyrene                                                                                                                                                                     | mg/kg       | 0.1 | 0.1          | <0.1         | <0.1          | <0.1           | <0.1           |
| Benzo(a)anthracene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Chrysene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Benzo(b&j)fluoranthene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Benzo(k)fluoranthene                                                                                                                                                       | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Benzo(a)pyrene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Indeno(1,2,3-cd)pyrene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Dibenzo(ah)anthracene                                                                                                                                                      | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Benzo(ghi)perylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1          | <0.1           | <0.1           |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2          | <0.2           | <0.2           |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3         | <0.3         | <0.3          | <0.3           | <0.3           |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2          | <0.2           | <0.2           |
| Total PAH (18)                                                                                                                                                             | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8          | <0.8           | <0.8           |
| Total PAH (NEPM/WHO 16)                                                                                                                                                    | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8          | <0.8           | <0.8           |

| Naphthalene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |             |     | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 | BH4M_4.9-5.0 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|--------------|--------------|--------------|--------------|
| Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                            |             |     | 2011         | 2011         | 8011         | 2011         | 5011         |
| PARAMETER         UOM         LOR         SE208846.007         SE208846.008         SE208846.009         SE208846.010         SE208846.011           Naphthalene         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                            |             |     |              |              |              |              | 50IL<br>-    |
| Naphthalene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                            |             |     |              | 14/7/2020    | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PercentifyInaphthalene   mg/kg   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.1   <0.1   <0.   | PARAMETER                                                                                                                                                                  | UOM         | LOR | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 | SE208846.011 |
| 1-methylnaphthalene         mg/kg         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         <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         <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         <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         <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 </td <td>Naphthalene</td> <td>mg/kg</td> <td>0.1</td> <td>&lt;0.1</td> <td>&lt;0.1</td> <td>&lt;0.1</td> <td>&lt;0.1</td> <td>&lt;0.1</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Naphthalene                                                                                                                                                                | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Acenaphthylene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Acenaphthene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1-methylnaphthalene                                                                                                                                                        | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Fluorene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Acenaphthylene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Phenanthrene         mg/kg         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         <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         <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         <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         <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Acenaphthene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Anthracene mg/kg 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 < 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 | Fluorene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Fluoranthene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Phenanthrene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Pyrene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Anthracene                                                                                                                                                                 | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(a)anthracene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Fluoranthene                                                                                                                                                               | mg/kg       | 0.1 | <0.1         | 0.1          | <0.1         | <0.1         | <0.1         |
| Chrysene         mg/kg         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         <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         <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         <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         <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Pyrene                                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | 0.1          | <0.1         | <0.1         | <0.1         |
| Benzo(b&)fluoranthene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Benzo(a)anthracene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(k)fluoranthene         mg/kg         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         <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         <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         <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         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.1         <0.2         <0.2<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Chrysene                                                                                                                                                                   | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(a)pyrene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Benzo(b&j)fluoranthene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Indeno(1,2,3-cd)pyrene   mg/kg   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.1   <0.1   <0.   | Benzo(k)fluoranthene                                                                                                                                                       | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Dibenzo(ah)anthracene mg/kg 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Benzo(a)pyrene                                                                                                                                                             | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Benzo(ghi)perylene   mg/kg   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.1   <0.1   <0.1      | Indeno(1,2,3-cd)pyrene                                                                                                                                                     | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=0< th="">         TEQ (mg/kg)         0.2         &lt;0.2         &lt;0.3         &lt;0.2         &lt;0.8         &lt;0.8         &lt;0.8<td>Dibenzo(ah)anthracene</td><td>mg/kg</td><td>0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td></lor=0<>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Dibenzo(ah)anthracene                                                                                                                                                      | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=lor< th="">         TEQ (mg/kg)         0.3         &lt;0.3         &lt;0.2         &lt;0.8         &lt;0.8         &lt;0.8<!--</td--><td>Benzo(ghi)perylene</td><td>mg/kg</td><td>0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td><td>&lt;0.1</td></lor=lor<>                                                                                                                                                                                                                                                                                                                                                                                                                         | Benzo(ghi)perylene                                                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         | <0.1         | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" th="">         TEQ (mg/kg)         0.2         &lt; 0.8         &lt; 0.8<td>Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<></td></lor=lor>                                                                                                                                                                                                                                                                                                                                                                      | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PAH (18) mg/kg 0.8 <0.8 <0.8 <0.8 <0.8 <0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         | <0.2         |
| Total PAH (NEPM/WHO 16) mg/kg 0.8 <0.8 <0.8 <0.8 <0.8 <0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Total PAH (18)                                                                                                                                                             | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8         | <0.8         | <0.8         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total PAH (NEPM/WHO 16)                                                                                                                                                    | mg/kg       | 0.8 | <0.8         | <0.8         | <0.8         | <0.8         | <0.8         |

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### PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 21/7/2020 (continued)

|                                                                                                                                        |             |     | BH5M_0.1-0.2 | BH5M_1.5-1.6 | BH5M_1.9-2.0 |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|--------------|--------------|
|                                                                                                                                        |             |     | SOIL         | SOIL         | SOIL         |
|                                                                                                                                        |             |     |              |              |              |
|                                                                                                                                        |             |     |              |              |              |
| PARAMETER                                                                                                                              | UOM         | LOR | SE208846.012 | SE208846.013 | SE208846.014 |
| Naphthalene                                                                                                                            | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| 2-methylnaphthalene                                                                                                                    | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| 1-methylnaphthalene                                                                                                                    | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| Acenaphthylene                                                                                                                         | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| Acenaphthene                                                                                                                           | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| Fluorene                                                                                                                               | mg/kg       | 0.1 | 0.2          | <0.1         | <0.1         |
| Phenanthrene                                                                                                                           | mg/kg       | 0.1 | 1.6          | <0.1         | <0.1         |
| Anthracene                                                                                                                             | mg/kg       | 0.1 | 0.4          | <0.1         | <0.1         |
| Fluoranthene                                                                                                                           | mg/kg       | 0.1 | 1.6          | <0.1         | <0.1         |
| Pyrene                                                                                                                                 | mg/kg       | 0.1 | 1.4          | <0.1         | <0.1         |
| Benzo(a)anthracene                                                                                                                     | mg/kg       | 0.1 | 0.6          | <0.1         | <0.1         |
| Chrysene                                                                                                                               | mg/kg       | 0.1 | 0.6          | <0.1         | <0.1         |
| Benzo(b&j)fluoranthene                                                                                                                 | mg/kg       | 0.1 | 0.4          | <0.1         | <0.1         |
| Benzo(k)fluoranthene                                                                                                                   | mg/kg       | 0.1 | 0.4          | <0.1         | <0.1         |
| Benzo(a)pyrene                                                                                                                         | mg/kg       | 0.1 | 0.5          | <0.1         | <0.1         |
| Indeno(1,2,3-cd)pyrene                                                                                                                 | mg/kg       | 0.1 | 0.3          | <0.1         | <0.1         |
| Dibenzo(ah)anthracene                                                                                                                  | mg/kg       | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(ghi)perylene                                                                                                                     | mg/kg       | 0.1 | 0.2          | <0.1         | <0.1         |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>0.7</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | 0.7          | <0.2         | <0.2         |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>0.8</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | 0.8          | <0.3         | <0.3         |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>0.8</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | 0.8          | <0.2         | <0.2         |
| Total PAH (18)                                                                                                                         | mg/kg       | 0.8 | 8.0          | <0.8         | <0.8         |
| Total PAH (NEPM/WHO 16)                                                                                                                | mg/kg       | 0.8 | 8.0          | <0.8         | <0.8         |

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### OC Pesticides in Soil [AN420] Tested: 21/7/2020

|                         |       |     | BH2_0.1-0.2              | BH2_1.2-1.3              | BH2_1.6-1.7              | BH3M_0.7-0.8              | BH3M_1.7-1.8              |
|-------------------------|-------|-----|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
|                         |       |     | БП2_0.1-0.2              | БП2_1.2-1.3              | БП2_1.0-1.7              | BH3W_U.7-U.6              | БПЗIVI_1.7-1.0            |
|                         |       |     | SOIL                     | SOIL                     | SOIL                     | SOIL                      | SOIL                      |
|                         |       |     |                          |                          |                          |                           |                           |
| PARAMETER               | UOM   | LOR | 9/7/2020<br>SE208846.001 | 9/7/2020<br>SE208846.002 | 9/7/2020<br>SE208846.003 | 13/7/2020<br>SE208846.005 | 13/7/2020<br>SE208846.006 |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Alpha BHC               | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Lindane                 | 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                      |
| Aldrin                  | 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                      |
| Delta BHC               | 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                      |
| o,p'-DDE                | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2                     | -                        | <0.2                     | <0.2                      | <0.2                      |
| 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                      |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| p,p'-DDE                | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Dieldrin                | mg/kg | 0.2 | <0.2                     | -                        | <0.2                     | <0.2                      | <0.2                      |
| Endrin                  | mg/kg | 0.2 | <0.2                     | -                        | <0.2                     | <0.2                      | <0.2                      |
| o,p'-DDD                | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| o,p'-DDT                | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2                     | -                        | <0.2                     | <0.2                      | <0.2                      |
| p,p'-DDD                | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| p,p'-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                      |
| Endrin Aldehyde         | 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                      |
| Endrin Ketone           | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Isodrin                 | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Mirex                   | mg/kg | 0.1 | <0.1                     | -                        | <0.1                     | <0.1                      | <0.1                      |
| Total CLP OC Pesticides | mg/kg | 1   | <1                       | -                        | <1                       | <1                        | <1                        |

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SE208846 R0



OC Pesticides in Soil [AN420] Tested: 21/7/2020 (continued)

| SOIL   SOIL |                         |       |     | BH3M_2.8-2.9 | BH4M_0.3-0.5  | BH4M_1.4-1.5  | BH4M 2.9-3.0  | BH4M 4.9-5.0    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|-----|--------------|---------------|---------------|---------------|-----------------|
| PARAMETER         UOM         LOR         \$520844.007         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009         \$520846.009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |       |     |              | D114M_0.0 0.0 | 5114M_1.4 1.0 | B114M_2.0 0.0 | B114III_4.0 0.0 |
| PARMETER         UOM         LOR         SE208846.007         SE208846.008         SE208846.009         CRE20846.008         CRE20846.009         CRE20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |       |     | SOIL         | SOIL          | SOIL          | SOIL          | SOIL            |
| PARMETER         UOM         LOR         SE208846.007         SE208846.008         SE208846.009         CRE20846.008         CRE20846.009         CRE20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |       |     | -            | -             | -             | -             | -               |
| Hexachtorobenzene (HCB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PARAMETER               | UOM   | LOR |              |               |               |               | SE208846.011    |
| Lindane         mp/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Hexachlorobenzene (HCB) | mg/kg | 0.1 |              |               |               |               |                 |
| Heptachlor         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Alpha BHC               | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Addin         ng/kg         0.1         < 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lindane                 | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Beta BHC         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Heptachlor              | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Delta BHC         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Aldrin                  | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Heptachlor epoxide mg/kg 0.1 40.1 40.1 40.1 40.1 40.1 40.1 40.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Beta BHC                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| α,ρ'-DDE         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Delta BHC               | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Alpha Endosulfan         mg/kg         0.2         <0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Heptachlor epoxide      | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Gamma Chlordane         mg/kg         0.1         < 0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | o,p'-DDE                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Alpha Chiordane         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Alpha Endosulfan        | mg/kg | 0.2 | <0.2         | <0.2          | -             | <0.2          | -               |
| trans-Nonachlor         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Gamma Chlordane         | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| p.p'-DDE         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Alpha Chlordane         | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Dieldrin         mg/kg         0.2         <0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | trans-Nonachlor         | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Endrin         mg/kg         0.2         <0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | p,p'-DDE                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| O,p'-DDD         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Dieldrin                | mg/kg | 0.2 | <0.2         | <0.2          | -             | <0.2          | -               |
| o,p'-DDT         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Endrin                  | mg/kg | 0.2 | <0.2         | <0.2          | -             | <0.2          | -               |
| Beta Endosulfan         mg/kg         0.2         <0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | o,p'-DDD                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| p,p'-DDD         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | o,p'-DDT                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| p,p'-DDT         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Beta Endosulfan         | mg/kg | 0.2 | <0.2         | <0.2          | -             | <0.2          | -               |
| Endosulfan sulphate         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | p,p'-DDD                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Endrin Aldehyde         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | p,p'-DDT                | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Methoxychlor         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Endosulfan sulphate     | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Endrin Ketone         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Endrin Aldehyde         | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Isodrin         mg/kg         0.1         <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Methoxychlor            | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Mirex mg/kg 0.1 <0.1 <0.1 - <0.1 - <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Endrin Ketone           | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Isodrin                 | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mirex                   | mg/kg | 0.1 | <0.1         | <0.1          | -             | <0.1          | -               |
| Total CLP OC Pesticides mg/kg 1 <1 <1 - <1 -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Total CLP OC Pesticides | mg/kg | 1   | <1           | <1            | -             | <1            | -               |

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OC Pesticides in Soil [AN420] Tested: 21/7/2020 (continued)

|                         |       |     | BH5M_0.1-0.2              | BH5M_1.5-1.6              | BH5M_1.9-2.0              |
|-------------------------|-------|-----|---------------------------|---------------------------|---------------------------|
|                         |       |     | SOIL                      | SOIL                      | SOIL                      |
|                         |       |     |                           |                           |                           |
| PARAMETER               | UOM   | LOR | 16/7/2020<br>SE208846.012 | 16/7/2020<br>SE208846.013 | 16/7/2020<br>SE208846.014 |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1                      | 3E200040.013              | <0.1                      |
| Alpha BHC               | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Lindane                 | mg/kg | 0.1 | <0.1                      | _                         | <0.1                      |
| Heptachlor              | mg/kg | 0.1 | <0.1                      | _                         | <0.1                      |
| Aldrin                  | mg/kg | 0.1 | <0.1                      | _                         | <0.1                      |
| Beta BHC                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Delta BHC               | mg/kg | 0.1 | <0.1                      | _                         | <0.1                      |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| o,p'-DDE                | mg/kg | 0.1 | <0.1                      | _                         | <0.1                      |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2                      | _                         | <0.2                      |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| p,p'-DDE                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Dieldrin                | mg/kg | 0.2 | <0.2                      | -                         | <0.2                      |
| Endrin                  | mg/kg | 0.2 | <0.2                      | -                         | <0.2                      |
| o,p'-DDD                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| o,p'-DDT                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2                      | -                         | <0.2                      |
| p,p'-DDD                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| p,p'-DDT                | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Endrin Aldehyde         | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Methoxychlor            | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Endrin Ketone           | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Isodrin                 | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
| Mirex                   | mg/kg | 0.1 | <0.1                      | -                         | <0.1                      |
|                         |       |     |                           |                           |                           |

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### OP Pesticides in Soil [AN420] Tested: 21/7/2020

|                                   |       |     | BH2_0.1-0.2              | BH2_1.6-1.7              | BH3M_0.7-0.8              | BH3M_1.7-1.8              | BH3M_2.8-2.9              |
|-----------------------------------|-------|-----|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
|                                   |       |     | SOIL<br>-                | SOIL<br>-                | SOIL<br>-                 | SOIL<br>-                 | SOIL<br>-                 |
| PARAMETER                         | UOM   | LOR | 9/7/2020<br>SE208846.001 | 9/7/2020<br>SE208846.003 | 13/7/2020<br>SE208846.005 | 13/7/2020<br>SE208846.006 | 13/7/2020<br>SE208846.007 |
| Dichlorvos                        | mg/kg | 0.5 | <0.5                     | <0.5                     | <0.5                      | <0.5                      | <0.5                      |
| Dimethoate                        | mg/kg | 0.5 | <0.5                     | <0.5                     | <0.5                      | <0.5                      | <0.5                      |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                     | <0.5                     | <0.5                      | <0.5                      | <0.5                      |
| Fenitrothion                      | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Malathion                         | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Methidathion                      | mg/kg | 0.5 | <0.5                     | <0.5                     | <0.5                      | <0.5                      | <0.5                      |
| Ethion                            | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                     | <0.2                     | <0.2                      | <0.2                      | <0.2                      |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7                     | <1.7                     | <1.7                      | <1.7                      | <1.7                      |

|                                   |       |     | BH4M_0.3-0.5 | BH4M_2.9-3.0 | BH5M_0.1-0.2 | BH5M_1.9-2.0 |
|-----------------------------------|-------|-----|--------------|--------------|--------------|--------------|
|                                   |       |     | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    |
| DADAMETER                         | 11014 | LOD | 14/7/2020    | 14/7/2020    | 16/7/2020    | 16/7/2020    |
| PARAMETER                         | UOM   | LOR | SE208846.008 | SE208846.010 | SE208846.012 | SE208846.014 |
| Dichlorvos                        | mg/kg | 0.5 | <0.5         | <0.5         | <0.5         | <0.5         |
| Dimethoate                        | mg/kg | 0.5 | <0.5         | <0.5         | <0.5         | <0.5         |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5         | <0.5         | <0.5         | <0.5         |
| Fenitrothion                      | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Malathion                         | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Methidathion                      | mg/kg | 0.5 | <0.5         | <0.5         | <0.5         | <0.5         |
| Ethion                            | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2         | <0.2         | <0.2         | <0.2         |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7         | <1.7         | <1.7         | <1.7         |

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### PCBs in Soil [AN420] Tested: 21/7/2020

|                        |       |     |              | ı            | 1            |              | 1            |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.7-0.8 | BH3M_1.7-1.8 |
|                        |       |     |              |              |              |              |              |
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     |              |              |              | 13/7/2020    | 13/7/2020    |
| PARAMETER              | UOM   | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.005 | SE208846.006 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | -            | <0.2         | <0.2         | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | -            | <1           | <1           | <1           |

|                        |       |     | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 | BH4M_4.9-5.0 |
|------------------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|                        |       |     |              |              |              |              |              |
|                        |       |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              |              |              |              |
|                        |       |     |              | 14/7/2020    | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PARAMETER              | UOM   | LOR | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 | SE208846.011 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | <0.2         | -            | <0.2         | -            |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | <1           | -            | <1           | -            |

|                        |       |     | BH5M_0.1-0.2 | BH5M_1.5-1.6 | BH5M_1.9-2.0 |
|------------------------|-------|-----|--------------|--------------|--------------|
|                        |       |     | SOIL         | SOIL         | SOIL         |
|                        |       |     |              |              | -            |
|                        |       |     |              |              | 16/7/2020    |
| PARAMETER              | UOM   | LOR | SE208846.012 | SE208846.013 | SE208846.014 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1221          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1232          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1242          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1248          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1254          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1260          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1262          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Arochlor 1268          | mg/kg | 0.2 | <0.2         | -            | <0.2         |
| Total PCBs (Arochlors) | mg/kg | 1   | <1           | -            | <1           |

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### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 21/7/2020

|              |       |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.1-0.2 | BH3M_0.7-0.8 |
|--------------|-------|-----|--------------|--------------|--------------|--------------|--------------|
|              |       |     |              |              | 0011         | 0011         | 001          |
|              |       |     | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    | SOIL<br>-    |
|              |       |     | 9/7/2020     | 9/7/2020     | 9/7/2020     | 13/7/2020    | 13/7/2020    |
| PARAMETER    | UOM   | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.004 | SE208846.005 |
| Arsenic, As  | mg/kg | 1   | 4            | 7            | 14           | 5            | 3            |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3         | <0.3         | <0.3         | <0.3         | <0.3         |
| Chromium, Cr | mg/kg | 0.5 | 14           | 25           | 9.8          | 24           | 16           |
| Copper, Cu   | mg/kg | 0.5 | 21           | 2.3          | 2.9          | 9.2          | 16           |
| Lead, Pb     | mg/kg | 1   | 11           | 12           | 21           | 14           | 16           |
| Nickel, Ni   | mg/kg | 0.5 | 17           | 2.9          | <0.5         | 6.9          | 10           |
| Zinc, Zn     | mg/kg | 2   | 27           | 6.9          | 2.4          | 21           | 26           |

|              |       |     | BH3M_1.7-1.8   | BH3M_2.8-2.9   | BH4M_0.3-0.5   | BH4M_1.4-1.5   | BH4M_2.9-3.0   |
|--------------|-------|-----|----------------|----------------|----------------|----------------|----------------|
|              |       |     | SOIL           | SOIL           | SOIL           | SOIL           | SOIL           |
|              |       |     | -<br>13/7/2020 | -<br>13/7/2020 | -<br>14/7/2020 | -<br>14/7/2020 | -<br>14/7/2020 |
| PARAMETER    | UOM   | LOR | SE208846.006   | SE208846.007   | SE208846.008   | SE208846.009   | SE208846.010   |
| Arsenic, As  | mg/kg | 1   | 4              | 2              | 6              | 2              | 5              |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3           | <0.3           | <0.3           | <0.3           | <0.3           |
| Chromium, Cr | mg/kg | 0.5 | 13             | 13             | 15             | 6.3            | 18             |
| Copper, Cu   | mg/kg | 0.5 | 12             | 14             | 19             | 2.8            | 5.3            |
| Lead, Pb     | mg/kg | 1   | 17             | 5              | 16             | 6              | 10             |
| Nickel, Ni   | mg/kg | 0.5 | 7.8            | 3.5            | 8.5            | 0.9            | 3.6            |
| Zinc, Zn     | mg/kg | 2   | 32             | 17             | 35             | 5.3            | 9.5            |

|              |       |     | BH4M_4.9-5.0           | BH5M_0.1-0.2           | BH5M_1.5-1.6           | BH5M_1.9-2.0           |
|--------------|-------|-----|------------------------|------------------------|------------------------|------------------------|
|              |       |     | SOIL<br>-<br>14/7/2020 | SOIL<br>-<br>16/7/2020 | SOIL<br>-<br>16/7/2020 | SOIL<br>-<br>16/7/2020 |
| PARAMETER    | UOM   | LOR | SE208846.011           | SE208846.012           | SE208846.013           | SE208846.014           |
| Arsenic, As  | mg/kg | 1   | 2                      | 4                      | 6                      | 4                      |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3                   | <0.3                   | <0.3                   | <0.3                   |
| Chromium, Cr | mg/kg | 0.5 | 4.5                    | 9.5                    | 11                     | 15                     |
| Copper, Cu   | mg/kg | 0.5 | 2.7                    | 14                     | 14                     | 3.8                    |
| Lead, Pb     | mg/kg | 1   | 7                      | 11                     | 11                     | 8                      |
| Nickel, Ni   | mg/kg | 0.5 | 4.0                    | 7.2                    | 16                     | 2.3                    |
| Zinc, Zn     | mg/kg | 2   | 25                     | 22                     | 24                     | 6.8                    |

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### Mercury in Soil [AN312] Tested: 21/7/2020

|           |       |      | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.1-0.2 | BH3M_0.7-0.8 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              |              |
|           |       |      |              |              |              | 13/7/2020    | 13/7/2020    |
| PARAMETER | UOM   | LOR  | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.004 | SE208846.005 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | BH3M_1.7-1.8 | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 |
|-----------|-------|------|--------------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              | -            |
|           |       |      |              |              | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PARAMETER | UOM   | LOR  | SE208846.006 | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        | <0.05        |

|           |       |      | BH4M_4.9-5.0 | BH5M_0.1-0.2 | BH5M_1.5-1.6 | BH5M_1.9-2.0 |
|-----------|-------|------|--------------|--------------|--------------|--------------|
|           |       |      | SOIL         | SOIL         | SOIL         | SOIL         |
|           |       |      |              |              |              |              |
|           |       |      | 14/7/2020    | 16/7/2020    | 16/7/2020    | 16/7/2020    |
| PARAMETER | UOM   | LOR  | SE208846.011 | SE208846.012 | SE208846.013 | SE208846.014 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        | <0.05        | <0.05        |

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### Moisture Content [AN002] Tested: 21/7/2020

|            |      |     | BH2_0.1-0.2  | BH2_1.2-1.3  | BH2_1.6-1.7  | BH3M_0.1-0.2 | BH3M_0.7-0.8 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              | -            |
|            |      |     |              |              |              | 13/7/2020    | 13/7/2020    |
| PARAMETER  | UOM  | LOR | SE208846.001 | SE208846.002 | SE208846.003 | SE208846.004 | SE208846.005 |
| % Moisture | %w/w | 1   | 13.4         | 31.4         | 24.9         | 12.9         | 12.8         |

|            |      |     | BH3M_1.7-1.8 | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_1.4-1.5 | BH4M_2.9-3.0 |
|------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     |              |              |              |              |              |
|            |      |     |              | 13/7/2020    | 14/7/2020    | 14/7/2020    | 14/7/2020    |
| PARAMETER  | UOM  | LOR | SE208846.006 | SE208846.007 | SE208846.008 | SE208846.009 | SE208846.010 |
| % Moisture | %w/w | 1   | 14.2         | 13.3         | 11.1         | 8.4          | 10.5         |

|            |      |     | BH4M_4.9-5.0 | BH5M_0.1-0.2 | BH5M_1.5-1.6 | BH5M_1.9-2.0 |
|------------|------|-----|--------------|--------------|--------------|--------------|
|            |      |     | SOIL         | SOIL         | SOIL         | SOIL         |
|            |      |     | -            | -            | -            | -            |
|            |      |     | 14/7/2020    | 16/7/2020    | 16/7/2020    | 16/7/2020    |
| PARAMETER  | UOM  | LOR | SE208846.011 | SE208846.012 | SE208846.013 | SE208846.014 |
| % Moisture | %w/w | 1   | 6.6          | 11.4         | 14.3         | 9.1          |

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### Fibre Identification in soil [AN602] Tested: 23/7/2020

|                   |         |      | BH2_0.1-0.2  | BH2_1.6-1.7  | BH3M_0.1-0.2 | BH3M_0.7-0.8 | BH3M_1.7-1.8 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              | -            |
|                   |         |      |              |              | 13/7/2020    | 13/7/2020    | 13/7/2020    |
| PARAMETER         | UOM     | LOR  | SE208846.001 | SE208846.003 | SE208846.004 | SE208846.005 | SE208846.006 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

|                   |         |      | BH3M_2.8-2.9 | BH4M_0.3-0.5 | BH4M_2.9-3.0 | BH5M_0.1-0.2 | BH5M_1.9-2.0 |
|-------------------|---------|------|--------------|--------------|--------------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         | SOIL         | SOIL         | SOIL         |
|                   |         |      |              |              |              |              |              |
|                   |         |      |              | 14/7/2020    | 14/7/2020    |              |              |
| PARAMETER         | UOM     | LOR  | SE208846.007 | SE208846.008 | SE208846.010 | SE208846.012 | SE208846.014 |
| Asbestos Detected | No unit | -    | No           | No           | No           | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        | <0.01        | <0.01        | <0.01        |

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# **METHOD SUMMARY**



METHOD \_\_\_\_\_ METHODOLOGY SUMMARY \_

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

**AN040** 

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

AN312

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500

AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.

AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .

AN403

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.

AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

AN420

SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

**AN433** 

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

**AN602** 

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

AN602

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

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FOOTNOTES

\* NATA accreditation does not cover the performance of this service.

\* Indicative data, theoretical holding time exceeded

Not analysed.NVL Not validated.

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

UOM Unit of Measure.

LOR Limit of Reporting.

↑↓ Raised/lowered Limit of

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-qb/environment-health-and-safety">www.sgs.com.au/en-qb/environment-health-and-safety</a>.

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Email





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LABORATORY DETAILS

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10 Samples

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SGS Reference SE208846 R0 17 Jul 2020 Date Received

24 Jul 2020 Date Reported

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Counter Ravee Sivasubramaniam.

SIGNATORIES

Bennet LO

Senior Organic Chemist/Metals Chemis

Kamrul AHSAN

Senior Chemist

Ly Kim HA

Organic Section Head

kmln

S. Ravenoln.

Ravee SIVASUBRAMANIAM Hygiene Team Leader

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# SGS

# **ANALYTICAL REPORT**

Fibre Identification in soil Method AN602

| Laboratory<br>Reference | Client<br>Reference | Matrix | Sample<br>Description     | Date Sampled | Fibre Identification                         | Est.%w/w* |
|-------------------------|---------------------|--------|---------------------------|--------------|----------------------------------------------|-----------|
| SE208846.001            | BH2_0.1-0.2         | Soil   | 170g Clay,<br>Sand, Rocks | 09 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.003            | BH2_1.6-1.7         | Soil   | 116g Clay                 | 09 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.004            | BH3M_0.1-0.2        | Soil   | 245g Clay,<br>Sand, Rocks | 13 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.005            | BH3M_0.7-0.8        | Soil   | 272g Clay,<br>Sand, Rocks | 13 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.006            | BH3M_1.7-1.8        | Soil   | 271g Clay,<br>Sand, Rocks | 13 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.007            | BH3M_2.8-2.9        | Soil   | 294g Clay,<br>Sand, Rocks | 13 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.008            | BH4M_0.3-0.5        | Soil   | 385g Clay,<br>Sand, Rocks | 14 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected | <0.01     |
| SE208846.010            | BH4M_2.9-3.0        | Soil   | 238g Clay,<br>Sand, Rocks | 14 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.012            | BH5M_0.1-0.2        | Soil   | 222g Clay,<br>Sand, Rocks | 16 Jul 2020  | No Asbestos Found                            | <0.01     |
| SE208846.014            | BH5M_1.9-2.0        | Soil   | 141g Clay, Sand           | 16 Jul 2020  | No Asbestos Found                            | <0.01     |

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### **METHOD SUMMARY**

METHOD -

METHODOLOGY SUMMARY

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

AN602

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

### FOOTNOTES -

Amosite - Brown Asbestos NA - Not Analysed
Chrysotile - White Asbestos LNR - Listed, Not Required

Crocidolite - Blue Asbestos \* - NATA accreditation does not cover the performance of this service .

Amphiboles - Amosite and/or Crocidolite \*\* - Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-gb/environment-health-and-safety">www.sgs.com.au/en-gb/environment-health-and-safety</a>.

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### **ANALYTICAL REPORT**





CLIENT DETAILS

LABORATORY DETAILS

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

55 MILLER STREET

PYRMONT NSW 2009

61 2 95160722 (Not specified)

Facsimile li.wei@eiaustralia.com.au Email

E24724.E02 Order Number

Samples

**Huong Crawford** Manager

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Alexandria NSW 2015

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SGS Reference SE209082 R0

Date Received 23/7/2020 30/7/2020 Date Reported

COMMENTS

Telephone

Project

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

E24724.E02 2 Mandala Parade, Castle Hill

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

SIGNATORIES

**Bennet LO** 

Senior Organic Chemist/Metals Chemist

Kamrul AHSAN

Senior Chemist

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SE209082 R0

## VOC's in Soil [AN433] Tested: 24/7/2020

|               |       |     | BH6_0.1-0.2  | BH6_1.4-1.5  |
|---------------|-------|-----|--------------|--------------|
|               |       |     | SOIL         | SOIL         |
|               |       |     |              |              |
| PARAMETER     | иом   | LOR | SE209082.001 | SE209082.004 |
| Benzene       | mg/kg | 0.1 | <0.1         | <0.1         |
| Toluene       | mg/kg | 0.1 | <0.1         | <0.1         |
| Ethylbenzene  | mg/kg | 0.1 | <0.1         | <0.1         |
| m/p-xylene    | mg/kg | 0.2 | <0.2         | <0.2         |
| o-xylene      | mg/kg | 0.1 | <0.1         | <0.1         |
| Total Xylenes | mg/kg | 0.3 | <0.3         | <0.3         |
| Total BTEX    | mg/kg | 0.6 | <0.6         | <0.6         |
| Naphthalene   | mg/kg | 0.1 | <0.1         | <0.1         |

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### Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 24/7/2020

|                            |       |     | BH6_0.1-0.2  | BH6_1.4-1.5  |
|----------------------------|-------|-----|--------------|--------------|
|                            |       |     | SOIL<br>-    | SOIL         |
|                            |       |     |              |              |
| PARAMETER                  | UOM   | LOR | SE209082.001 | SE209082.004 |
| TRH C6-C9                  | mg/kg | 20  | <20          | <20          |
| Benzene (F0)               | mg/kg | 0.1 | <0.1         | <0.1         |
| TRH C6-C10                 | mg/kg | 25  | <25          | <25          |
| TRH C6-C10 minus BTEX (F1) | mg/kg | 25  | <25          | <25          |

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### TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 24/7/2020

|                                 |       |     | BH6_0.1-0.2    | BH6_1.4-1.5    |
|---------------------------------|-------|-----|----------------|----------------|
|                                 |       |     | SOIL           | SOIL           |
|                                 |       |     | -<br>20/7/2020 | -<br>20/7/2020 |
| PARAMETER                       | UOM   | LOR | SE209082.001   | SE209082.004   |
| TRH C10-C14                     | mg/kg | 20  | <20            | <20            |
| TRH C15-C28                     | mg/kg | 45  | <45            | <45            |
| TRH C29-C36                     | mg/kg | 45  | <45            | <45            |
| TRH C37-C40                     | mg/kg | 100 | <100           | <100           |
| TRH >C10-C16                    | mg/kg | 25  | <25            | <25            |
| TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25            | <25            |
| TRH >C16-C34 (F3)               | mg/kg | 90  | <90            | <90            |
| TRH >C34-C40 (F4)               | mg/kg | 120 | <120           | <120           |
| TRH C10-C36 Total               | mg/kg | 110 | <110           | <110           |
| TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210           | <210           |

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### PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 24/7/2020

|                                                                                                                            |             |     |                           | ı                         |
|----------------------------------------------------------------------------------------------------------------------------|-------------|-----|---------------------------|---------------------------|
|                                                                                                                            |             |     | BH6_0.1-0.2               | BH6_1.4-1.5               |
|                                                                                                                            |             |     | SOIL                      | SOIL                      |
|                                                                                                                            |             |     |                           |                           |
| PARAMETER                                                                                                                  | UOM         | LOR | 20/7/2020<br>SE209082.001 | 20/7/2020<br>SE209082.004 |
| Naphthalene                                                                                                                | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| 2-methylnaphthalene                                                                                                        | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| 1-methylnaphthalene                                                                                                        | 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                      |
|                                                                                                                            |             |     | -                         | <0.1                      |
| Anthracene                                                                                                                 | mg/kg       | 0.1 | <0.1                      | -                         |
| Fluoranthene                                                                                                               | mg/kg       | 0.1 | 0.2                       | <0.1                      |
| Pyrene                                                                                                                     | mg/kg       | 0.1 | 0.2                       | <0.1                      |
| Benzo(a)anthracene                                                                                                         | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Chrysene                                                                                                                   | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Benzo(b&j)fluoranthene                                                                                                     | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Benzo(k)fluoranthene                                                                                                       | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Benzo(a)pyrene                                                                                                             | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Indeno(1,2,3-cd)pyrene                                                                                                     | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Dibenzo(ah)anthracene                                                                                                      | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Benzo(ghi)perylene                                                                                                         | mg/kg       | 0.1 | <0.1                      | <0.1                      |
| Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2                      | <0.2                      |
| Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3                      | <0.3                      |
| Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2                      | <0.2                      |
| Total PAH (18)                                                                                                             | mg/kg       | 0.8 | <0.8                      | <0.8                      |
| Total PAH (NEPM/WHO 16)                                                                                                    | mg/kg       | 0.8 | <0.8                      | <0.8                      |

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# SGS

# **ANALYTICAL RESULTS**

### OC Pesticides in Soil [AN420] Tested: 24/7/2020

|                         |       |     | BH6_0.1-0.2  | BH6_1.4-1.5  |
|-------------------------|-------|-----|--------------|--------------|
|                         |       |     | SOIL         | SOIL         |
|                         |       |     | -            | -            |
|                         |       |     |              |              |
| PARAMETER               | UOM   | LOR | SE209082.001 | SE209082.004 |
| Hexachlorobenzene (HCB) | mg/kg | 0.1 | <0.1         | <0.1         |
| Alpha BHC               | mg/kg | 0.1 | <0.1         | <0.1         |
| Lindane                 | mg/kg | 0.1 | <0.1         | <0.1         |
| Heptachlor              | mg/kg | 0.1 | <0.1         | <0.1         |
| Aldrin                  | mg/kg | 0.1 | <0.1         | <0.1         |
| Beta BHC                | mg/kg | 0.1 | <0.1         | <0.1         |
| Delta BHC               | mg/kg | 0.1 | <0.1         | <0.1         |
| Heptachlor epoxide      | mg/kg | 0.1 | <0.1         | <0.1         |
| o,p'-DDE                | mg/kg | 0.1 | <0.1         | <0.1         |
| Alpha Endosulfan        | mg/kg | 0.2 | <0.2         | <0.2         |
| Gamma Chlordane         | mg/kg | 0.1 | <0.1         | <0.1         |
| Alpha Chlordane         | mg/kg | 0.1 | <0.1         | <0.1         |
| trans-Nonachlor         | mg/kg | 0.1 | <0.1         | <0.1         |
| p,p'-DDE                | mg/kg | 0.1 | <0.1         | <0.1         |
| Dieldrin                | mg/kg | 0.2 | <0.2         | <0.2         |
| Endrin                  | mg/kg | 0.2 | <0.2         | <0.2         |
| o,p'-DDD                | mg/kg | 0.1 | <0.1         | <0.1         |
| o,p'-DDT                | mg/kg | 0.1 | <0.1         | <0.1         |
| Beta Endosulfan         | mg/kg | 0.2 | <0.2         | <0.2         |
| p,p'-DDD                | mg/kg | 0.1 | <0.1         | <0.1         |
| p,p'-DDT                | mg/kg | 0.1 | <0.1         | <0.1         |
| Endosulfan sulphate     | mg/kg | 0.1 | <0.1         | <0.1         |
| Endrin Aldehyde         | mg/kg | 0.1 | <0.1         | <0.1         |
| Methoxychlor            | mg/kg | 0.1 | <0.1         | <0.1         |
| Endrin Ketone           | mg/kg | 0.1 | <0.1         | <0.1         |
| Isodrin                 | mg/kg | 0.1 | <0.1         | <0.1         |
| Mirex                   | mg/kg | 0.1 | <0.1         | <0.1         |
| Total CLP OC Pesticides | mg/kg | 1   | <1           | <1           |
|                         | 99    | · · | ·            | <u> </u>     |

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### OP Pesticides in Soil [AN420] Tested: 24/7/2020

|                                   |       |     | BH6_0.1-0.2    | BH6_1.4-1.5    |
|-----------------------------------|-------|-----|----------------|----------------|
|                                   |       |     | SOIL           | SOIL           |
|                                   |       |     | -<br>20/7/2020 | -<br>20/7/2020 |
| PARAMETER                         | UOM   | LOR | SE209082.001   | SE209082.004   |
| Dichlorvos                        | mg/kg | 0.5 | <0.5           | <0.5           |
| Dimethoate                        | mg/kg | 0.5 | <0.5           | <0.5           |
| Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5           | <0.5           |
| Fenitrothion                      | mg/kg | 0.2 | <0.2           | <0.2           |
| Malathion                         | mg/kg | 0.2 | <0.2           | <0.2           |
| Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2           | <0.2           |
| Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2           | <0.2           |
| Bromophos Ethyl                   | mg/kg | 0.2 | <0.2           | <0.2           |
| Methidathion                      | mg/kg | 0.5 | <0.5           | <0.5           |
| Ethion                            | mg/kg | 0.2 | <0.2           | <0.2           |
| Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2           | <0.2           |
| Total OP Pesticides*              | mg/kg | 1.7 | <1.7           | <1.7           |

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### PCBs in Soil [AN420] Tested: 24/7/2020

|                        |       |     | BH6_0.1-0.2               | BH6_1.4-1.5               |
|------------------------|-------|-----|---------------------------|---------------------------|
|                        |       |     | SOIL<br>-                 | SOIL<br>-                 |
| PARAMETER              | UOM   | LOR | 20/7/2020<br>SE209082.001 | 20/7/2020<br>SE209082.004 |
| Arochlor 1016          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1221          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1232          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1242          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1248          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1254          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1260          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1262          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Arochlor 1268          | mg/kg | 0.2 | <0.2                      | <0.2                      |
| Total PCBs (Arochlors) | mg/kg | 1   | <1                        | <1                        |

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### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 27/7/2020

|              |       |     | BH6_0.1-0.2    | BH6_1.4-1.5    |
|--------------|-------|-----|----------------|----------------|
|              |       |     | SOIL           | SOIL           |
|              |       |     | -<br>20/7/2020 | -<br>20/7/2020 |
| PARAMETER    | UOM   | LOR | SE209082.001   | SE209082.004   |
| Arsenic, As  | mg/kg | 1   | 4              | 1              |
| Cadmium, Cd  | mg/kg | 0.3 | <0.3           | <0.3           |
| Chromium, Cr | mg/kg | 0.5 | 12             | 2.5            |
| Copper, Cu   | mg/kg | 0.5 | 15             | 0.6            |
| Lead, Pb     | mg/kg | 1   | 23             | 2              |
| Nickel, Ni   | mg/kg | 0.5 | 9.9            | <0.5           |
| Zinc, Zn     | mg/kg | 2   | 45             | <2.0           |

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### Mercury in Soil [AN312] Tested: 27/7/2020

|           |       |      | BH6_0.1-0.2  | BH6_1.4-1.5  |
|-----------|-------|------|--------------|--------------|
|           |       |      | SOIL         | SOIL         |
|           |       |      |              | -            |
|           |       |      |              | 20/7/2020    |
| PARAMETER | UOM   | LOR  | SE209082.001 | SE209082.004 |
| Mercury   | mg/kg | 0.05 | <0.05        | <0.05        |

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### Moisture Content [AN002] Tested: 24/7/2020

|            |      |     | BH6_0.1-0.2  | BH6_1.4-1.5  |
|------------|------|-----|--------------|--------------|
|            |      |     | SOIL         | SOIL         |
|            |      |     |              |              |
|            |      |     | 20/7/2020    | 20/7/2020    |
| PARAMETER  | UOM  | LOR | SE209082.001 | SE209082.004 |
| % Moisture | %w/w | 1   | 14.5         | 5.5          |

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### Fibre Identification in soil [AN602] Tested: 29/7/2020

|                   |         |      | BH6_0.1-0.2  | BH6_1.4-1.5  |
|-------------------|---------|------|--------------|--------------|
|                   |         |      | SOIL         | SOIL         |
|                   |         |      |              |              |
|                   |         |      |              |              |
| PARAMETER         | UOM     | LOR  | SE209082.001 | SE209082.004 |
| Asbestos Detected | No unit | -    | No           | No           |
| Estimated Fibres* | %w/w    | 0.01 | <0.01        | <0.01        |

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# METHOD SUMMARY



METHOD -

METHODOLOGY SUMMARY

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

AN040

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

**AN312** 

Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500

AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.

AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.

AN403

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B

AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

AN420

SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

**AN433** 

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

**AN602** 

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

AN602

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

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FOOTNOTES SE209082 R0

### FOOTNOTES

NATA accreditation does not cover the performance of this service.

\*\* Indicative data, theoretical holding

time exceeded.

Not analysed.NVL Not validated.

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

UOM Unit of Measure.

LOR Limit of Reporting.

↑↓ Raised/lowered Limit of

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-qb/environment-health-and-safety">www.sgs.com.au/en-qb/environment-health-and-safety</a>.

This document is issued by the Company under its General Conditions of Service accessible at <a href="www.sgs.com/en/Terms-and-Conditions.aspx">www.sgs.com/en/Terms-and-Conditions.aspx</a>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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30/07/2020 Page 14 of 14



### **ANALYTICAL REPORT**

Email

Date Received





CLIENT DETAILS -

LABORATORY DETAILS

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

55 MILLER STREET

PYRMONT NSW 2009

61 2 95160722 (Not specified)

Email li.wei@eiaustralia.com.au

E24724.E02 2 Mandala Parade, Castle Hill Project

E24724.E02 Order Number

2 Samples

**Huong Crawford** Manager

SGS Alexandria Environmental Laboratory

Unit 16. 33 Maddox St Address

Alexandria NSW 2015

+61 2 8594 0400

23 Jul 2020

Telephone Facsimile +61 2 8594 0499

au.environmental.sydney@sgs.com

SGS Reference SE209082 R0

30 Jul 2020 Date Reported

COMMENTS

Telephone

Facsimile

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

SIGNATORIES

Bennet LO

Senior Organic Chemist/Metals Chemis

Kamrul AHSAN

Senior Chemist

Ly Kim HA

Organic Section Head

kmln

Yusuf KUTHPUDIN Asbestos Analyst

> SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

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Alexandria NSW 2015 Alexandria NSW 2015

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www.sgs.com.au

Member of the SGS Group



# SGS

# **ANALYTICAL REPORT**

| RESULTS -               | ition in soil       |        |                             |              |                                              | Method | AN602 |           |
|-------------------------|---------------------|--------|-----------------------------|--------------|----------------------------------------------|--------|-------|-----------|
| Laboratory<br>Reference | Client<br>Reference | Matrix | Sample<br>Description       | Date Sampled | Fibre Identification                         |        |       | Est.%w/w* |
| SE209082.001            | BH6_0.1-0.2         | Soil   | 181g<br>Clay,Sand,Rock<br>s | 20 Jul 2020  | No Asbestos Found<br>Organic Fibres Detected |        |       | <0.01     |
| SE209082.004            | BH6_1.4-1.5         | Soil   | 130g Sand                   | 20 Jul 2020  | No Asbestos Found                            |        |       | <0.01     |

30/07/2020 Page 2 of 3





### **METHOD SUMMARY**

METHOD -

METHODOLOGY SUMMARY

AN602

Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.

AN602

Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

AN602

AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states: "Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."

AN602

The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-

- (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):
- (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and
- (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

### FOOTNOTES -

Amosite - Brown Asbestos NA - Not Analysed
Chrysotile - White Asbestos LNR - Listed, Not Required

Crocidolite - Blue Asbestos \* - NATA accreditation does not cover the performance of this service .

Amphiboles - Amosite and/or Crocidolite \*\* - Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.

Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.

Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-gb/environment-health-and-safety">www.sgs.com.au/en-gb/environment-health-and-safety</a>.

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30/07/2020 Page 3 of 3



### **ANALYTICAL REPORT**





CLIENT DETAILS

LABORATORY DETAILS

Manager

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

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E24724.E02 2 Mandala Parade, Castle Hill Project SGS Reference SE208846A R0 E24724.E02 Order Number Date Received 21/7/2020

17 28/7/2020 Samples Date Reported

COMMENTS

Telephone

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

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Senior Organic Chemist/Metals Chemist

**Shane MCDERMOTT** 

Inorganic/Metals Chemist

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SE208846A R0

Soluble Anions (1:5) in Soil by Ion Chromatography [AN245] Tested: 24/7/2020

|           |       |      | BH3M_2.8-2.9  | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|-----------|-------|------|---------------|---------------|---------------|---------------|---------------|
|           |       |      | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|           |       |      |               |               |               |               | -             |
|           |       |      |               | 14/7/2020     |               |               | 16/7/2020     |
| PARAMETER | UOM   | LOR  | SE208846A.007 | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| Chloride  | mg/kg | 0.25 | 22            | 10            | 18            | 16            | 6.5           |
| Sulfate   | mg/kg | 5    | 92            | 64            | 110           | 130           | 83            |

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SE208846A R0

### Alkalinity in Soil [AN002/AN135] Tested: 23/7/2020

|                                         |       |     | BH3M_2.8-2.9  | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|-----------------------------------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|                                         |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|                                         |       |     |               |               |               |               |               |
|                                         |       |     |               | 14/7/2020     |               |               |               |
| PARAMETER                               | UOM   | LOR | SE208846A.007 | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| Bicarbonate Alkalinity as HCO3 in Soil* | mg/kg | 25  | 63            | 35            | 26            | 31            | 53            |
| Carbonate Alkalinity as CO3 in Soil*    | mg/kg | 25  | 140           | <25           | <25           | <25           | <25           |
| Hydroxide Alkalinity as OH in Soil*     | mg/kg | 25  | <25           | <25           | <25           | <25           | <25           |
| Total Alkalinity as CaCO3 in Soil*      | mg/kg | 25  | 280           | 28            | <25           | 25            | 44            |

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SE208846A R0

## pH in soil (1:5) [AN101] Tested: 24/7/2020

|           |          |     | BH3M_2.8-2.9  | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|-----------|----------|-----|---------------|---------------|---------------|---------------|---------------|
|           |          |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|           |          |     |               |               |               |               | -             |
|           |          |     |               | 14/7/2020     |               |               | 16/7/2020     |
| PARAMETER | UOM      | LOR | SE208846A.007 | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| рН        | pH Units | 0.1 | 9.4           | 6.1           | 4.6           | 4.7           | 5.5           |

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SE208846A R0

### Conductivity and TDS by Calculation - Soil [AN106] Tested: 24/7/2020

|                                                |       |     | BH3M_2.8-2.9  | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|------------------------------------------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|                                                |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|                                                |       |     |               |               |               |               |               |
|                                                |       |     |               | 14/7/2020     |               |               |               |
| PARAMETER                                      | UOM   | LOR | SE208846A.007 | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| Conductivity of Extract (1:5 dry sample basis) | μS/cm | 1   | 130           | 47            | 73            | 85            | 60            |

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### Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 24/7/2020

|                                    |          |      | BH3M_2.8-2.9   | BH4M_4.9-5.0   | BH2_1.9-2.0    | BH2_2.9-3.0    | BH4M_4.4-4.5   |
|------------------------------------|----------|------|----------------|----------------|----------------|----------------|----------------|
|                                    |          |      | SOIL           | SOIL           | SOIL           | SOIL           | SOIL           |
|                                    |          |      | -<br>13/7/2020 | -<br>14/7/2020 | -<br>16/7/2020 | -<br>16/7/2020 | -<br>16/7/2020 |
| PARAMETER                          | UOM      | LOR  | SE208846A.007  | SE208846A.011  | SE208846A.015  | SE208846A.016  | SE208846A.017  |
| Exchangeable Sodium, Na            | mg/kg    | 2    | 84             | 140            | 96             | 98             | 190            |
| Exchangeable Sodium, Na            | meq/100g | 0.01 | 0.37           | 0.63           | 0.42           | 0.42           | 0.81           |
| Exchangeable Sodium Percentage*    | %        | 0.1  | 2.2            | 27.3           | 11.7           | 3.4            | 27.5           |
| Exchangeable Potassium, K          | mg/kg    | 2    | 110            | 95             | 79             | 70             | 99             |
| Exchangeable Potassium, K          | meq/100g | 0.01 | 0.27           | 0.24           | 0.20           | 0.18           | 0.25           |
| Exchangeable Potassium Percentage* | %        | 0.1  | 1.6            | 10.6           | 5.6            | 1.4            | 8.6            |
| Exchangeable Calcium, Ca           | mg/kg    | 2    | 3200           | 120            | 380            | 2200           | 120            |
| Exchangeable Calcium, Ca           | meq/100g | 0.01 | 16             | 0.59           | 1.9            | 11             | 0.59           |
| Exchangeable Calcium Percentage*   | %        | 0.1  | 95.0           | 25.9           | 53.5           | 87.8           | 20.2           |
| Exchangeable Magnesium, Mg         | mg/kg    | 2    | 24             | 100            | 130            | 110            | 160            |
| Exchangeable Magnesium, Mg         | meq/100g | 0.02 | 0.20           | 0.83           | 1.0            | 0.93           | 1.3            |
| Exchangeable Magnesium Percentage* | %        | 0.1  | 1.2            | 36.1           | 29.2           | 7.4            | 43.6           |
| Cation Exchange Capacity           | meq/100g | 0.02 | 17             | 2.3            | 3.6            | 13             | 2.9            |

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SE208846A R0

### Soil Texture (AS4419) [AN051] Tested: 23/7/2020

|                         |         |     | BH3M_2.8-2.9    | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|-------------------------|---------|-----|-----------------|---------------|---------------|---------------|---------------|
|                         |         |     | SOIL            | SOIL          | SOIL          | SOIL          | SOIL          |
|                         |         |     |                 |               |               |               | -             |
|                         |         |     |                 | 14/7/2020     |               |               | 16/7/2020     |
| PARAMETER               | UOM     | LOR | SE208846A.007   | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| Texture Classification* | No unit | 1   | Sandy Clay Loam | Loamy Sand    | Sandy Clay    | Sandy Clay    | Loamy Sand    |

28/07/2020 Page 7 of 11





### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 23/7/2020

|               |       |     | BH3M_2.8-2.9  | BH4M_4.9-5.0  | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|---------------|-------|-----|---------------|---------------|---------------|---------------|---------------|
|               |       |     | SOIL          | SOIL          | SOIL          | SOIL          | SOIL          |
|               |       |     |               |               |               |               |               |
|               |       |     |               | 14/7/2020     |               |               |               |
| PARAMETER     | UOM   | LOR | SE208846A.007 | SE208846A.011 | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| Calcium, Ca   | mg/kg | 5   | 3400          | 66            | 1900          | 4400          | 1100          |
| Magnesium, Mg | mg/kg | 5   | 650           | 120           | 590           | 1300          | 350           |
| Sodium, Na    | mg/kg | 5   | 130           | 170           | 170           | 320           | 290           |
| Potassium, K  | mg/kg | 10  | 240           | 280           | 280           | 340           | 320           |
| Manganese, Mn | mg/kg | 1   | 47            | 5             | 51            | 110           | 13            |

28/07/2020 Page 8 of 11



SE208846A R0

### Moisture Content [AN002] Tested: 24/7/2020

|            |      |     | BH2_1.9-2.0   | BH2_2.9-3.0   | BH4M_4.4-4.5  |
|------------|------|-----|---------------|---------------|---------------|
|            |      |     | SOIL          | SOIL          | SOIL          |
|            |      |     |               |               |               |
|            |      |     |               |               | 16/7/2020     |
| PARAMETER  | UOM  | LOR | SE208846A.015 | SE208846A.016 | SE208846A.017 |
| % Moisture | %w/w | 1   | 14.6          | 14.7          | 10.1          |

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METHOD -

METHODOLOGY SUMMARY

AN002/AN135

Alkalinity (and forms of) by Titration: The sample is extracted 1 to 5 in deionised water and the extract titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135

**METHOD SUMMARY** 

AN002

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN040/AN320

A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.

**AN040** 

A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

AN051

A small sample of soil is kneaded with water and then pressed out into a ribbon. The behaviour of this ribbon is used to classify the soil into one of the texture classes in AS 4419.

**AN101** 

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is

AN106

calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or μS/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA

**AN122** 

Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meg/100g.

**AN122** 

The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100.

ESP can be used to categorise the sodicity of the soil as below:

ESP < 6% non-sodio ESP 6-15% sodic ESP >15% strongly sodic

Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-

**AN245** 

Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B

Page 10 of 11 28/07/2020





### FOOTNOTES

\* NATA accreditation does not cover the performance of this service.

\*\* Indicative data, theoretical holding

time exceeded.

Not analysed.NVL Not validated.

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

UOM Unit of Measure.

LOR Limit of Reporting.

↑↓ Raised/lowered Limit of

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

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If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

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Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/en-qb/environment-health-and-safety">www.sgs.com.au/en-qb/environment-health-and-safety</a>.

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## **ANALYTICAL REPORT**





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LABORATORY DETAILS

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Member of the SGS Group



VOCs in Water [AN433] Tested: 3/8/2020

|                                            | _            | _   | BH3M-a          | BH4M-a         | BH5M            | GWQD 1       | GWQR 1       |
|--------------------------------------------|--------------|-----|-----------------|----------------|-----------------|--------------|--------------|
|                                            |              |     | B113IM-a        | Di Him-a       | BIISM           | OWQD !       | OWGR 1       |
|                                            |              |     | WATER           | WATER          | WATER           | WATER        | WATER        |
|                                            |              |     |                 |                |                 |              |              |
| PARAMETER                                  | UOM          | LOR | SE209379.001    | SE209379.002   | SE209379.003    | SE209379.004 | SE209379.005 |
| Benzene                                    | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | <0.5         | <0.5         |
| Toluene                                    | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | <0.5         | <0.5         |
| Ethylbenzene                               | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | <0.5         | <0.5         |
| m/p-xylene                                 | μg/L         | 1   | <1              | <1             | <1              | <1           | <1           |
| o-xylene                                   | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | <0.5         | <0.5         |
| Total Xylenes                              | μg/L         | 1.5 | <1.5            | <1.5           | <1.5            | <1.5         | <1.5         |
| Total BTEX                                 | μg/L         | 3   | <3              | <3             | <3              | <3           | <3           |
| Naphthalene                                | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | <0.5         | <0.5         |
| Dichlorodifluoromethane (CFC-12)           | μg/L         | 5   | <5              | <5             | <5              | -            | -            |
| Chloromethane                              | μg/L         | 5   | <5              | <5             | <5              | -            | -            |
| Vinyl chloride (Chloroethene)              | μg/L         | 0.3 | <0.3            | <0.3           | <0.3            | -            | -            |
| Bromomethane                               | μg/L         | 10  | <10             | <10            | <10             | -            | -            |
| Chloroethane                               | μg/L<br>     | 5   | <5              | <5             | <5              | -            | -            |
| Trichlorofluoromethane                     | μg/L         | 1   | <1              | <1             | <1              | -            | -            |
| Acetone (2-propanone)                      | μg/L<br>     | 10  | <10             | <10            | <10             | -            | -            |
| lodomethane                                | μg/L<br>     | 5   | <5              | <5             | <5              | -            | -            |
| 1,1-dichloroethene                         | μg/L<br>     | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Acrylonitrile                              | μg/L<br>     | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Dichloromethane (Methylene chloride)       | μg/L<br>     | 5   | <5              | <5             | <5              | -            | -            |
| Allyl chloride                             | μg/L         | 2   | <2              | <2             | <2              | -            | -            |
| Carbon disulfide                           | μg/L         | 2   | <2              | <2             | <2              | -            | -            |
| trans-1,2-dichloroethene                   | μg/L<br>     | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| MtBE (Methyl-tert-butyl ether)             | μg/L         | 2   | <2              | <2             | <2              | -            | -            |
| 1,1-dichloroethane                         | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Vinyl acetate                              | µg/L         | 10  | <10             | <10            | <10             | -            | -            |
| MEK (2-butanone)                           | µg/L         | 10  | <10             | <10            | <10             |              | -            |
| cis-1,2-dichloroethene  Bromochloromethane | μg/L<br>μg/L | 0.5 | <0.5<br><0.5    | <0.5<br><0.5   | <0.5<br><0.5    | -            | -            |
| Chloroform (THM)                           | µg/L         | 0.5 |                 |                |                 | _            | _            |
| 2,2-dichloropropane                        | μg/L         | 0.5 | <b>9.2</b> <0.5 | <b>39</b> <0.5 | <b>1.7</b> <0.5 | <u>-</u>     | -            |
| 1,2-dichloroethane                         | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | _            | _            |
| 1,1,1-trichloroethane                      | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | _            | _            |
| 1,1-dichloropropene                        | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | _            | _            |
| Carbon tetrachloride                       | µg/L         | 0.5 | <0.5            | <0.5           | <0.5            | _            | _            |
| Dibromomethane                             | µg/L         | 0.5 | <0.5            | <0.5           | <0.5            | _            | _            |
| 1,2-dichloropropane                        | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Trichloroethene (Trichloroethylene,TCE)    | µg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 2-nitropropane                             | µg/L         | 100 | <100            | <100           | <100            | -            | -            |
| Bromodichloromethane (THM)                 | μg/L         | 0.5 | 2.3             | 6.6            | <0.5            | -            | -            |
| MIBK (4-methyl-2-pentanone)                | μg/L         | 5   | <5              | <5             | <5              | -            | -            |
| cis-1,3-dichloropropene                    | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| trans-1,3-dichloropropene                  | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 1,1,2-trichloroethane                      | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 1,3-dichloropropane                        | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Dibromochloromethane (THM)                 | μg/L         | 0.5 | 0.6             | 1.6            | <0.5            | -            | -            |
| 2-hexanone (MBK)                           | μg/L         | 5   | <5              | <5             | <5              | -            | -            |
| 1,2-dibromoethane (EDB)                    | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Tetrachloroethene (Perchloroethylene,PCE)  | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 1,1,1,2-tetrachloroethane                  | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Chlorobenzene                              | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| Bromoform (THM)                            | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| cis-1,4-dichloro-2-butene                  | μg/L         | 1   | <1              | <1             | <1              | -            | -            |
| Styrene (Vinyl benzene)                    | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 1,1,2,2-tetrachloroethane                  | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| 1,2,3-trichloropropane                     | μg/L         | 0.5 | <0.5            | <0.5           | <0.5            | -            | -            |
| trans-1,4-dichloro-2-butene                | μg/L         | 1   | <1              | <1             | <1              | -            | -            |
|                                            |              |     |                 |                |                 |              |              |

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VOCs in Water [AN433] Tested: 3/8/2020 (continued)

|                             |      |     | ВН3М-а       | BH4M-a       | BH5M         | GWQD 1       | GWQR 1       |
|-----------------------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|                             |      |     | WATER        | <br>  WATER  | <br>  WATER  | <br>  WATER  | <br>  WATER  |
|                             |      |     |              |              |              |              |              |
|                             |      |     |              |              |              |              |              |
| PARAMETER                   | UOM  | LOR | SE209379.001 | SE209379.002 | SE209379.003 | SE209379.004 | SE209379.005 |
| Isopropylbenzene (Cumene)   | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| Bromobenzene                | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| n-propylbenzene             | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 2-chlorotoluene             | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 4-chlorotoluene             | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,3,5-trimethylbenzene      | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| tert-butylbenzene           | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,2,4-trimethylbenzene      | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| sec-butylbenzene            | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,3-dichlorobenzene         | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,4-dichlorobenzene         | μg/L | 0.3 | <0.3         | <0.3         | <0.3         | -            | -            |
| p-isopropyltoluene          | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,2-dichlorobenzene         | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| n-butylbenzene              | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,2-dibromo-3-chloropropane | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,2,4-trichlorobenzene      | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| Hexachlorobutadiene         | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| 1,2,3-trichlorobenzene      | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | -            | -            |
| Total VOC                   | μg/L | 10  | 13           | 48           | <10          | -            | -            |

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VOCs in Water [AN433] Tested: 3/8/2020 (continued)

|                                                     |              |     | GWTB 1               | GWTS 1                |
|-----------------------------------------------------|--------------|-----|----------------------|-----------------------|
|                                                     |              |     | WATER                | WATER                 |
|                                                     |              |     |                      |                       |
| PARAMETER                                           | UOM          | LOR | 29/7/2020            | 29/7/2020             |
| PARAMETER<br>Benzene                                | μg/L         | 0.5 | SE209379.006<br><0.5 | SE209379.007<br>[99%] |
| Foluene                                             | µg/L         | 0.5 | <0.5                 | [99%]                 |
| Ethylbenzene                                        | μg/L         | 0.5 | <0.5                 | [99%]                 |
| n/p-xylene                                          | μg/L         | 1   | <1                   | [98%]                 |
| p-xylene                                            | μg/L         | 0.5 | <0.5                 | [99%]                 |
| Fotal Xylenes                                       | μg/L         | 1.5 | <1.5                 | -                     |
| Total Ayleries                                      | μg/L         | 3   | <3                   |                       |
|                                                     |              | 0.5 | <0.5                 |                       |
| Naphthalene                                         | μg/L         | 5   | -                    | -                     |
| Dichlorodifluoromethane (CFC-12)                    | μg/L         |     |                      |                       |
| Chloromethane                                       | μg/L         | 5   | -                    | -                     |
| /inyl chloride (Chloroethene)                       | μg/L         | 0.3 | -                    | -                     |
| Bromomethane                                        | μg/L         | 10  | -                    | -                     |
| Chloroethane                                        | μg/L         | 5   | -                    | -                     |
| Frichlorofluoromethane                              | μg/L         | 1   | -                    | =                     |
| Acetone (2-propanone)                               | μg/L         | 10  | -                    | -                     |
| odomethane                                          | μg/L         | 5   | -                    | -                     |
| 1,1-dichloroethene                                  | μg/L         | 0.5 | -                    | -                     |
| Acrylonitrile                                       | μg/L         | 0.5 | -                    | -                     |
| Dichloromethane (Methylene chloride)                | μg/L         | 5   | -                    | -                     |
| Allyl chloride                                      | µg/L         | 2   | -                    | -                     |
| Carbon disulfide                                    | μg/L         | 2   | -                    | =                     |
| rans-1,2-dichloroethene                             | μg/L         | 0.5 | -                    | -                     |
| MtBE (Methyl-tert-butyl ether)                      | μg/L         | 2   | -                    | -                     |
| 1,1-dichloroethane                                  | μg/L         | 0.5 | -                    | -                     |
| /inyl acetate                                       | μg/L         | 10  | -                    | -                     |
| MEK (2-butanone)                                    | μg/L         | 10  | -                    | -                     |
| cis-1,2-dichloroethene                              | μg/L         | 0.5 | -                    | -                     |
| Bromochloromethane                                  | μg/L         | 0.5 | -                    | -                     |
| Chloroform (THM)                                    | μg/L         | 0.5 | -                    | -                     |
| 2,2-dichloropropane                                 | μg/L         | 0.5 | -                    | -                     |
| 1,2-dichloroethane                                  | μg/L         | 0.5 | -                    | -                     |
| 1,1,1-trichloroethane                               | μg/L         | 0.5 | -                    | -                     |
| 1,1-dichloropropene                                 | μg/L         | 0.5 | -                    | -                     |
| Carbon tetrachloride                                | μg/L         | 0.5 | -                    | -                     |
| Dibromomethane                                      | μg/L         | 0.5 | -                    | -                     |
| 1,2-dichloropropane                                 | μg/L         | 0.5 | -                    | -                     |
| Frichloroethene (Trichloroethylene,TCE)             | μg/L         | 0.5 | -                    | -                     |
| 2-nitropropane                                      | μg/L         | 100 | -                    | -                     |
| Bromodichloromethane (THM)                          | µg/L         | 0.5 | -                    | -                     |
| MIBK (4-methyl-2-pentanone)                         | µg/L         | 5   | -                    |                       |
| cis-1,3-dichloropropene                             | μg/L         | 0.5 | -                    | -                     |
| rans-1,3-dichloropropene                            | µg/L         | 0.5 | -                    |                       |
| 1,1,2-trichloroethane                               | μg/L         | 0.5 | -                    |                       |
| 1,3-dichloropropane                                 | μg/L         | 0.5 | -                    |                       |
| Dibromochloromethane (THM)                          | μg/L         | 0.5 | -                    | -                     |
| 2-hexanone (MBK)                                    |              | 5   | -                    | -                     |
| 1,2-dibromoethane (EDB)                             | µg/L         | 0.5 | -                    | -                     |
|                                                     | µg/L         |     | -                    | -                     |
| Fetrachloroethene (Perchloroethylene,PCE)           | μg/L         | 0.5 |                      |                       |
| 1,1,1,2-tetrachloroethane                           | μg/L         | 0.5 | -                    | -                     |
| Chlorobenzene                                       | μg/L         | 0.5 | -                    | -                     |
| Bromoform (THM)                                     | μg/L         | 0.5 | -                    | -                     |
| cis-1,4-dichloro-2-butene                           | μg/L         | 1   | -                    | -                     |
| Styrene (Vinyl benzene)                             | μg/L         | 0.5 | -                    | =                     |
|                                                     |              |     |                      |                       |
| 1,1,2,2-tetrachloroethane<br>1,2,3-trichloropropane | μg/L<br>μg/L | 0.5 | -                    | -                     |

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VOCs in Water [AN433] Tested: 3/8/2020 (continued)

|                             |      |     | GWTB 1       | GWTS 1       |  |
|-----------------------------|------|-----|--------------|--------------|--|
|                             |      |     | WATER        | WATER        |  |
|                             |      |     |              |              |  |
|                             |      |     |              |              |  |
| PARAMETER                   | UOM  | LOR | SE209379.006 | SE209379.007 |  |
| Isopropylbenzene (Cumene)   | μg/L | 0.5 | -            | -            |  |
| Bromobenzene                | μg/L | 0.5 | -            | -            |  |
| n-propylbenzene             | μg/L | 0.5 | -            | -            |  |
| 2-chlorotoluene             | μg/L | 0.5 | -            | -            |  |
| 4-chlorotoluene             | μg/L | 0.5 | -            | -            |  |
| 1,3,5-trimethylbenzene      | μg/L | 0.5 | -            | -            |  |
| tert-butylbenzene           | μg/L | 0.5 | -            | -            |  |
| 1,2,4-trimethylbenzene      | μg/L | 0.5 | -            | -            |  |
| sec-butylbenzene            | μg/L | 0.5 | -            | -            |  |
| 1,3-dichlorobenzene         | μg/L | 0.5 | -            | -            |  |
| 1,4-dichlorobenzene         | μg/L | 0.3 | -            | -            |  |
| p-isopropyltoluene          | μg/L | 0.5 | -            | -            |  |
| 1,2-dichlorobenzene         | μg/L | 0.5 | -            | -            |  |
| n-butylbenzene              | μg/L | 0.5 | -            | -            |  |
| 1,2-dibromo-3-chloropropane | μg/L | 0.5 | -            | -            |  |
| 1,2,4-trichlorobenzene      | μg/L | 0.5 | -            | -            |  |
| Hexachlorobutadiene         | μg/L | 0.5 | -            | -            |  |
| 1,2,3-trichlorobenzene      | μg/L | 0.5 | -            | -            |  |
| Total VOC                   | μg/L | 10  | -            | -            |  |

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## Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 3/8/2020

|                            |      |     | _            |              |              |              |              |
|----------------------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|                            |      |     | BH3M-a       | BH4M-a       | BH5M         | GWQD 1       | GWQR 1       |
|                            |      |     |              |              |              |              |              |
|                            |      |     | WATER        | WATER        | WATER        | WATER        | WATER        |
|                            |      |     |              |              |              |              | }            |
|                            |      |     |              |              |              |              | -            |
|                            |      |     |              |              |              |              | 29/7/2020    |
| PARAMETER                  | UOM  | LOR | SE209379.001 | SE209379.002 | SE209379.003 | SE209379.004 | SE209379.005 |
| TRH C6-C9                  | μg/L | 40  | <40          | 46           | <40          | <40          | <40          |
| Benzene (F0)               | μg/L | 0.5 | <0.5         | <0.5         | <0.5         | <0.5         | <0.5         |
| TRH C6-C10                 | μg/L | 50  | <50          | 52           | <50          | <50          | <50          |
| TRH C6-C10 minus BTEX (F1) | μg/L | 50  | <50          | 52           | <50          | <50          | <50          |

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# TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 31/7/2020

|                                 |      |     | BH3M-a       | BH4M-a       | BH5M         | GWQD 1       | GWQR 1       |
|---------------------------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|                                 |      |     |              |              |              |              |              |
|                                 |      |     | WATER        | WATER        | WATER        | WATER        | WATER        |
|                                 |      |     |              |              |              |              |              |
|                                 |      |     |              |              |              |              |              |
| PARAMETER                       | UOM  | LOR | SE209379.001 | SE209379.002 | SE209379.003 | SE209379.004 | SE209379.005 |
| TRH C10-C14                     | μg/L | 50  | <50          | <50          | 76           | <50          | <50          |
| TRH C15-C28                     | μg/L | 200 | <200         | <200         | <200         | <200         | <200         |
| TRH C29-C36                     | μg/L | 200 | <200         | <200         | <200         | <200         | <200         |
| TRH C37-C40                     | μg/L | 200 | <200         | <200         | <200         | <200         | <200         |
| TRH >C10-C16                    | μg/L | 60  | <60          | <60          | 76           | <60          | <60          |
| TRH >C10-C16 - Naphthalene (F2) | μg/L | 60  | <60          | <60          | 76           | <60          | <60          |
| TRH >C16-C34 (F3)               | μg/L | 500 | <500         | <500         | <500         | <500         | <500         |
| TRH >C34-C40 (F4)               | μg/L | 500 | <500         | <500         | <500         | <500         | <500         |
| TRH C10-C40                     | μg/L | 320 | <320         | <320         | <320         | <320         | <320         |

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# PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 31/7/2020

|                        |      |     | BH3M-a       | BH4M-a       | BH5M         |
|------------------------|------|-----|--------------|--------------|--------------|
|                        |      |     | WATER        | WATER        | WATER        |
|                        |      |     |              |              |              |
|                        |      |     |              |              |              |
| PARAMETER              | UOM  | LOR | SE209379.001 | SE209379.002 | SE209379.003 |
| Naphthalene            | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| 2-methylnaphthalene    | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| 1-methylnaphthalene    | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Acenaphthylene         | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Acenaphthene           | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Fluorene               | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Phenanthrene           | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Anthracene             | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Fluoranthene           | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Pyrene                 | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(a)anthracene     | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Chrysene               | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(b&j)fluoranthene | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(k)fluoranthene   | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(a)pyrene         | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Indeno(1,2,3-cd)pyrene | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Dibenzo(ah)anthracene  | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Benzo(ghi)perylene     | μg/L | 0.1 | <0.1         | <0.1         | <0.1         |
| Total PAH (18)         | μg/L | 1   | <1           | <1           | <1           |
|                        |      |     |              |              | 1            |

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SE209379 R0

pH in water [AN101] Tested: 30/7/2020

|           |         |     | ВН3М-а       | BH4M-a       | BH5M         |
|-----------|---------|-----|--------------|--------------|--------------|
|           |         |     | WATER        | WATER        | WATER        |
|           |         |     |              |              | -            |
|           |         |     | 29/7/2020    | 29/7/2020    | 29/7/2020    |
| PARAMETER | UOM     | LOR | SE209379.001 | SE209379.002 | SE209379.003 |
| pH**      | No unit | -   | 5.1          | 6.3          | 4.6          |

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SE209379 R0

Conductivity and TDS by Calculation - Water [AN106] Tested: 30/7/2020

|                     |       |     | ВН3М-а       | ВН4М-а       | BH5M         |
|---------------------|-------|-----|--------------|--------------|--------------|
|                     |       |     | WATER        | WATER        | WATER        |
|                     |       |     |              |              | -            |
|                     |       |     |              |              | 29/7/2020    |
| PARAMETER           | UOM   | LOR | SE209379.001 | SE209379.002 | SE209379.003 |
| Conductivity @ 25 C | μS/cm | 2   | 1200         | 980          | 4100         |

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SE209379 R0

# Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 3/8/2020

|              |      |     | _            |              |              |              |              |
|--------------|------|-----|--------------|--------------|--------------|--------------|--------------|
|              |      |     | BH3M-a       | BH4M-a       | BH5M         | GWQD 1       | GWQR 1       |
|              |      |     |              |              |              |              |              |
|              |      |     | WATER        | WATER        | WATER        | WATER        | WATER        |
|              |      |     |              |              |              |              |              |
|              |      |     |              |              |              |              |              |
| PARAMETER    | UOM  | LOR | SE209379.001 | SE209379.002 | SE209379.003 | SE209379.004 | SE209379.005 |
| Arsenic, As  | μg/L | 1   | <1           | <1           | 1            | 1            | <1           |
| Cadmium, Cd  | μg/L | 0.1 | <0.1         | <0.1         | 0.2          | <0.1         | <0.1         |
| Chromium, Cr | μg/L | 1   | 1            | 170          | 3            | 1            | <1           |
| Copper, Cu   | μg/L | 1   | 22           | 24           | 23           | 26           | <1           |
| Lead, Pb     | μg/L | 1   | <1           | <1           | 11           | <1           | <1           |
| Nickel, Ni   | μg/L | 1   | 26           | 3            | 27           | 25           | <1           |
| Zinc, Zn     | μg/L | 5   | 74           | 21           | 180          | 71           | <5           |

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SE209379 R0

# Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 31/7/2020

|           |      |        | ВН3М-а       | ВН4М-а       | BH5M         | GWQD 1       | GWQR 1       |
|-----------|------|--------|--------------|--------------|--------------|--------------|--------------|
|           |      |        | WATER        | WATER        | WATER        | WATER        | WATER        |
|           |      |        |              |              |              |              | -            |
|           |      |        |              |              |              |              | 29/7/2020    |
| PARAMETER | UOM  | LOR    | SE209379.001 | SE209379.002 | SE209379.003 | SE209379.004 | SE209379.005 |
| Mercury   | mg/L | 0.0001 | <0.0001      | <0.0001      | <0.0001      | <0.0001      | <0.0001      |

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**AN101** 

**AN106** 

AN403

### **METHOD SUMMARY**

SE209379 R0

METHOD \_ METHODOLOGY SUMMARY \_

ΔN020 Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to

APHA3030B

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with

water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or μS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Total Dissolved Salts can be estimated from conductivity

using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. SGS use 0.6. Reference APHA

2510 B.

**AN106** Salinity may be calculated in terms of NaCl from the sample conductivity. This assumes all soluble salts present,

measured by the conductivity, are present as NaCl.

AN311(Perth)/AN312 Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration

standards. Reference APHA 3112/3500.

**AN318** Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA

200.8 (5.4).

AN403 Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the

> combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is

corrected for Naphthalene, the VOC data for Naphthalene is used.

**AN403** Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same

method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent

solvents

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This

method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B,

8015B.

**AN420** (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on

USEPA 3500C and 8270D).

**AN433** VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented

to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed

directly. References: USEPA 5030B, 8020A, 8260.

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**FOOTNOTES** SE209379 R0

FOOTNOTES

NATA accreditation does not cover Not analysed. NVL the performance of this service. Not validated. Indicative data, theoretical holding IS Insufficient sample for analysis.

time exceeded INR

Sample listed, but not received.

UOM Unit of Measure. Limit of Reporting. LOR Raised/lowered Limit of  $\uparrow \downarrow$ 

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sqs.com.au/en-qb/environment-health-and-safety

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# **ANALYTICAL REPORT**





CLIENT DETAILS -

LABORATORY DETAILS

Address

Li Wei Contact

EI AUSTRALIA Client **SUITE 6.01** Address

55 MILLER STREET **PYRMONT NSW 2009** 

Huong Crawford Manager Laboratory

SGS Alexandria Environmental

Unit 16, 33 Maddox St Alexandria NSW 2015

61 2 95160722 +61 2 8594 0400 Telephone Telephone Facsimile

(Not specified) Facsimile +61 2 8594 0499 li.wei@eiaustralia.com.au Email au.environmental.sydney@sgs.com

Project E24724.E02 2 mandala pole, castle hill SGS Reference SE210081 R1 E24724.E02 18/8/2020 Order Number Date Received

20/8/2020 Samples Date Reported

COMMENTS

Email

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

This report cancels and supersedes the report No.SE210081 R0 dated 19th August 2020 issued by SGS Environment, Health and Safety due to amended sample id.

SIGNATORIES

**Dong LIANG** 

Metals/Inorganics Team Leader





# Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 19/8/2020

|              |      |     | BH4M-a         |
|--------------|------|-----|----------------|
|              |      |     | WATER          |
|              |      |     | -<br>18/8/2020 |
| PARAMETER    | UOM  | LOR | SE210081.001   |
| Arsenic, As  | μg/L | 1   | 2              |
| Cadmium, Cd  | μg/L | 0.1 | 0.2            |
| Chromium, Cr | μg/L | 1   | 1              |
| Copper, Cu   | μg/L | 1   | 22             |
| Lead, Pb     | μg/L | 1   | 30             |
| Nickel, Ni   | μg/L | 1   | 38             |
| Zinc, Zn     | μg/L | 5   | 240            |

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SE210081 R1

# Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 19/8/2020

|           |      |        | BH4M-a       |
|-----------|------|--------|--------------|
|           |      |        | WATER        |
|           |      |        | •            |
|           |      |        | 18/8/2020    |
| PARAMETER | UOM  | LOR    | SE210081.001 |
| Mercury   | mg/L | 0.0001 | <0.0001      |

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### **METHOD SUMMARY**

SE210081 R1

METHOD -

METHODOLOGY SUMMARY =

AN020

Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to

AN311(Perth)/AN312 Mercury

Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration

standards. Reference APHA 3112/3500.

AN318

Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA

200.8 (5.4).

### FOOTNOTES

\* NATA accreditation does not cover the performance of this service.

Indicative data, theoretical holding

Not analysed.NVL Not validated.

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

UOM Unit of Measure.
LOR Limit of Reporting.

↑
 Raised/lowered Limit of

Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

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Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here; www.sgs.com.au/en-gb/environment-health-and-safety.

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**Envirolab Services Pty Ltd** 

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# **CERTIFICATE OF ANALYSIS 248038**

| Client Details |                                                  |
|----------------|--------------------------------------------------|
| Client         | El Australia                                     |
| Attention      | Lab Email                                        |
| Address        | Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009 |

| Sample Details                       |                         |
|--------------------------------------|-------------------------|
| Your Reference                       | E24729.E02, Castle Hill |
| Number of Samples                    | 1 Water                 |
| Date samples received                | 30/07/2020              |
| Date completed instructions received | 30/07/2020              |

# **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           | 06/08/2020                                                        |  |
| Date of Issue                       | 04/08/2020                                                        |  |
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| Accredited for compliance with ISO/ | IEC 17025 - Testing. Tests not covered by NATA are denoted with * |  |

TECHNICAL COMPETENCE

Results Approved By

Dragana Tomas, Senior Chemist Loren Bardwell, Senior Chemist **Authorised By** 

Nancy Zhang, Laboratory Manager

| vTRH(C6-C10)/BTEXN in Water                         |       |            |
|-----------------------------------------------------|-------|------------|
| Our Reference                                       |       | 248038-1   |
| Your Reference                                      | UNITS | GWQT1      |
| Date Sampled                                        |       | 29/07/2020 |
| Type of sample                                      |       | Water      |
| Date extracted                                      | -     | 31/07/2020 |
| Date analysed                                       | -     | 31/07/2020 |
| TRH C <sub>6</sub> - C <sub>9</sub>                 | μg/L  | 15         |
| TRH C <sub>6</sub> - C <sub>10</sub>                | μg/L  | 15         |
| TRH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1) | μg/L  | 15         |
| Benzene                                             | μg/L  | <1         |
| Toluene                                             | μg/L  | <1         |
| Ethylbenzene                                        | μg/L  | <1         |
| m+p-xylene                                          | μg/L  | <2         |
| o-xylene                                            | μg/L  | <1         |
| Naphthalene                                         | μg/L  | <1         |
| Surrogate Dibromofluoromethane                      | %     | 112        |
| Surrogate toluene-d8                                | %     | 93         |
| Surrogate 4-BFB                                     | %     | 87         |

| svTRH (C10-C40) in Water                                     |       |            |
|--------------------------------------------------------------|-------|------------|
| Our Reference                                                |       | 248038-1   |
| Your Reference                                               | UNITS | GWQT1      |
| Date Sampled                                                 |       | 29/07/2020 |
| Type of sample                                               |       | Water      |
| Date extracted                                               | -     | 31/07/2020 |
| Date analysed                                                | -     | 01/08/2020 |
| TRH C <sub>10</sub> - C <sub>14</sub>                        | μg/L  | <50        |
| TRH C <sub>15</sub> - C <sub>28</sub>                        | μg/L  | <100       |
| TRH C <sub>29</sub> - C <sub>36</sub>                        | μg/L  | <100       |
| TRH >C <sub>10</sub> - C <sub>16</sub>                       | μg/L  | <50        |
| TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2) | μg/L  | <50        |
| TRH >C <sub>16</sub> - C <sub>34</sub>                       | μg/L  | <100       |
| TRH >C <sub>34</sub> - C <sub>40</sub>                       | μg/L  | <100       |
| Surrogate o-Terphenyl                                        | %     | 98         |

| HM in water - dissolved |       |            |
|-------------------------|-------|------------|
| Our Reference           |       | 248038-1   |
| Your Reference          | UNITS | GWQT1      |
| Date Sampled            |       | 29/07/2020 |
| Type of sample          |       | Water      |
| Date prepared           | -     | 31/07/2020 |
| Date analysed           | -     | 31/07/2020 |
| Arsenic-Dissolved       | μg/L  | <1         |
| Cadmium-Dissolved       | μg/L  | 0.2        |
| Chromium-Dissolved      | μg/L  | 1          |
| Copper-Dissolved        | μg/L  | 7          |
| Lead-Dissolved          | μg/L  | <1         |
| Mercury-Dissolved       | μg/L  | <0.05      |
| Nickel-Dissolved        | μg/L  | 24         |
| Zinc-Dissolved          | μg/L  | 100        |

| Method ID  | Methodology Summary                                                                                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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-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.                                |

Envirolab Reference: 248038 Page | 5 of 10

Revision No: R00

| QUALITY CONTI                        | ROL: vTRH( | C6-C10)/E | BTEXN in Water |            |   | Du         | plicate    |     | Spike Re   | covery % |
|--------------------------------------|------------|-----------|----------------|------------|---|------------|------------|-----|------------|----------|
| Test Description                     | Units      | PQL       | Method         | Blank      | # | Base       | Dup.       | RPD | LCS-W3     | [NT]     |
| Date extracted                       | -          |           |                | 31/07/2020 | 1 | 31/07/2020 | 31/07/2020 |     | 31/07/2020 |          |
| Date analysed                        | -          |           |                | 31/07/2020 | 1 | 31/07/2020 | 31/07/2020 |     | 31/07/2020 |          |
| TRH C <sub>6</sub> - C <sub>9</sub>  | μg/L       | 10        | Org-023        | <10        | 1 | 15         | 12         | 22  | 108        |          |
| TRH C <sub>6</sub> - C <sub>10</sub> | μg/L       | 10        | Org-023        | <10        | 1 | 15         | 12         | 22  | 108        |          |
| Benzene                              | μg/L       | 1         | Org-023        | <1         | 1 | <1         | <1         | 0   | 106        |          |
| Toluene                              | μg/L       | 1         | Org-023        | <1         | 1 | <1         | <1         | 0   | 97         |          |
| Ethylbenzene                         | μg/L       | 1         | Org-023        | <1         | 1 | <1         | <1         | 0   | 106        |          |
| m+p-xylene                           | μg/L       | 2         | Org-023        | <2         | 1 | <2         | <2         | 0   | 115        |          |
| o-xylene                             | μg/L       | 1         | Org-023        | <1         | 1 | <1         | <1         | 0   | 116        |          |
| Naphthalene                          | μg/L       | 1         | Org-023        | <1         | 1 | <1         | <1         | 0   | [NT]       |          |
| Surrogate Dibromofluoromethane       | %          |           | Org-023        | 113        | 1 | 112        | 114        | 2   | 97         |          |
| Surrogate toluene-d8                 | %          |           | Org-023        | 93         | 1 | 93         | 93         | 0   | 92         |          |
| Surrogate 4-BFB                      | %          |           | Org-023        | 86         | 1 | 87         | 87         | 0   | 111        |          |

| QUALITY CONTROL: svTRH (C10-C40) in Water |       |     |         |            |   | Du         |            | Spike Recovery % |            |      |
|-------------------------------------------|-------|-----|---------|------------|---|------------|------------|------------------|------------|------|
| Test Description                          | Units | PQL | Method  | Blank      | # | Base       | Dup.       | RPD              | LCS-W1     | [NT] |
| Date extracted                            | -     |     |         | 31/07/2020 | 1 | 31/07/2020 | 31/07/2020 |                  | 31/07/2020 |      |
| Date analysed                             | -     |     |         | 31/07/2020 | 1 | 01/08/2020 | 01/08/2020 |                  | 31/07/2020 |      |
| TRH C <sub>10</sub> - C <sub>14</sub>     | μg/L  | 50  | Org-020 | <50        | 1 | <50        | <50        | 0                | 80         |      |
| TRH C <sub>15</sub> - C <sub>28</sub>     | μg/L  | 100 | Org-020 | <100       | 1 | <100       | <100       | 0                | 70         |      |
| TRH C <sub>29</sub> - C <sub>36</sub>     | μg/L  | 100 | Org-020 | <100       | 1 | <100       | <100       | 0                | 77         |      |
| TRH >C <sub>10</sub> - C <sub>16</sub>    | μg/L  | 50  | Org-020 | <50        | 1 | <50        | 50         | 0                | 80         |      |
| TRH >C <sub>16</sub> - C <sub>34</sub>    | μg/L  | 100 | Org-020 | <100       | 1 | <100       | <100       | 0                | 70         |      |
| TRH >C <sub>34</sub> - C <sub>40</sub>    | μg/L  | 100 | Org-020 | <100       | 1 | <100       | <100       | 0                | 77         |      |
| Surrogate o-Terphenyl                     | %     |     | Org-020 | 90         | 1 | 98         | 103        | 5                | 85         |      |

| QUALITY CC         |       | Duplicate |            |            | Spike Recovery % |      |      |      |            |      |
|--------------------|-------|-----------|------------|------------|------------------|------|------|------|------------|------|
| Test Description   | Units | PQL       | Method     | Blank      | #                | Base | Dup. | RPD  | LCS-W3     | [NT] |
| Date prepared      | -     |           |            | 31/07/2020 | [NT]             |      | [NT] | [NT] | 31/07/2020 |      |
| Date analysed      | -     |           |            | 31/07/2020 | [NT]             |      | [NT] | [NT] | 31/07/2020 |      |
| Arsenic-Dissolved  | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 92         |      |
| Cadmium-Dissolved  | μg/L  | 0.1       | Metals-022 | <0.1       | [NT]             |      | [NT] | [NT] | 98         |      |
| Chromium-Dissolved | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 101        |      |
| Copper-Dissolved   | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 102        |      |
| Lead-Dissolved     | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 103        |      |
| Mercury-Dissolved  | μg/L  | 0.05      | Metals-021 | <0.05      | [NT]             |      | [NT] | [NT] | 105        |      |
| Nickel-Dissolved   | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 93         |      |
| Zinc-Dissolved     | μg/L  | 1         | Metals-022 | <1         | [NT]             |      | [NT] | [NT] | 97         |      |

| Result Definiti | ons                                       |
|-----------------|-------------------------------------------|
| 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                              |

| <b>Quality Control</b>             | ol 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<br>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.

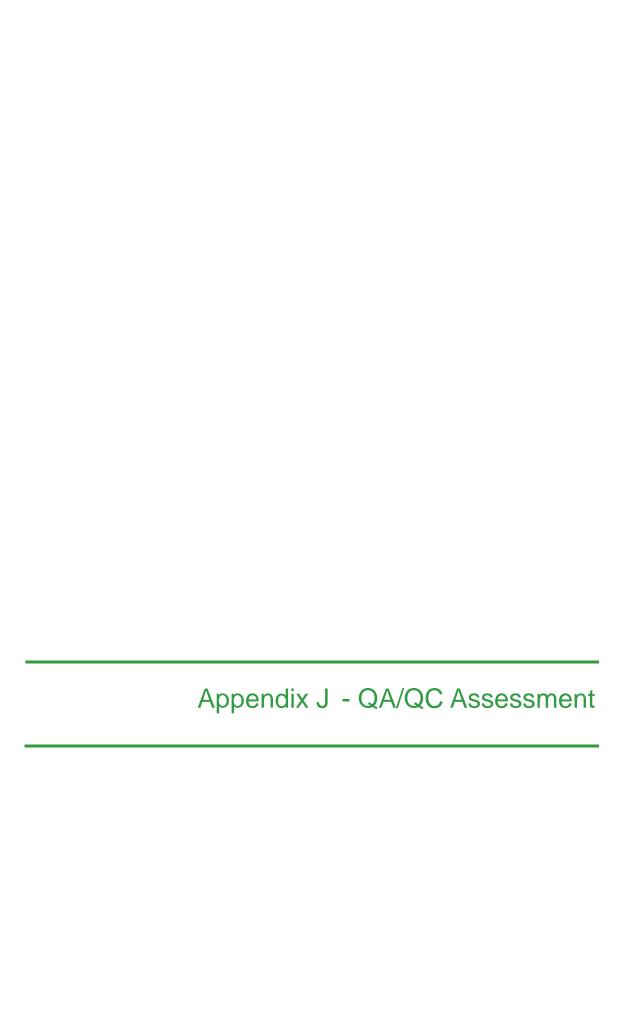
When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

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.



### J.1 Introduction

For the purpose of assessing the quality of data presented in this report, El collected field QC samples for analysis. The primary laboratory, SGS Australia Pty Ltd (SGS), and secondary laboratory, Envirolab Services Pty Ltd (Envirolab), also prepared and analysed internal QC samples. Details of the field and laboratory QC samples, with the allowable data acceptance ranges are presented in **Table J-1**.

**Table J.1 Sampling Data Quality Indicators** 

| QA/QC Measures                                                                            | Data Quality Indicators                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| <b>Precision</b> – A quantitative measure of the variability (or reproducibility) of data | Data precision would be assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Data precision would be deemed acceptable if RPDs are found to be less than 30%. RPDs that exceed this range may be considered acceptable where:              |  |  |  |  |  |
|                                                                                           | <ul><li>Results are less than 10 times the limits of reporting (LOR);</li></ul>                                                                                                                                                                                                                                                 |  |  |  |  |  |
|                                                                                           | <ul><li>Results are less than 20 times the LOR and the RPD is less than 50%; or</li></ul>                                                                                                                                                                                                                                       |  |  |  |  |  |
|                                                                                           | Heterogeneous materials or volatile compounds are encountered.                                                                                                                                                                                                                                                                  |  |  |  |  |  |
| Accuracy – A quantitative                                                                 | Data accuracy would be assessed through the analysis of:                                                                                                                                                                                                                                                                        |  |  |  |  |  |
| measure of the closeness of reported data to the "true"                                   | <ul> <li>Method blanks, which are analysed for the analytes targeted in the<br/>primary samples;</li> </ul>                                                                                                                                                                                                                     |  |  |  |  |  |
| value                                                                                     | <ul> <li>Matrix spike and matrix spike duplicate sample sets;</li> </ul>                                                                                                                                                                                                                                                        |  |  |  |  |  |
|                                                                                           | <ul><li>Laboratory control samples; and</li></ul>                                                                                                                                                                                                                                                                               |  |  |  |  |  |
|                                                                                           | <ul> <li>Calibration of instruments against known standards.</li> </ul>                                                                                                                                                                                                                                                         |  |  |  |  |  |
| Representativeness – The confidence (expressed qualitatively) that data are               | To ensure the data produced by the laboratory is representative of conditions encountered in the field, the laboratory would carry out the following:                                                                                                                                                                           |  |  |  |  |  |
| representative of each medium present onsite                                              | <ul> <li>Blank samples will be run in parallel with field samples to confirm there<br/>are no unacceptable instances of laboratory artefacts;</li> </ul>                                                                                                                                                                        |  |  |  |  |  |
|                                                                                           | <ul> <li>Review of relative percentage differences (RPD) values for field and<br/>laboratory duplicates to provide an indication that the samples are<br/>generally homogeneous, with no unacceptable instances of significant<br/>sample matrix heterogeneities; and</li> </ul>                                                |  |  |  |  |  |
|                                                                                           | <ul> <li>The appropriateness of collection methodologies, handling, storage and<br/>preservation techniques will be assessed to ensure/confirm there was<br/>minimal opportunity for sample interference or degradation (i.e. volatile<br/>loss during transport due to incorrect preservation / transport methods).</li> </ul> |  |  |  |  |  |
| Completeness – A measure of the amount of useable data                                    | Analytical data sets acquired during the assessment will be evaluated as complete, upon confirmation that:                                                                                                                                                                                                                      |  |  |  |  |  |
| from a data collection activity                                                           | <ul> <li>Standard operating procedures (SOPs) for sampling protocols were<br/>adhered to; and</li> </ul>                                                                                                                                                                                                                        |  |  |  |  |  |
|                                                                                           | <ul> <li>Copies of all COC documentation are presented, reviewed and found to<br/>be properly completed.</li> </ul>                                                                                                                                                                                                             |  |  |  |  |  |
|                                                                                           | It can therefore be considered whether the proportion of "useable data" generated in the data collection activities is sufficient for the purposes of the land use assessment.                                                                                                                                                  |  |  |  |  |  |



# Comparability – The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event Given that a reported data set can comprise several data sets from separate sampling episodes, issues of comparability between data sets are reduced through adherence to SOPs and regulator-endorsed or published guidelines and standards on each data gathering activity. In addition the data will be collected by experienced samplers and NATA-accredited laboratory methodologies will be employed in all laboratory testing programs.

### J.1.1 Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C<sub>O</sub> = Concentration obtained for the primary sample; and

C<sub>R</sub> = Concentration obtained for the blind replicate or split duplicate sample.

### J.2 Field QA/QC Data Evaluation

The field quality assurance/quality control (QA/QC) soil samples collected during the investigations were as follows:

- Blind field duplicates (i.e. Intra-laboratory duplicates)
- Inter-laboratory duplicates
- Trip blanks
- Trip spikes
- Rinsate blank

Analytical results for tested soil and groundwater QA/QC samples, including calculated RPD values between primary and duplicate samples, are presented in **Table J-2** in **Appendix B**.

### J.2.1 Soil Investigation

### J.2.1.1 Blind Field Duplicates

Two blind field duplicate (BFD) soil samples were collected as follows:

- Sample QD1 was collected from the primary sample TP8\_0.1-0.2 on 8 July 2020; and
- Sample QD2 was collected from the primary sample TP17\_0.1-0.2 on 8 July 2020;

The preparation of the BFD sample involved the collection of a bulk quantity of soil from the same sampling point without mixing, before dividing the material into identical sampling vessels. The duplicate sample was then presented blind to the primary laboratory (SGS) to avoid any potential analytical bias. BFD soil samples were analysed for TRHs, BTEX, and selected metals. Calculated RPD values were found to be within the Data Acceptance Criteria.



### J.2.1.2 Inter-Laboratory Duplicate

Two inter-laboratory duplicate (ILD) soil samples were collected as follows:

- Sample QT1 was collected from the primary sample TP8\_0.1-0.2 on 8 July 2020; and
- Sample QT2 was collected from the primary sample TP17\_0.1-0.2 on 8 July 2020.

The preparation of the ILD sample was identical to the BFD sample, as described above, and was analysed for TRHs, BTEX and selected metals by the secondary laboratory (Envirolab).

Calculated RPD values were found to be within the Data Acceptance Criteria, with the exception of chromium, copper, lead, nickel and zinc; however, this exceedance of the DQIs has no impact on the conclusions and recommendations provided.

### J.2.2 Groundwater Investigation

### J.2.2.1 Blind Field Duplicates

One blind field duplicate (BFD) groundwater sample was collected as follows:

Sample GWQD1 was collected from the primary sample BH3M-a on 29 July 2020;

The duplicate sample was presented blind to the primary laboratory (SGS) to avoid any potential analytical bias. BFD groundwater samples were analysed for TRHs, BTEX, and selected metals. Calculated RPD values were found to be within the Data Acceptance Criteria.

### J.2.2.2 Inter-Laboratory Duplicate

Sample GWQT1 was collected as an inter-laboratory duplicate (ILD) of the primary sample BH3M-a on 29 July 2020. It was analysed for TRHs, BTEX and selected metals by the secondary laboratory (Envirolab). Calculated RPD values were found to be within the Data Acceptance Criteria, with the exception of copper; however, this exceedance of the DQIs has no impact on the conclusions and recommendations provided.

### J.2.2.3 Trip Blank

Two trip blank samples were prepared and analysed by the primary laboratory for BTEX. Analytical results for the samples were all below the corresponding laboratory LOR, indicating that ideal sample transport and handling conditions were achieved (i.e. there was no cross-contamination during sample transport and handling).

### J.2.2.4 Trip Spike

Two trip spike samples were prepared and analysed by the primary laboratory for BTEX. Analyte recoveries for these samples were 87-99%, which complied with the DQI. It was therefore concluded that satisfactory sample transport and handling conditions were achieved (i.e. there was negligible loss of volatiles, and by default semi-volatiles, during sample transport and handling).

### J.2.2.5 Rinsate Blank

Two rinsate blank samples were submitted to the primary laboratory for TRHs, BTEX, and selected metals analyses. Analytical results were reported below the laboratory LOR.

### J.2.3 Assessment of Field QA/QC Data

All samples were classified in the field with respect to soil/fill characteristics and any observable signs of contamination based on visual and odour assessment, in regards to soil and groundwater.



All samples, including field QC samples, were transported to the primary and secondary laboratories under strict Chain-of-Custody conditions and appropriate copies of relevant documentation were included in the respective reports.

The overall completeness of documentation produced under the field program of the subject assessment was considered to be adequate for the purposes of drawing valid conclusions regarding the environmental condition of the site.

Based on the results of the field QA/QC data EI considered the field QA/QC programme carried out during the investigation to be appropriate and the results to be acceptable.

# J.3 Laboratory QA/QC

### J.3.1 Laboratory Accreditation

To undertake all analytical testing, EI commissioned SGS as the primary laboratory and Envirolab as the secondary laboratory. SGS and Envirolab, both established analytical laboratories which operate in accordance with the guidelines set out in ISO/IEC Guide 25 "General requirements for the competence of calibration and testing laboratories", conducted all respective analyses using National Association Testing Authorities (NATA)-registered procedures.

In relation to contingencies, should the pre-determined DQOs not be achieved, in accordance with each laboratory's QC policy (**Appendix K**), respective tests would be accordingly repeated. Should the results again fall outside the DQOs, then sample heterogeneity may be assumed and written comment will be provided to this effect on the final laboratory certificate. The laboratory QA/QC reports are included in **Appendix K**.

### J.3.2 Sample Holding Times

Sample holding times were generally within the laboratory DQOs, which were consistent with standard environmental protocols as tabulated in **Appendix K**, **Tables QC1** and **QC2**.

## J.3.3 Test Methods and Practical Quantitation Limits (PQLs)

Practical Quantitation Limits for all tested parameters during the assessment of soils and groundwater are presented in **Appendix K**, **Tables QC3** and **QC4**.

### J.3.4 Method Blanks

Concentrations of all parameters in method blanks during the assessment were below the laboratory PQLs and were therefore within the DAC.

### J.3.5 Laboratory Duplicate Samples

The Laboratory Control Samples (LCS) for the analysis batches showed calculated RPDs that were within acceptable ranges and conformed to the DAC, with the exception of copper, nickel and zinc in one soil sample and chromium in two soil samples due to sample heterogeneity.

### J.3.6 Laboratory Control Samples

The Laboratory Control Samples for the analysis batches were within acceptable ranges and conformed to the DAC.

### J.3.7 Matrix Spikes

Matrix spikes for the respective sample batches were within acceptable ranges and conformed to the DAC, with the exception of zinc and lead in two soil samples, chromium and copper in one soil sample, and calcium, magnesium and sodium in one soil sample due to matrix interference.



# J.3.8 Surrogate

Recovery results for surrogate samples conformed to the DAC, with the exception of VOCs in two soil samples. However, at least 2 of 3 surrogates are within acceptance criteria.

# J.3.9 Concluding Remark

Based on the laboratory QA/QC results EI considers that the data confirms that although a small number of discrepancies were identified, the analytical results for the various phases of laboratory testing were valid and useable for interpretation purposes.



Appendix K - Laboratory QA/AC Policies and DQOs







# STATEMENT OF QA/QC **PERFORMANCE**

CLIENT DETAILS LABORATORY DETAILS

Li Wei **Huong Crawford** Manager Contact

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**PYRMONT NSW 2009** 

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E24724.E02 2 Mandala Parade, Castle Hill SE208655 R0 SGS Reference Project E24724.E02

13 Jul 2020 Order Number Date Received 20 Jul 2020 Samples Date Reported

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

VOC's in Soil

Extraction Date VOCs in Water 1 item

Volatile Petroleum Hydrocarbons in Water 1 item

Duplicate Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES 3 items

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Matrix Spike 1 item

> Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES 1 item

VOC's in Soil 1 item

SAMPLE SUMMARY

Samples clearly labelled Yes Complete documentation received Yes Sample container provider SGS Sample cooling method Ice Bricks Samples received in correct containers Yes Sample counts by matrix 31 Soil 1 Water 13/7/2020 Date documentation received Type of documentation received COC Samples received in good order Samples received without headspace Yes Yes Sample temperature upon receipt 5.7°C Sufficient sample for analysis Yes Standard Turnaround time requested

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www.sgs.com.au

1 item

Member of the SGS Group

Method: ME-(AU)-[ENV]AN311(Perth)/AN312



### **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### Fibre Identification in soil Method: ME-(AU)-[ENV]AN602

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204569 | 08 Jul 2020 | 13 Jul 2020 | 08 Jul 2021    | 17 Jul 2020 | 08 Jul 2021  | 20 Jul 2020 |

### Mercury (dissolved) in Water

 Sample Name
 Sample No.
 QC Ref
 Sampled
 Received
 Extraction Due
 Extracted
 Analysis Due
 Analysed

 QR1
 SE208655.028
 LB204300
 08 Jul 2020
 13 Jul 2020
 05 Aug 2020
 15 Jul 2020
 05 Aug 2020
 15 Jul 2020

### Mercury in Soil Method: ME-(AU)-[ENV]AN312

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204384 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### Mercury in Soil (continued) Method: ME-(AU)-[ENV]AN312

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| QD2         | SE208655.027 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2 | SE208655.031 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8 | SE208655.032 | LB204386 | 08 Jul 2020 | 13 Jul 2020 | 05 Aug 2020    | 15 Jul 2020 | 05 Aug 2020  | 20 Jul 2020 |

### Moisture Content Method: ME-(AU)-[ENV]AN002

| Osmanla Nama | OI- N        | 00 P-f   | 0           | Describerat | Futuration Bu  | Fortun et e el | Analysis Bur | Anabasal    |
|--------------|--------------|----------|-------------|-------------|----------------|----------------|--------------|-------------|
| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted      | Analysis Due | Analysed    |
| TP7_0.1-0.2  | SE208655.001 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204345 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 17 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| QTB1         | SE208655.029 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204346 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020    | 20 Jul 2020  | 20 Jul 2020 |
|              |              |          |             |             |                |                |              |             |

# OC Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Anaiysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### OC Pesticides in Soil (continued)

### Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP18_1.8-1.9 | SE208655.023 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

### OP Pesticides in Soil

### Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

### Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

### Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP16_0.1-0.2 | SE208655.020 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

### PCBs in Soil

### Method: ME-(AU)-[ENV]AN420

| PPT_0.1-0.2   SE2086S0.01   LB20442   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 1.3-1.4   SE2086S.02   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 8.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.03   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.01   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27 PT 9.0-1-0.2   SE2086S.01   LB20432   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   27    |              |              |          |             |             |                |             |              |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| PFT_1.3-1.4   SE208655.002   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   178 0.1-0.2   SE208655.003   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   178 0.9-1.0   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 0.1-0.2   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 0.1-0.2   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 0.1-0.2   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 0.1-0.2   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 11.0-0.0   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 11.0-0.0   SE20865.005   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 12.0-0.0   SE20865.001   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 12.0-0.0   SE20865.001   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 12.1-1.0   SE20865.011   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 13.1-1.2   SE20865.011   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 13.0-2   SE20865.015   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 13.0-2   SE20865.015   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 13.0-2   SE20865.015   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   179 14.0-1   SE20865.017   LB204343   08 Jul 2020   13 Jul 2020   22 Ju   | Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
| PPB_0.1-0.2   SE20865.003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TP7_0.1-0.2  | SE208655.001 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| PPB_0.9-1.0   SE20865.004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TP7_1.3-1.4  | SE208655.002 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| PPB_0.1-0.2   SE20865.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TP8_0.1-0.2  | SE208655.003 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| FP9_12-1.3   SE208655.006   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P10_01-0.2   SE208655.007   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.009   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.009   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204342   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204343   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204343   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204343   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 P11_0.01-0.2   SE208655.001   LB204343   OB Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17    | TP8_0.9-1.0  | SE208655.004 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP10_0.1-0.2   SE20865.07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TP9_0.1-0.2  | SE208655.005 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.1-0.2   SE20865.008   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP11_0.1-0.8-0.9   SE20865.009   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP12_0.1-0.2   SE20865.010   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP12_0.1-0.2   SE20865.011   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP12_0.1-7.1   SE20865.012   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP13_0.1-0.2   SE20865.013   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP13_0.1-0.2   SE20865.014   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP13_0.1-0.2   SE20865.015   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP13_0.1-0.2   SE20865.015   LB204342   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP13_0.1-0.2   SE20865.016   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP14_0.1-0.2   SE20865.016   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP15_0.1-0.1   SE20865.016   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP15_0.1-0.1   SE20865.016   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP15_0.1-0.1   SE20865.016   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP15_0.1-0.2   SE20865.02   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP18_0.1-0.2   SE20865.02   LB204343   08 Jul 2020   13 Jul 2020   22 Jul 2020   15 Jul 2020   24 Aug 2020   20 Jul 2020   17 PP18_0.1-0   | TP9_1.2-1.3  | SE208655.006 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 SE208655.019 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P12_0.1-0.2 SE208655.010 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P12_0.8-0.9 SE208655.011 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P12_1.7-1.8 SE208655.012 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P13_0.1-1.0 SE208655.013 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P13_1.2-1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P13_1.2-1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P13_1.2-1.3 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P14_0.1-0.2 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P14_0.1-1.0 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.020 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.022 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P15_0.1-0.2 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 2 | TP10_0.1-0.2 | SE208655.007 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 SE208655.010 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP12_0.8-0.9 SE208655.011 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP12_1.7-1.8 SE208655.012 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_0.1-2.1.3 SE208655.013 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_0.1-2.1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_0.1-2.1.3 SE208655.015 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.017 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_1.1-1.5 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_1.1-1.5 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_1.1-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 DP16_0. | TP11_0.1-0.2 | SE208655.008 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 SE208655.011 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P12_1.7-1.8 SE208655.012 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 P13_0.1-0.2 SE208655.013 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P13_1.2-1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P13_1.2-1.3 SE208655.015 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P14_1.5-1.6 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P15_1.1-2.1 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P15_1.1-1.8 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P15_1.1-1.8 SE208655.020 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P15_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P15_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 27 P18_0.1-0.5 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 20 J | TP11_0.8-0.9 | SE208655.009 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 SE208655.012 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_0.1-0.2 SE208655.013 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_1.2-1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_1.2-1.3 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_1.5-1.6 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.020 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 20 Jul 2020 2 | TP12_0.1-0.2 | SE208655.010 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 SE208655.013 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_1.2-1.3 SE208655.014 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP13_2.0-2.1 SE208655.015 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_5.1-6 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_1.5-1-6 SE208655.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_1.7-1-8 SE208655.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_1.7-1-8 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.020 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.023 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_1.8-1-9 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1-1-1-5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1-1-1-5 SE208655.026 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1-1-1-5 SE208655.026 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1-1-1-5 SE208655.026 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 20 Jul 2020 SE20865.027 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 20 Jul 2020 20 Ju | TP12_0.8-0.9 | SE208655.011 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | TP12_1.7-1.8 | SE208655.012 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 SE208655.015 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_0.1-0.2 SE208655.016 LB204342 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP14_1.5-1.6 SE208655.017 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP15_0.1-0.2 SE208655.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP16_0.1-0.2 SE208655.020 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP17_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.021 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.022 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP18_0.1-0.2 SE208655.022 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_0.1-0.2 SE208655.024 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_0.1-0.2 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_0.1-0.2 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 TP19_1.4-1.5 SE208655.025 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020                                                                                                                          | TP13_0.1-0.2 | SE208655.013 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
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| TP15_0.1-0.2 SE20865.018 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 Jul 2020 27 Jul 2020 29 Jul 2 | TP14_0.1-0.2 | SE208655.016 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 SE20865.019 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 17 Jul 2020 27 Jul 2020 29 Jul 2 | TP14_1.5-1.6 | SE208655.017 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
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| TP17_0.1-0.2         SE208655.021         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP18_0.1-0.2         SE208655.022         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP18_1.8-1.9         SE208655.023         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_0.1-0.2         SE208655.024         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_1.4-1.5         SE208655.025         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | TP15_1.7-1.8 | SE208655.019 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2         SE208655.022         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP18_1.8-1.9         SE208655.023         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_0.1-0.2         SE208655.024         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_1.4-1.5         SE208655.025         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TP16_0.1-0.2 | SE208655.020 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9         SE20865.023         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_0.1-0.2         SE20865.024         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_1.4-1.5         SE20865.025         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | TP17_0.1-0.2 | SE208655.021 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2         SE208655.024         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           TP19_1.4-1.5         SE208655.025         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TP18_0.1-0.2 | SE208655.022 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5         SE208655.025         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TP18_1.8-1.9 | SE208655.023 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1         SE208655.026         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           QD2         SE208655.027         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020           BH1_0.1-0.2         SE208655.031         LB204343         08 Jul 2020         13 Jul 2020         22 Jul 2020         15 Jul 2020         24 Aug 2020         20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TP19_0.1-0.2 | SE208655.024 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2 SE208655.027 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020 BH1_0.1-0.2 SE208655.031 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TP19_1.4-1.5 | SE208655.025 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2 SE208655.031 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | QD1          | SE208655.026 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
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| BH1_0.7-0.8 SE208655.032 LB204343 08 Jul 2020 13 Jul 2020 22 Jul 2020 15 Jul 2020 24 Aug 2020 20 Jul 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BH1_0.1-0.2  | SE208655.031 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
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# Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

# Method: ME-(AU)-[ENV]AN040/AN320

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| 8655.001 LB: | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.002 LB  | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.003 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.004 LB  | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.007 LB: | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.008 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.009 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.010 LB: | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.011 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.012 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.013 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.014 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.015 LB  | 204380 08                                                                                                                                       | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 8655.016 LB: | 3204380 08                                                                                                                                      | 3 Jul 2020 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 Jul 2020                                                                                                                                                                                  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| 120          | 3655.002 LE 3655.003 LE 3655.004 LE 3655.005 LE 3655.006 LE 3655.007 LE 3655.008 LE 3655.009 LE 3655.010 LE 3655.011 LE 3655.012 LE 3655.013 LE | 3855.002         LB204380         00           3855.003         LB204380         01           3855.004         LB204380         01           3855.005         LB204380         01           3855.006         LB204380         01           3855.007         LB204380         01           3855.008         LB204380         02           3855.009         LB204380         03           3855.010         LB204380         04           3855.011         LB204380         04           3855.012         LB204380         04           3855.013         LB204380         04           3855.014         LB204380         04           3855.015         LB204380         04 | 3655.002         LB204380         08 Jul 2020         1           3655.003         LB204380         08 Jul 2020         1           3655.004         LB204380         08 Jul 2020         1           3655.005         LB204380         08 Jul 2020         1           3655.006         LB204380         08 Jul 2020         1           3655.007         LB204380         08 Jul 2020         1           3655.008         LB204380         08 Jul 2020         1           3655.010         LB204380         08 Jul 2020         1           3655.011         LB204380         08 Jul 2020         1           3655.012         LB204380         08 Jul 2020         1           3655.013         LB204380         08 Jul 2020         1           3655.014         LB204380         08 Jul 2020         1           3655.015         LB204380         08 Jul 2020         1 | 3655.002         LB204380         08 Jul 2020         13 Jul 2020           3655.003         LB204380         08 Jul 2020         13 Jul 2020           3655.004         LB204380         08 Jul 2020         13 Jul 2020           3655.005         LB204380         08 Jul 2020         13 Jul 2020           3655.006         LB204380         08 Jul 2020         13 Jul 2020           3655.007         LB204380         08 Jul 2020         13 Jul 2020           3655.008         LB204380         08 Jul 2020         13 Jul 2020           3655.009         LB204380         08 Jul 2020         13 Jul 2020           3655.010         LB204380         08 Jul 2020         13 Jul 2020           3655.011         LB204380         08 Jul 2020         13 Jul 2020           3655.012         LB204380         08 Jul 2020         13 Jul 2020           3655.013         LB204380         08 Jul 2020         13 Jul 2020           3655.014         LB204380         08 Jul 2020         13 Jul 2020           3655.015         LB204380         08 Jul 2020         13 Jul 2020 | 3655.002         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.003         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.004         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.005         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.006         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.007         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.008         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.009         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.010         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.011         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.012         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.013         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021           3655.014         LB204380         08 Jul 2020         13 Jul 2020         04 Jan 2021 | 3655.002         LB204380         08 Jul 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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

### Method: ME-(AU)-[ENV]AN040/AN320

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP14_1.5-1.6 | SE208655.017 | LB204380 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204380 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204380 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204381 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 20 Jul 2020 |
|              |              |          |             |             |                |             |              |             |

### Trace Metals (Dissolved) in Water by ICPMS

### Method: ME-(AU)-[ENV]AN318

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| QR1         | SE208655.028 | LB204402 | 08 Jul 2020 | 13 Jul 2020 | 04 Jan 2021    | 15 Jul 2020 | 04 Jan 2021  | 16 Jul 2020 |

### TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204342 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204343 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

### TRH (Total Recoverable Hydrocarbons) in Water

### Method: ME-(AU)-[ENV]AN403

|             | ,            |          |             |             |                |             |              | ( ) [       |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
| OR1         | SE208655.028 | LB204298 | 08 Jul 2020 | 13 Jul 2020 | 15 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |

# VOC's in Soil

# Method: ME-(AU)-[ENV]AN433

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2 | SE208655.001 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP7_1.3-1.4 | SE208655.002 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.1-0.2 | SE208655.003 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.9-1.0 | SE208655.004 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |

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SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP9_0.1-0.2  | SE208655.005 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD2          | SE208655.027 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QTB1         | SE208655.029 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QTS1         | SE208655.030 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2  | SE208655.031 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8  | SE208655.032 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

### VOCa in Water

| VOCs in water |              |           |             |             |                |              | Method: ME-(AU)-[ENV]AN433 |             |  |
|---------------|--------------|-----------|-------------|-------------|----------------|--------------|----------------------------|-------------|--|
| Sample Name   | Sample No.   | QC Ref    | Sampled     | Received    | Extraction Due | Extracted    | Analysis Due               | Analysed    |  |
| OR1           | SE208655 028 | I B204439 | 08 Jul 2020 | 13 Jul 2020 | 15 Jul 2020    | 16 Jul 2020+ | 25 Aug 2020                | 17 Jul 2020 |  |

### Volatile Petroleum Hydrocarbons in Soil

### Method: ME-(AU)-[ENV]AN433

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| TP7_0.1-0.2  | SE208655.001 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP7_1.3-1.4  | SE208655.002 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.1-0.2  | SE208655.003 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP8_0.9-1.0  | SE208655.004 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP9_0.1-0.2  | SE208655.005 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP9_1.2-1.3  | SE208655.006 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP10_0.1-0.2 | SE208655.007 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP11_0.1-0.2 | SE208655.008 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP11_0.8-0.9 | SE208655.009 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_0.1-0.2 | SE208655.010 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_0.8-0.9 | SE208655.011 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP12_1.7-1.8 | SE208655.012 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_0.1-0.2 | SE208655.013 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_1.2-1.3 | SE208655.014 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP13_2.0-2.1 | SE208655.015 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP14_0.1-0.2 | SE208655.016 | LB204339 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 17 Jul 2020 |
| TP14_1.5-1.6 | SE208655.017 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_0.1-0.2 | SE208655.018 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP15_1.7-1.8 | SE208655.019 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP16_0.1-0.2 | SE208655.020 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP17_0.1-0.2 | SE208655.021 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_0.1-0.2 | SE208655.022 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP18_1.8-1.9 | SE208655.023 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_0.1-0.2 | SE208655.024 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| TP19_1.4-1.5 | SE208655.025 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QD1          | SE208655.026 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

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#### **HOLDING TIME SUMMARY**

SE208655 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

#### Volatile Petroleum Hydrocarbons in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| QD2         | SE208655.027 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QTB1        | SE208655.029 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| QTS1        | SE208655.030 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.1-0.2 | SE208655.031 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |
| BH1_0.7-0.8 | SE208655.032 | LB204340 | 08 Jul 2020 | 13 Jul 2020 | 22 Jul 2020    | 15 Jul 2020 | 24 Aug 2020  | 20 Jul 2020 |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted    | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|--------------|--------------|-------------|
| QR1         | SE208655.028 | LB204439 | 08 Jul 2020 | 13 Jul 2020 | 15 Jul 2020    | 16 Jul 2020† | 25 Aug 2020  | 17 Jul 2020 |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### OC Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Parameter                               | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------------|--------------|---------------|-------|-----------|------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130% | 103        |
|                                         | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130% | 105        |
|                                         | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130% | 104        |
|                                         | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130% | 98         |
|                                         | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130% | 105        |
|                                         | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130% | 107        |
|                                         | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130% | 111        |
|                                         | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130% | 106        |
|                                         | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130% | 104        |
|                                         | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130% | 107        |
|                                         | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130% | 104        |
|                                         | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130% | 109        |
|                                         | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130% | 109        |
|                                         | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130% | 103        |
|                                         | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130% | 102        |
|                                         | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130% | 100        |
|                                         | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130% | 93         |
|                                         | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130% | 104        |
|                                         | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130% | 103        |
|                                         | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130% | 106        |
|                                         | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130% | 104        |
|                                         | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130% | 113        |
|                                         | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130% | 110        |
|                                         | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130% | 106        |
|                                         | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130% | 107        |
|                                         | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130% | 109        |
|                                         | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130% | 122        |

#### OP Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name  | Sample Number | Units | Criteria  | Recovery % |  |  |
|------------------------------|--------------|---------------|-------|-----------|------------|--|--|
| 2-fluorobiphenyl (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130% | 93         |  |  |
|                              | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130% | 71         |  |  |
|                              | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130% | 96         |  |  |
|                              | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130% | 89         |  |  |
|                              | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130% | 72         |  |  |
|                              | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130% | 72         |  |  |
|                              | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130% | 72         |  |  |
|                              | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130% | 92         |  |  |
|                              | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130% | 77         |  |  |
|                              | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130% | 78         |  |  |
|                              | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130% | 101        |  |  |
|                              | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130% | 88         |  |  |
|                              | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130% | 94         |  |  |
|                              | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130% | 82         |  |  |
|                              | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130% | 76         |  |  |
|                              | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130% | 91         |  |  |
|                              | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130% | 81         |  |  |
|                              | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130% | 89         |  |  |
|                              | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130% | 93         |  |  |
|                              | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130% | 86         |  |  |
|                              | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130% | 90         |  |  |
|                              | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130% | 89         |  |  |
|                              | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130% | 100        |  |  |
|                              | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130% | 94         |  |  |
|                              | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130% | 85         |  |  |
|                              | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130% | 92         |  |  |
|                              | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130% | 96         |  |  |
| 114-p-terphenyl (Surrogate)  | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130% | 92         |  |  |
|                              | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130% | 97         |  |  |
|                              | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130% | 82         |  |  |
|                              | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130% | 97         |  |  |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### OP Pesticides in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Parameter                   | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------|--------------|---------------|-------|-----------|------------|
| d14-p-terphenyl (Surrogate) | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130% | 80         |
|                             | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130% | 100        |
|                             | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130% | 90         |
|                             | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130% | 83         |
|                             | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130% | 79         |
|                             | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130% | 97         |
|                             | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130% | 90         |
|                             | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130% | 89         |
|                             | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130% | 93         |
|                             | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130% | 85         |
|                             | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130% | 81         |
|                             | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130% | 87         |
|                             | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130% | 75         |
|                             | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130% | 85         |
|                             | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130% | 91         |
|                             | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130% | 84         |
|                             | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130% | 89         |
|                             | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130% | 87         |
|                             | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130% | 97         |
|                             | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130% | 93         |
|                             | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130% | 84         |
|                             | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130% | 90         |
|                             | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130% | 98         |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|--------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 70 - 130% | 93         |
|                              | TP7_1.3-1.4  | SE208655.002  | %     | 70 - 130% | 90         |
|                              | TP8_0.1-0.2  | SE208655.003  | %     | 70 - 130% | 96         |
|                              | TP8_0.9-1.0  | SE208655.004  | %     | 70 - 130% | 89         |
|                              | TP9_0.1-0.2  | SE208655.005  | %     | 70 - 130% | 72         |
|                              | TP9_1.2-1.3  | SE208655.006  | %     | 70 - 130% | 72         |
|                              | TP10_0.1-0.2 | SE208655.007  | %     | 70 - 130% | 72         |
|                              | TP11_0.1-0.2 | SE208655.008  | %     | 70 - 130% | 92         |
|                              | TP11_0.8-0.9 | SE208655.009  | %     | 70 - 130% | 77         |
|                              | TP12_0.1-0.2 | SE208655.010  | %     | 70 - 130% | 78         |
|                              | TP12_0.8-0.9 | SE208655.011  | %     | 70 - 130% | 101        |
|                              | TP12_1.7-1.8 | SE208655.012  | %     | 70 - 130% | 88         |
|                              | TP13_0.1-0.2 | SE208655.013  | %     | 70 - 130% | 94         |
|                              | TP13_1.2-1.3 | SE208655.014  | %     | 70 - 130% | 82         |
|                              | TP13_2.0-2.1 | SE208655.015  | %     | 70 - 130% | 76         |
|                              | TP14_0.1-0.2 | SE208655.016  | %     | 70 - 130% | 91         |
|                              | TP14_1.5-1.6 | SE208655.017  | %     | 70 - 130% | 81         |
|                              | TP15_0.1-0.2 | SE208655.018  | %     | 70 - 130% | 89         |
|                              | TP15_1.7-1.8 | SE208655.019  | %     | 70 - 130% | 93         |
|                              | TP16_0.1-0.2 | SE208655.020  | %     | 70 - 130% | 86         |
|                              | TP17_0.1-0.2 | SE208655.021  | %     | 70 - 130% | 90         |
|                              | TP18_0.1-0.2 | SE208655.022  | %     | 70 - 130% | 89         |
|                              | TP18_1.8-1.9 | SE208655.023  | %     | 70 - 130% | 100        |
|                              | TP19_0.1-0.2 | SE208655.024  | %     | 70 - 130% | 94         |
|                              | TP19_1.4-1.5 | SE208655.025  | %     | 70 - 130% | 85         |
|                              | BH1_0.1-0.2  | SE208655.031  | %     | 70 - 130% | 92         |
|                              | BH1_0.7-0.8  | SE208655.032  | %     | 70 - 130% | 96         |
| 14-p-terphenyl (Surrogate)   | TP7_0.1-0.2  | SE208655.001  | %     | 70 - 130% | 92         |
|                              | TP7_1.3-1.4  | SE208655.002  | %     | 70 - 130% | 97         |
|                              | TP8_0.1-0.2  | SE208655.003  | %     | 70 - 130% | 82         |
|                              | TP8_0.9-1.0  | SE208655.004  | %     | 70 - 130% | 97         |
|                              | TP9_0.1-0.2  | SE208655.005  | %     | 70 - 130% | 80         |
|                              | TP9_1.2-1.3  | SE208655.006  | %     | 70 - 130% | 100        |
|                              | TP10_0.1-0.2 | SE208655.007  | %     | 70 - 130% | 90         |
|                              | TP11 0.1-0.2 | SE208655.008  | %     | 70 - 130% | 83         |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Parameter                   | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------|--------------|---------------|-------|-----------|------------|
| d14-p-terphenyl (Surrogate) | TP11_0.8-0.9 | SE208655.009  | %     | 70 - 130% | 79         |
|                             | TP12_0.1-0.2 | SE208655.010  | %     | 70 - 130% | 97         |
|                             | TP12_0.8-0.9 | SE208655.011  | %     | 70 - 130% | 90         |
|                             | TP12_1.7-1.8 | SE208655.012  | %     | 70 - 130% | 89         |
|                             | TP13_0.1-0.2 | SE208655.013  | %     | 70 - 130% | 93         |
|                             | TP13_1.2-1.3 | SE208655.014  | %     | 70 - 130% | 85         |
|                             | TP13_2.0-2.1 | SE208655.015  | %     | 70 - 130% | 81         |
|                             | TP14_0.1-0.2 | SE208655.016  | %     | 70 - 130% | 87         |
|                             | TP14_1.5-1.6 | SE208655.017  | %     | 70 - 130% | 75         |
|                             | TP15_0.1-0.2 | SE208655.018  | %     | 70 - 130% | 85         |
|                             | TP15_1.7-1.8 | SE208655.019  | %     | 70 - 130% | 91         |
|                             | TP16_0.1-0.2 | SE208655.020  | %     | 70 - 130% | 84         |
|                             | TP17_0.1-0.2 | SE208655.021  | %     | 70 - 130% | 89         |
|                             | TP18_0.1-0.2 | SE208655.022  | %     | 70 - 130% | 87         |
|                             | TP18_1.8-1.9 | SE208655.023  | %     | 70 - 130% | 97         |
|                             | TP19_0.1-0.2 | SE208655.024  | %     | 70 - 130% | 93         |
|                             | TP19_1.4-1.5 | SE208655.025  | %     | 70 - 130% | 84         |
|                             | BH1_0.1-0.2  | SE208655.031  | %     | 70 - 130% | 90         |
|                             | BH1_0.7-0.8  | SE208655.032  | %     | 70 - 130% | 98         |
| d5-nitrobenzene (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 70 - 130% | 87         |
|                             | TP7_1.3-1.4  | SE208655.002  | %     | 70 - 130% | 84         |
|                             | TP8_0.1-0.2  | SE208655.003  | %     | 70 - 130% | 84         |
|                             | TP8_0.9-1.0  | SE208655.004  | %     | 70 - 130% | 86         |
|                             | TP9_0.1-0.2  | SE208655.005  | %     | 70 - 130% | 82         |
|                             | TP9_1.2-1.3  | SE208655.006  | %     | 70 - 130% | 87         |
|                             | TP10_0.1-0.2 | SE208655.007  | %     | 70 - 130% | 82         |
|                             | TP11_0.1-0.2 | SE208655.008  | %     | 70 - 130% | 86         |
|                             | TP11_0.8-0.9 | SE208655.009  | %     | 70 - 130% | 88         |
|                             | TP12_0.1-0.2 | SE208655.010  | %     | 70 - 130% | 84         |
|                             | TP12_0.8-0.9 | SE208655.011  | %     | 70 - 130% | 85         |
|                             | TP12_1.7-1.8 | SE208655.012  | %     | 70 - 130% | 86         |
|                             | TP13_0.1-0.2 | SE208655.013  | %     | 70 - 130% | 88         |
|                             | TP13_1.2-1.3 | SE208655.014  | %     | 70 - 130% | 90         |
|                             | TP13_2.0-2.1 | SE208655.015  | %     | 70 - 130% | 84         |
|                             | TP14_0.1-0.2 | SE208655.016  | %     | 70 - 130% | 84         |
|                             | TP14_1.5-1.6 | SE208655.017  | %     | 70 - 130% | 73         |
|                             | TP15_0.1-0.2 | SE208655.018  | %     | 70 - 130% | 82         |
|                             | TP15_1.7-1.8 | SE208655.019  | %     | 70 - 130% | 87         |
|                             | TP16_0.1-0.2 | SE208655.020  | %     | 70 - 130% | 82         |
|                             | TP17_0.1-0.2 | SE208655.021  | %     | 70 - 130% | 88         |
|                             | TP18_0.1-0.2 | SE208655.022  | %     | 70 - 130% | 89         |
|                             | TP18_1.8-1.9 | SE208655.023  | %     | 70 - 130% | 100        |
|                             | TP19_0.1-0.2 | SE208655.024  | %     | 70 - 130% | 98         |
|                             | TP19_1.4-1.5 | SE208655.025  | %     | 70 - 130% | 86         |
|                             | BH1_0.1-0.2  | SE208655.031  | %     | 70 - 130% | 96         |
|                             | BH1_0.7-0.8  | SE208655.032  | %     | 70 - 130% | 101        |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Parameter                               | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------------|--------------|---------------|-------|-----------|------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130% | 103        |
|                                         | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130% | 105        |
|                                         | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130% | 104        |
|                                         | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130% | 98         |
|                                         | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130% | 105        |
|                                         | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130% | 107        |
|                                         | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130% | 111        |
|                                         | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130% | 106        |
|                                         | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130% | 104        |
|                                         | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130% | 107        |
|                                         | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130% | 104        |
|                                         | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130% | 109        |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PCBs in Soil (continued) Method: ME-(AU)-[ENV]AN420

| Parameter                               | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------------|--------------|---------------|-------|-----------|------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130% | 109        |
|                                         | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130% | 103        |
|                                         | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130% | 102        |
|                                         | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130% | 100        |
|                                         | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130% | 93         |
|                                         | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130% | 104        |
|                                         | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130% | 103        |
|                                         | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130% | 106        |
|                                         | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130% | 104        |
|                                         | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130% | 113        |
|                                         | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130% | 110        |
|                                         | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130% | 106        |
|                                         | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130% | 107        |
|                                         | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130% | 109        |
|                                         | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130% | 122        |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| in Soil                         |              |               |       | Method: ME | -(AU)-[ENV]AN |
|---------------------------------|--------------|---------------|-------|------------|---------------|
| arameter                        | Sample Name  | Sample Number | Units | Criteria   | Recovery 5    |
| Bromofluorobenzene (Surrogate)  | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130%  | 71            |
|                                 | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130%  | 68            |
|                                 | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130%  | 72            |
|                                 | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130%  | 73            |
|                                 | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130%  | 70            |
|                                 | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130%  | 67            |
|                                 | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130%  | 69            |
|                                 | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130%  | 71            |
|                                 | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130%  | 68            |
|                                 | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130%  | 69            |
|                                 | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130%  | 66            |
|                                 | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130%  | 70            |
|                                 | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130%  | 68            |
|                                 | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130%  | 66            |
|                                 | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130%  | 67            |
|                                 | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130%  | 68            |
|                                 | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130%  | 71            |
|                                 | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130%  | 69            |
|                                 | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130%  | 68            |
|                                 | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130%  | 77            |
|                                 | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130%  | 64            |
|                                 | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130%  | 68            |
|                                 | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130%  | 67            |
|                                 | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130%  | 70            |
|                                 | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130%  | 71            |
|                                 | QD1          | SE208655.026  | %     | 60 - 130%  | 66            |
|                                 | QD2          | SE208655.027  | %     | 60 - 130%  | 68            |
|                                 | QTB1         | SE208655.029  | %     | 60 - 130%  | 78            |
|                                 | QTS1         | SE208655.030  | %     | 60 - 130%  | 70            |
|                                 | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130%  | 69            |
|                                 | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130%  | 69            |
| -1,2-dichloroethane (Surrogate) | TP7_0.1-0.2  | SE208655.001  | %     | 60 - 130%  | 83            |
|                                 | TP7_1.3-1.4  | SE208655.002  | %     | 60 - 130%  | 80            |
|                                 | TP8_0.1-0.2  | SE208655.003  | %     | 60 - 130%  | 84            |
|                                 | TP8_0.9-1.0  | SE208655.004  | %     | 60 - 130%  | 86            |
|                                 | TP9_0.1-0.2  | SE208655.005  | %     | 60 - 130%  | 84            |
|                                 | TP9_1.2-1.3  | SE208655.006  | %     | 60 - 130%  | 78            |
|                                 | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130%  | 80            |
|                                 | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130%  | 85            |
|                                 | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130%  | 79            |
|                                 | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130%  | 82            |
|                                 | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130%  | 78            |
|                                 | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130%  | 82            |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

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| OC's in Soil (continued)          |                              |                              |        |                        | (AU)-[ENV]A |
|-----------------------------------|------------------------------|------------------------------|--------|------------------------|-------------|
| arameter                          | Sample Name                  | Sample Number                | Units  | Criteria               | Recovery    |
| d4-1,2-dichloroethane (Surrogate) | TP13_0.1-0.2                 | SE208655.013                 | %      | 60 - 130%              | 80          |
|                                   | TP13_1.2-1.3                 | SE208655.014                 | %      | 60 - 130%              | 78          |
|                                   | TP13_2.0-2.1                 | SE208655.015                 | %      | 60 - 130%              | 79          |
|                                   | TP14_0.1-0.2                 | SE208655.016                 | %      | 60 - 130%              | 81          |
|                                   | TP14_1.5-1.6                 | SE208655.017                 | %      | 60 - 130%              | 87          |
|                                   | TP15_0.1-0.2                 | SE208655.018                 | %      | 60 - 130%              | 86          |
|                                   | TP15_1.7-1.8                 | SE208655.019                 | %      | 60 - 130%              | 85          |
|                                   | TP16_0.1-0.2                 | SE208655.020                 | %      | 60 - 130%              | 95          |
|                                   | TP17_0.1-0.2                 | SE208655.021                 | %      | 60 - 130%              | 80          |
|                                   | TP18_0.1-0.2                 | SE208655.022                 | %      | 60 - 130%              | 85          |
|                                   | TP18_1.8-1.9                 | SE208655.023                 | %      | 60 - 130%              | 84          |
|                                   | TP19_0.1-0.2                 | SE208655.024                 | %      | 60 - 130%              | 89          |
|                                   | TP19_1.4-1.5                 | SE208655.025                 | %      | 60 - 130%              | 89          |
|                                   | QD1                          | SE208655.026                 | %      | 60 - 130%              | 84          |
|                                   | QD2                          | SE208655.027                 | %      | 60 - 130%              | 85          |
|                                   | QTB1                         | SE208655.029                 | %      | 60 - 130%              | 83          |
|                                   | QTS1                         | SE208655.030                 | %      | 60 - 130%              | 84          |
|                                   | BH1_0.1-0.2                  | SE208655.031                 | %      | 60 - 130%              | 86          |
|                                   | BH1_0.7-0.8                  | SE208655.032                 | %      | 60 - 130%              | 87          |
| -toluene (Surrogate)              | TP7_0.1-0.2                  | SE208655.001                 | %      | 60 - 130%              | 80          |
|                                   | TP7_1.3-1.4                  | SE208655.002                 | %      | 60 - 130%              | 75          |
|                                   | TP8_0.1-0.2                  | SE208655.003                 | %      | 60 - 130%              | 79          |
|                                   | TP8_0.9-1.0                  | SE208655.004                 | %      | 60 - 130%              | 83          |
|                                   | TP9_0.1-0.2                  | SE208655.005                 | %      | 60 - 130%              | 79          |
|                                   | TP9_1.2-1.3                  | SE208655.006                 | %      | 60 - 130%              | 75          |
|                                   | TP10_0.1-0.2                 | SE208655.007                 | %      | 60 - 130%              | 75          |
|                                   | TP11_0.1-0.2                 | SE208655.008                 | %      | 60 - 130%              | 78          |
|                                   | TP11 0.8-0.9                 | SE208655.009                 | %      | 60 - 130%              | 76          |
|                                   | TP12_0.1-0.2                 | SE208655.010                 | %      | 60 - 130%              | 78          |
|                                   | TP12_0.8-0.9                 | SE208655.011                 | %      | 60 - 130%              | 74          |
|                                   | TP12_1.7-1.8                 | SE208655.012                 | %      | 60 - 130%              | 79          |
|                                   | TP13_0.1-0.2                 | SE208655.013                 | %      | 60 - 130%              | 75          |
|                                   | TP13_1.2-1.3                 | SE208655.014                 | %      | 60 - 130%              | 73          |
|                                   | TP13_2.0-2.1                 | SE208655.015                 | %<br>% | 60 - 130%              | 73          |
|                                   | TP14_0.1-0.2                 | SE208655.016                 | %      | 60 - 130%              | 77          |
|                                   | TP14_1.5-1.6                 | SE208655.017                 | %      | 60 - 130%              | 84          |
|                                   | TP15_0.1-0.2                 | SE208655.018                 | %<br>% | 60 - 130%              | 83          |
|                                   | TP15_1.7-1.8                 | SE208655.019                 | %<br>  | 60 - 130%              | 81          |
|                                   |                              | ·                            |        |                        |             |
|                                   | TP16_0.1-0.2<br>TP17_0.1-0.2 | SE208655.020<br>SE208655.021 | %<br>% | 60 - 130%<br>60 - 130% | 91<br>78    |
|                                   |                              | ·                            |        |                        |             |
|                                   | TP18_0.1-0.2                 | SE208655.022                 | %      | 60 - 130%              | 82          |
|                                   | TP18_1.8-1.9                 | SE208655.023                 | %      | 60 - 130%              | 82          |
|                                   | TP19_0.1-0.2                 | SE208655.024                 | %      | 60 - 130%              | 86          |
|                                   | TP19_1.4-1.5                 | SE208655.025                 | %      | 60 - 130%              | 86          |
|                                   | QD1                          | SE208655.026                 | %      | 60 - 130%              | 81          |
|                                   | QD2                          | SE208655.027                 | %      | 60 - 130%              | 83          |
|                                   | QTB1                         | SE208655.029                 | %      | 60 - 130%              | 81          |
|                                   | QTS1                         | SE208655.030                 | %      | 60 - 130%              | 82          |
|                                   | BH1_0.1-0.2                  | SE208655.031                 | %      | 60 - 130%              | 85          |

#### VOCa in Water

| VOCs in Water                     |             |               |       | Method: M | E-(AU)-[ENV]AN433 |
|-----------------------------------|-------------|---------------|-------|-----------|-------------------|
| Parameter                         | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| Bromofluorobenzene (Surrogate)    | QR1         | SE208655.028  | %     | 40 - 130% | 98                |
| d4-1,2-dichloroethane (Surrogate) | QR1         | SE208655.028  | %     | 40 - 130% | 110               |
| d8-toluene (Surrogate)            | QR1         | SE208655.028  | %     | 40 - 130% | 96                |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Parameter                      | Sample Name | Sample Number | Units | Criteria  | Recovery % |
|--------------------------------|-------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate) | TP7_0.1-0.2 | SE208655.001  | %     | 60 - 130% | 71         |
|                                | TP7_1.3-1.4 | SE208655.002  | %     | 60 - 130% | 68         |
|                                | TP8_0.1-0.2 | SE208655.003  | %     | 60 - 130% | 72         |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

# Volatile Petroleum Hydrocarbons in Soil (continued) Parameter

#### Method: ME-(AU)-[ENV]AN433

| latile Petroleum Hydrocarbons in Soil (continued) |              |                              |        | Modiod. M | E-(AU)-[ENV]AN |
|---------------------------------------------------|--------------|------------------------------|--------|-----------|----------------|
| arameter                                          | Sample Name  | Sample Number                | Units  | Criteria  | Recovery 9     |
| Bromofluorobenzene (Surrogate)                    | TP8_0.9-1.0  | SE208655.004                 | %      | 60 - 130% | 73             |
|                                                   | TP9_0.1-0.2  | SE208655.005                 | %      | 60 - 130% | 70             |
|                                                   | TP9_1.2-1.3  | SE208655.006                 | %      | 60 - 130% | 67             |
|                                                   | TP10_0.1-0.2 | SE208655.007                 | %      | 60 - 130% | 69             |
|                                                   | TP11_0.1-0.2 | SE208655.008                 | %      | 60 - 130% | 71             |
|                                                   | TP11_0.8-0.9 | SE208655.009                 | %      | 60 - 130% | 68             |
|                                                   | TP12_0.1-0.2 | SE208655.010                 | %      | 60 - 130% | 69             |
|                                                   | TP12_0.8-0.9 | SE208655.011                 | %      | 60 - 130% | 66             |
|                                                   |              |                              | %      |           | 70             |
|                                                   | TP12_1.7-1.8 | SE208655.012<br>SE208655.013 |        | 60 - 130% |                |
|                                                   | TP13_0.1-0.2 |                              | %      | 60 - 130% | 68             |
|                                                   | TP13_1.2-1.3 | SE208655.014                 | %      | 60 - 130% | 66             |
|                                                   | TP13_2.0-2.1 | SE208655.015                 | %      | 60 - 130% | 67             |
|                                                   | TP14_0.1-0.2 | SE208655.016                 | %      | 60 - 130% | 68             |
|                                                   | TP14_1.5-1.6 | SE208655.017                 | %      | 60 - 130% | 71             |
|                                                   | TP15_0.1-0.2 | SE208655.018                 | %      | 60 - 130% | 69             |
|                                                   | TP15_1.7-1.8 | SE208655.019                 | %      | 60 - 130% | 68             |
|                                                   | TP16_0.1-0.2 | SE208655.020                 | %      | 60 - 130% | 77             |
|                                                   | TP17_0.1-0.2 | SE208655.021                 | %      | 60 - 130% | 64             |
|                                                   | TP18_0.1-0.2 | SE208655.022                 | %      | 60 - 130% | 68             |
|                                                   | TP18_1.8-1.9 | SE208655.023                 | %      | 60 - 130% | 67             |
|                                                   | TP19_0.1-0.2 | SE208655.024                 | %      | 60 - 130% | 70             |
|                                                   | TP19 1.4-1.5 | SE208655.025                 | %      | 60 - 130% | 71             |
|                                                   | QD1          | SE208655.026                 | %      | 60 - 130% | 66             |
|                                                   | QD2          | SE208655.027                 | %      | 60 - 130% | 68             |
|                                                   |              | <del></del>                  |        |           |                |
|                                                   | BH1_0.1-0.2  | SE208655.031                 | %      | 60 - 130% | 69             |
|                                                   | BH1_0.7-0.8  | SE208655.032                 | %      | 60 - 130% | 69             |
| -1,2-dichloroethane (Surrogate)                   | TP7_0.1-0.2  | SE208655.001                 | %      | 60 - 130% | 83             |
|                                                   | TP7_1.3-1.4  | SE208655.002                 | %      | 60 - 130% | 80             |
|                                                   | TP8_0.1-0.2  | SE208655.003                 | %      | 60 - 130% | 84             |
|                                                   | TP8_0.9-1.0  | SE208655.004                 | %      | 60 - 130% | 86             |
|                                                   | TP9_0.1-0.2  | SE208655.005                 | %      | 60 - 130% | 84             |
|                                                   | TP9_1.2-1.3  | SE208655.006                 | %      | 60 - 130% | 78             |
|                                                   | TP10_0.1-0.2 | SE208655.007                 | %      | 60 - 130% | 80             |
|                                                   | TP11_0.1-0.2 | SE208655.008                 | %      | 60 - 130% | 85             |
|                                                   | TP11_0.8-0.9 | SE208655.009                 | %      | 60 - 130% | 79             |
|                                                   | TP12_0.1-0.2 | SE208655.010                 | %      | 60 - 130% | 82             |
|                                                   | TP12_0.8-0.9 | SE208655.011                 | %      | 60 - 130% | 78             |
|                                                   | TP12_1.7-1.8 | SE208655.012                 | %      | 60 - 130% | 82             |
|                                                   | TP13_0.1-0.2 | SE208655.013                 | %      | 60 - 130% | 80             |
|                                                   |              | SE208655.014                 |        |           |                |
|                                                   | TP13_1.2-1.3 | ·                            | %      | 60 - 130% | 78             |
|                                                   | TP13_2.0-2.1 | SE208655.015                 | %      | 60 - 130% | 79             |
|                                                   | TP14_0.1-0.2 | SE208655.016                 | %      | 60 - 130% | 81             |
|                                                   | TP14_1.5-1.6 | SE208655.017                 | %      | 60 - 130% | 87             |
|                                                   | TP15_0.1-0.2 | SE208655.018                 | %      | 60 - 130% | 86             |
|                                                   | TP15_1.7-1.8 | SE208655.019                 | %      | 60 - 130% | 85             |
|                                                   | TP16_0.1-0.2 | SE208655.020                 | %      | 60 - 130% | 95             |
|                                                   | TP17_0.1-0.2 | SE208655.021                 | %      | 60 - 130% | 80             |
|                                                   | TP18_0.1-0.2 | SE208655.022                 | %      | 60 - 130% | 85             |
|                                                   | TP18_1.8-1.9 | SE208655.023                 | %      | 60 - 130% | 84             |
|                                                   | TP19_0.1-0.2 | SE208655.024                 | %      | 60 - 130% | 89             |
|                                                   | TP19_1.4-1.5 | SE208655.025                 | %      | 60 - 130% | 89             |
|                                                   | QD1          | SE208655.026                 | %      | 60 - 130% | 84             |
|                                                   | QD2          | SE208655.027                 | %<br>% | 60 - 130% | 85             |
|                                                   |              |                              |        |           |                |
|                                                   | BH1_0.1-0.2  | SE208655.031                 | %      | 60 - 130% | 86             |
|                                                   | BH1_0.7-0.8  | SE208655.032                 | %      | 60 - 130% | 87             |
| toluene (Surrogate)                               | TP7_0.1-0.2  | SE208655.001                 | %      | 60 - 130% | 80             |
|                                                   | TP7_1.3-1.4  | SE208655.002                 | %      | 60 - 130% | 75             |
|                                                   | TP8_0.1-0.2  | SE208655.003                 | %      | 60 - 130% | 79             |
|                                                   | TP8_0.9-1.0  | SE208655.004                 | %      | 60 - 130% | 83             |
|                                                   | TP9_0.1-0.2  | SE208655.005                 | %      | 60 - 130% | 79             |
|                                                   | TP9_1.2-1.3  | SE208655.006                 | %      | 60 - 130% | 75             |

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SURR

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Volatile Petroleum Hydrocarbons in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| Parameter              | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|------------------------|--------------|---------------|-------|-----------|------------|
| d8-toluene (Surrogate) | TP10_0.1-0.2 | SE208655.007  | %     | 60 - 130% | 75         |
|                        | TP11_0.1-0.2 | SE208655.008  | %     | 60 - 130% | 78         |
|                        | TP11_0.8-0.9 | SE208655.009  | %     | 60 - 130% | 76         |
|                        | TP12_0.1-0.2 | SE208655.010  | %     | 60 - 130% | 78         |
|                        | TP12_0.8-0.9 | SE208655.011  | %     | 60 - 130% | 74         |
|                        | TP12_1.7-1.8 | SE208655.012  | %     | 60 - 130% | 79         |
|                        | TP13_0.1-0.2 | SE208655.013  | %     | 60 - 130% | 75         |
|                        | TP13_1.2-1.3 | SE208655.014  | %     | 60 - 130% | 73         |
|                        | TP13_2.0-2.1 | SE208655.015  | %     | 60 - 130% | 73         |
|                        | TP14_0.1-0.2 | SE208655.016  | %     | 60 - 130% | 77         |
|                        | TP14_1.5-1.6 | SE208655.017  | %     | 60 - 130% | 84         |
|                        | TP15_0.1-0.2 | SE208655.018  | %     | 60 - 130% | 83         |
|                        | TP15_1.7-1.8 | SE208655.019  | %     | 60 - 130% | 81         |
|                        | TP16_0.1-0.2 | SE208655.020  | %     | 60 - 130% | 91         |
|                        | TP17_0.1-0.2 | SE208655.021  | %     | 60 - 130% | 78         |
|                        | TP18_0.1-0.2 | SE208655.022  | %     | 60 - 130% | 82         |
|                        | TP18_1.8-1.9 | SE208655.023  | %     | 60 - 130% | 82         |
|                        | TP19_0.1-0.2 | SE208655.024  | %     | 60 - 130% | 86         |
|                        | TP19_1.4-1.5 | SE208655.025  | %     | 60 - 130% | 86         |
|                        | QD1          | SE208655.026  | %     | 60 - 130% | 81         |
|                        | QD2          | SE208655.027  | %     | 60 - 130% | 83         |
|                        | BH1_0.1-0.2  | SE208655.031  | %     | 60 - 130% | 85         |
|                        | BH1_0.7-0.8  | SE208655.032  | %     | 60 - 130% | 86         |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|-------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | QR1         | SE208655.028  | %     | 40 - 130% | 98         |
| d4-1,2-dichloroethane (Surrogate) | QR1         | SE208655.028  | %     | 60 - 130% | 110        |
| d8-toluene (Surrogate)            | QR1         | SE208655.028  | %     | 40 - 130% | 96         |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Mercury (dissolved) in Water

#### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Sample Number | Parameter | Units | LOR    | Result  |
|---------------|-----------|-------|--------|---------|
| LB204300.001  | Mercury   | mg/L  | 0.0001 | <0.0001 |

#### Mercury in Soil

#### Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB204384.001  | Mercury   | mg/kg | 0.05 | <0.05  |
| LB204386.001  | Mercury   | mg/kg | 0.05 | <0.05  |

#### **OC Pesticides in Soil**

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result       |
|---------------|-----------------------------------------|-------|-----|--------------|
| LB204342.001  | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1         |
|               | Alpha BHC                               | mg/kg | 0.1 | <0.1         |
|               | Lindane                                 | mg/kg | 0.1 | <0.1         |
|               | Heptachlor                              | mg/kg | 0.1 | <0.1         |
|               | Aldrin                                  | mg/kg | 0.1 | <0.1         |
|               | Beta BHC                                | mg/kg | 0.1 | <0.1         |
|               | Delta BHC                               | mg/kg | 0.1 | <0.1         |
|               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1         |
|               | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2         |
|               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1         |
|               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1         |
|               | p,p'-DDE                                | mg/kg | 0.1 | <0.1         |
|               | Dieldrin                                | mg/kg | 0.2 | <0.2         |
|               | Endrin                                  | mg/kg | 0.2 | <0.2         |
|               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2         |
|               | p,p'-DDD                                | mg/kg | 0.1 | <0.1         |
|               | p,p'-DDT                                | mg/kg | 0.1 | <0.1         |
|               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1         |
|               | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1         |
|               | Methoxychlor                            | mg/kg | 0.1 | <0.1         |
|               | Endrin Ketone                           | mg/kg | 0.1 | <0.1         |
|               | Isodrin                                 | mg/kg | 0.1 | <0.1         |
|               | Mirex                                   | mg/kg | 0.1 | <0.1         |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 93           |
| LB204343.001  | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1         |
| LB204040.001  | Alpha BHC                               | mg/kg | 0.1 | <0.1         |
|               | Lindane                                 | mg/kg | 0.1 | <0.1         |
|               | Heptachlor                              | mg/kg | 0.1 | <0.1         |
|               | Aldrin                                  | mg/kg | 0.1 | <0.1         |
|               | Beta BHC                                | mg/kg | 0.1 | <0.1         |
|               | Delta BHC                               |       | 0.1 | <0.1         |
|               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1         |
|               |                                         | mg/kg | 0.1 | <0.1         |
|               | Alpha Endosulfan                        | mg/kg | -   |              |
|               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1<br><0.1 |
|               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1         |
|               | p,p'-DDE                                | mg/kg | 0.1 | <0.1         |
|               | Dieldrin                                | mg/kg | 0.2 |              |
|               | Endrin                                  | mg/kg | 0.2 | <0.2         |
|               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2         |
|               | p,p'-DDD                                | mg/kg | 0.1 | <0.1         |
|               | p,p'-DDT                                | mg/kg | 0.1 | <0.1         |
|               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1         |
|               | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1         |
|               | Methoxychlor                            | mg/kg | 0.1 | <0.1         |
|               | Endrin Ketone                           | mg/kg | 0.1 | <0.1         |
|               | Isodrin                                 | mg/kg | 0.1 | <0.1         |
|               | Mirex                                   | mg/kg | 0.1 | <0.1         |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | _   | 90           |

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Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### OP Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                         | Units | LOR | Result |
|---------------|-----------------------------------|-------|-----|--------|
| LB204342.001  | Dichlorvos                        | mg/kg | 0.5 | <0.5   |
|               | Dimethoate                        | mg/kg | 0.5 | <0.5   |
|               | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5   |
|               | Fenitrothion                      | mg/kg | 0.2 | <0.2   |
|               | Malathion                         | mg/kg | 0.2 | <0.2   |
|               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2   |
|               | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2   |
|               | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2   |
|               | Methidathion                      | mg/kg | 0.5 | <0.5   |
|               | Ethion                            | mg/kg | 0.2 | <0.2   |
|               | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2   |
| Surrogates    | 2-fluorobiphenyl (Surrogate)      | %     | -   | 84     |
|               | d14-p-terphenyl (Surrogate)       | %     | -   | 82     |
| LB204343.001  | Dichlorvos                        | mg/kg | 0.5 | <0.5   |
|               | Dimethoate                        | mg/kg | 0.5 | <0.5   |
|               | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5   |
|               | Fenitrothion                      | mg/kg | 0.2 | <0.2   |
|               | Malathion                         | mg/kg | 0.2 | <0.2   |
|               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2   |
|               | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2   |
|               | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2   |
|               | Methidathion                      | mg/kg | 0.5 | <0.5   |
|               | Ethion                            | mg/kg | 0.2 | <0.2   |
|               | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2   |
| Surrogates    | 2-fluorobiphenyl (Surrogate)      | %     | -   | 87     |
|               | d14-p-terphenyl (Surrogate)       | %     | -   | 82     |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result |
|---------------|------------------------------|-------|-----|--------|
| LB204342.001  | Naphthalene                  | mg/kg | 0.1 | <0.1   |
|               | 2-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | 1-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | Acenaphthylene               | mg/kg | 0.1 | <0.1   |
|               | Acenaphthene                 | mg/kg | 0.1 | <0.1   |
|               | Fluorene                     | mg/kg | 0.1 | <0.1   |
|               | Phenanthrene                 | mg/kg | 0.1 | <0.1   |
|               | Anthracene                   | mg/kg | 0.1 | <0.1   |
|               | Fluoranthene                 | mg/kg | 0.1 | <0.1   |
|               | Pyrene                       | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)anthracene           | mg/kg | 0.1 | <0.1   |
|               | Chrysene                     | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)pyrene               | mg/kg | 0.1 | <0.1   |
|               | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
| Surrogates    | d5-nitrobenzene (Surrogate)  | %     | -   | 82     |
|               | 2-fluorobiphenyl (Surrogate) | %     | -   | 84     |
|               | d14-p-terphenyl (Surrogate)  | %     | -   | 82     |
| LB204343.001  | Naphthalene                  | mg/kg | 0.1 | <0.1   |
|               | 2-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | 1-methylnaphthalene          | mg/kg | 0.1 | <0.1   |
|               | Acenaphthylene               | mg/kg | 0.1 | <0.1   |
|               | Acenaphthene                 | mg/kg | 0.1 | <0.1   |
|               | Fluorene                     | mg/kg | 0.1 | <0.1   |
|               | Phenanthrene                 | mg/kg | 0.1 | <0.1   |
|               | Anthracene                   | mg/kg | 0.1 | <0.1   |
|               | Fluoranthene                 | mg/kg | 0.1 | <0.1   |
|               | Pyrene                       | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)anthracene           | mg/kg | 0.1 | <0.1   |
|               | Chrysene                     | mg/kg | 0.1 | <0.1   |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result |
|---------------|------------------------------|-------|-----|--------|
| LB204343.001  | Benzo(a)pyrene               | mg/kg | 0.1 | <0.1   |
|               | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
| Surrogates    | d5-nitrobenzene (Surrogate)  | %     | -   | 81     |
|               | 2-fluorobiphenyl (Surrogate) | %     | -   | 87     |
|               | d14-p-terphenyl (Surrogate)  | %     | -   | 82     |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number |           | Parameter                               | Units | LOR | Result |
|---------------|-----------|-----------------------------------------|-------|-----|--------|
| LB204342.001  | _         | Arochlor 1016                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1221                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1232                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1242                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1248                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1254                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1260                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1262                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1268                           | mg/kg | 0.2 | <0.2   |
|               |           | Total PCBs (Arochlors)                  | mg/kg | 1   | <1     |
| Sui           | rrogates  | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 93     |
| LB204343.001  |           | Arochlor 1016                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1221                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1232                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1242                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1248                           | mg/kg | 0.2 | <0.2   |
|               | _         | Arochlor 1254                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1260                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1262                           | mg/kg | 0.2 | <0.2   |
|               |           | Arochlor 1268                           | mg/kg | 0.2 | <0.2   |
| _             |           | Total PCBs (Arochlors)                  | mg/kg | 1   | <1     |
| Sui           | irrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 90     |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB204380.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |
| LB204381.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB204402.001  | Arsenic, As  | μg/L  | 1   | <1     |
| •             | Cadmium, Cd  | μg/L  | 0.1 | <0.1   |
|               | Chromium, Cr | μg/L  | 1   | <1     |
|               | Copper, Cu   | μg/L  | 1   | <1     |
|               | Lead, Pb     | μg/L  | 1   | <1     |
|               | Nickel, Ni   | μg/L  | 1   | <1     |
|               | Zinc, Zn     | μg/L  | 5   | <5     |

#### TRH (Total Recoverable Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter | Units | LOR |
|---------------|-----------|-------|-----|
|               |           |       |     |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### TRH (Total Recoverable Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result |
|---------------|-------------------|-------|-----|--------|
| LB204342.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |
| LB204343.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |

#### TRH (Total Recoverable Hydrocarbons) in Water

#### Method: ME-(AU)-[ENV]AN403

| Sample Number                 | Parameter   | Units | LOR | Result |
|-------------------------------|-------------|-------|-----|--------|
| Sample Number<br>LB204298.001 | TRH C10-C14 | μg/L  | 50  | <50    |
|                               | TRH C15-C28 | μg/L  | 200 | <200   |
|                               | TRH C29-C36 | μg/L  | 200 | <200   |
|                               | TRH C37-C40 | μg/L  | 200 | <200   |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |                     | Parameter                         | Units | LOR | Result |
|---------------|---------------------|-----------------------------------|-------|-----|--------|
| LB204339.001  | Monocyclic Aromatic | Benzene                           | mg/kg | 0.1 | <0.1   |
|               | Hydrocarbons        | Toluene                           | mg/kg | 0.1 | <0.1   |
|               |                     | Ethylbenzene                      | mg/kg | 0.1 | <0.1   |
|               |                     | m/p-xylene                        | mg/kg | 0.2 | <0.2   |
|               |                     | o-xylene                          | mg/kg | 0.1 | <0.1   |
|               | Polycyclic VOCs     | Naphthalene                       | mg/kg | 0.1 | <0.1   |
|               | Surrogates          | d4-1,2-dichloroethane (Surrogate) | %     | -   | 84     |
|               |                     | d8-toluene (Surrogate)            | %     | -   | 89     |
|               |                     | Bromofluorobenzene (Surrogate)    | %     | -   | 98     |
|               | Totals              | Total BTEX                        | mg/kg | 0.6 | <0.6   |
| LB204340.001  | Monocyclic Aromatic | Benzene                           | mg/kg | 0.1 | <0.1   |
|               | Hydrocarbons        | Toluene                           | mg/kg | 0.1 | <0.1   |
|               |                     | Ethylbenzene                      | mg/kg | 0.1 | <0.1   |
|               |                     | m/p-xylene                        | mg/kg | 0.2 | <0.2   |
|               |                     | o-xylene                          | mg/kg | 0.1 | <0.1   |
|               | Polycyclic VOCs     | Naphthalene                       | mg/kg | 0.1 | <0.1   |
|               | Surrogates          | d4-1,2-dichloroethane (Surrogate) | %     | -   | 79     |
|               |                     | d8-toluene (Surrogate)            | %     | -   | 74     |
|               |                     | Bromofluorobenzene (Surrogate)    | %     | -   | 79     |
|               | Totals              | Total BTEX                        | mg/kg | 0.6 | <0.6   |

#### VOCs in Water

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |                     | Parameter                         | Units | LOR | Result |
|---------------|---------------------|-----------------------------------|-------|-----|--------|
| LB204439.001  | Monocyclic Aromatic | Benzene                           | μg/L  | 0.5 | <0.5   |
|               | Hydrocarbons        | Toluene                           | μg/L  | 0.5 | <0.5   |
|               |                     | Ethylbenzene                      | μg/L  | 0.5 | <0.5   |
|               |                     | m/p-xylene                        | μg/L  | 1   | <1     |
|               |                     | o-xylene                          | μg/L  | 0.5 | <0.5   |
|               | Polycyclic VOCs     | Naphthalene                       | μg/L  | 0.5 | <0.5   |
|               | Surrogates          | d4-1,2-dichloroethane (Surrogate) | %     | -   | 109    |
|               |                     | d8-toluene (Surrogate)            | %     | -   | 95     |
|               |                     | Bromofluorobenzene (Surrogate)    | %     | _   | 95     |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result |
|---------------|------------|-----------------------------------|-------|-----|--------|
| LB204339.001  |            | TRH C6-C9                         | mg/kg | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %     | -   | 84     |
| LB204340.001  |            | TRH C6-C9                         | mg/kg | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %     | -   | 79     |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

Sample Number Parameter Units LOR

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Volatile Petroleum Hydrocarbons in Water (continued)

#### Method: ME-(AU)-[ENV]AN433

| •             | •          |                                   |       |     |        |
|---------------|------------|-----------------------------------|-------|-----|--------|
| Sample Number |            | Parameter                         | Units | LOR | Result |
| LB204439.001  |            | TRH C6-C9                         | μg/L  | 40  | <40    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %     | -   | 109    |
|               |            | d8-toluene (Surrogate)            | %     | -   | 95     |
|               |            | Bromofluorobenzene (Surrogate)    | %     | -   | 95     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury (dissolved) in Water

#### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Original     | Duplicate    | Parameter | Units | LOR    | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|--------|----------|-----------|------------|-------|
| SE208675.021 | LB204300.007 | Mercury   | μg/L  | 0.0001 | < 0.0001 | 0.0000    | 200        | 11    |

#### Mercury in Soil

#### Method: ME-(AU)-[ENV]AN312

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|-----------|------------|-------|
| SE208655.010 | LB204384.014 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |
| SE208655.019 | LB204384.024 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |
| SE208655.021 | LB204386.014 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |
| SE208655.032 | LB204386.023 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |

#### **Moisture Content**

#### Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204345.011 | % Moisture | %w/w  | 1   | 10.2     | 10.3      | 40         | 1     |
| SE208655.016 | LB204345.018 | % Moisture | %w/w  | 1   | 10.7     | 11.6      | 39         | 9     |
| SE208655.026 | LB204346.011 | % Moisture | %w/w  | 1   | 13.3     | 12.0      | 38         | 10    |
| SE208655.032 | LB204346.016 | % Moisture | %w/w  | 1   | 11.0     | 10.3      | 39         | 7     |

#### OC Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| C Pesticides in S | Oli          |            |                                         |       |     |          | Men       | od: ME-(AU)- | (ELAA IV.) |
|-------------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|--------------|------------|
| Priginal          | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria %   | RPD '      |
| E208655.010       | LB204342.014 |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Lindane                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Heptachlor                              | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Aldrin                                  | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Beta BHC                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Delta BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | o,p'-DDE                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | <0.2      | 200          | 0          |
|                   |              |            | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | trans-Nonachlor                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | p,p'-DDE                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Dieldrin                                | mg/kg | 0.2 | <0.2     | <0.2      | 200          | 0          |
|                   |              |            | Endrin                                  | mg/kg | 0.2 | <0.2     | <0.2      | 200          | 0          |
|                   |              |            | o,p'-DDD                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | o,p'-DDT                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Beta Endosulfan                         | mg/kg | 0.2 | <0.2     | <0.2      | 200          | 0          |
|                   |              |            | p,p'-DDD                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | p,p'-DDT                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Methoxychlor                            | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Endrin Ketone                           | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Isodrin                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Mirex                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Total CLP OC Pesticides                 | mg/kg | 1   | <1       | <1        | 200          | 0          |
|                   |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.16     | 0.16      | 30           | 1          |
| 208655.016        | LB204342.021 |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Lindane                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Heptachlor                              | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Aldrin                                  | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Beta BHC                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Delta BHC                               | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | o,p'-DDE                                | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | <0.2      | 200          | 0          |
|                   |              |            | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |
|                   |              |            | trans-Nonachlor                         | mg/kg | 0.1 | <0.1     | <0.1      | 200          | 0          |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### OC Pesticides in Soil (continued) Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.016 | LB204342.021 |            | p,p'-DDE                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Dieldrin                                | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Endrin                                  | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | o,p'-DDD                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | o,p'-DDT                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Beta Endosulfan                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | p,p'-DDD                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | p,p'-DDT                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Methoxychlor                            | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Endrin Ketone                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Isodrin                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Mirex                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Total CLP OC Pesticides                 | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | _   | 0.15     | 0.16      | 30         | 5     |
| SE208655.025 | LB204343.019 |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Alpha BHC                               | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Lindane                                 | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Heptachlor                              | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Aldrin                                  | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Beta BHC                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Delta BHC                               | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | o,p'-DDE                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | trans-Nonachlor                         | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | p,p'-DDE                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Dieldrin                                | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Endrin                                  | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | o,p'-DDD                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | o,p'-DDT                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Beta Endosulfan                         | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | p,p'-DDD                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | p,p'-DDT                                | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Methoxychlor                            | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Endrin Ketone                           | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Isodrin                                 | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            | Mirex                                   | mg/kg | 0.1 | <0.1     | 0         | 200        | 0     |
|              |              |            |                                         |       |     |          | •         |            |       |
|              |              |            | Total CLP OC Pesticides                 | mg/kg | 1   | <1       | 0         | 200        | 0     |

#### OP Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204342.014 | Dichlorvos                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Dimethoate                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Fenitrothion                      | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Malathion                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Methidathion                      | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              | Ethion                            | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | <1.7      | 200        | 0     |
|              | Surrogates   | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4      | 0.5       | 30         | 15    |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### OP Pesticides in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|--------------|------------|-------|
| SE208655.010 | LB204342.014 | Surrogates | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.5      | 0.5          | 30         | 1     |
| SE208655.016 | LB204342.021 |            | Dichlorvos                        | mg/kg | 0.5 | <0.5     | <0.5         | 200        | 0     |
|              |              |            | Dimethoate                        | mg/kg | 0.5 | <0.5     | <0.5         | 200        | 0     |
|              |              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | <0.5         | 200        | 0     |
|              |              |            | Fenitrothion                      | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Malathion                         | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Methidathion                      | mg/kg | 0.5 | <0.5     | <0.5         | 200        | 0     |
|              |              |            | Ethion                            | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | <0.2         | 200        | 0     |
|              |              |            | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | <1.7         | 200        | 0     |
|              |              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.5      | 0.5          | 30         | 9     |
|              |              |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4      | 0.4          | 30         | 1     |
| SE208655.025 | LB204343.019 |            | Dichlorvos                        | mg/kg | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |            | Dimethoate                        | mg/kg | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | 0.0138407593 | 200        | 0     |
|              |              |            | Fenitrothion                      | mg/kg | 0.2 | <0.2     | 0.0524397049 | 200        | 0     |
|              |              |            | Malathion                         | mg/kg | 0.2 | <0.2     | 0.0245986969 | 200        | 0     |
|              |              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Methidathion                      | mg/kg | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |            | Ethion                            | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | 0            | 200        | 0     |
|              |              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4      | 0.4239250481 | 30         | 0     |
|              |              |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4      | 0.4183620820 | 30         | 0     |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                                                                                                                                  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204342.014 |            | Naphthalene                                                                                                                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | 2-methylnaphthalene                                                                                                                        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | 1-methylnaphthalene                                                                                                                        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Acenaphthylene                                                                                                                             | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Acenaphthene                                                                                                                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Fluorene                                                                                                                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Phenanthrene                                                                                                                               | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Anthracene                                                                                                                                 | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Fluoranthene                                                                                                                               | mg/kg | 0.1 | 0.2      | 0.2       | 95         | 2     |
|              |              |            | Pyrene                                                                                                                                     | mg/kg | 0.1 | 0.2      | 0.2       | 83         | 4     |
|              |              |            | Benzo(a)anthracene                                                                                                                         | mg/kg | 0.1 | <0.1     | <0.1      | 158        | 0     |
|              |              |            | Chrysene                                                                                                                                   | mg/kg | 0.1 | <0.1     | <0.1      | 163        | 0     |
|              |              |            | Benzo(b&j)fluoranthene                                                                                                                     | mg/kg | 0.1 | <0.1     | <0.1      | 141        | 0     |
|              |              |            | Benzo(k)fluoranthene                                                                                                                       | mg/kg | 0.1 | <0.1     | <0.1      | 195        | 0     |
|              |              |            | Benzo(a)pyrene                                                                                                                             | mg/kg | 0.1 | <0.1     | 0.1       | 134        | 3     |
|              |              |            | Indeno(1,2,3-cd)pyrene                                                                                                                     | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Dibenzo(ah)anthracene                                                                                                                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Benzo(ghi)perylene                                                                                                                         | mg/kg | 0.1 | <0.1     | <0.1      | 163        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>mg/kg</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>200</td><td>0</td></lor=0<>         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>mg/kg</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>133</td><td>0</td></lor=lor<>     | mg/kg | 0.3 | <0.3     | <0.3      | 133        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>mg/kg</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>146</td><td>0</td></lor=lor> | mg/kg | 0.2 | <0.2     | <0.2      | 146        | 0     |
|              |              |            | Total PAH (18)                                                                                                                             | mg/kg | 0.8 | <0.8     | <0.8      | 200        | 0     |
|              |              | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                                | mg/kg | -   | 0.4      | 0.4       | 30         | 7     |
|              |              |            | 2-fluorobiphenyl (Surrogate)                                                                                                               | mg/kg | -   | 0.4      | 0.5       | 30         | 15    |
|              |              |            | d14-p-terphenyl (Surrogate)                                                                                                                | mg/kg | -   | 0.5      | 0.5       | 30         | 1     |
| SE208655.016 | LB204342.021 |            | Naphthalene                                                                                                                                | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | 2-methylnaphthalene                                                                                                                        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | 1-methylnaphthalene                                                                                                                        | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Acenaphthylene                                                                                                                             | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                                                                                                                                | Units | LOR | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|------------|------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|----------|--------------|------------|-------|
| SE208655.016 | LB204342.021 |            | Acenaphthene                                                                                                                             | mg/kg | 0.1 | <0.1     | <0.1         | 200        | 0     |
|              |              |            | Fluorene                                                                                                                                 | mg/kg | 0.1 | <0.1     | <0.1         | 200        | 0     |
|              |              |            | Phenanthrene                                                                                                                             | mg/kg | 0.1 | <0.1     | <0.1         | 200        | 0     |
|              |              |            | Anthracene                                                                                                                               | mg/kg | 0.1 | <0.1     | <0.1         | 200        | 0     |
|              |              |            | Fluoranthene                                                                                                                             | mg/kg | 0.1 | 0.2      | 0.2          | 76         | 14    |
|              |              |            | Pyrene                                                                                                                                   | mg/kg | 0.1 | 0.3      | 0.2          | 69         | 14    |
|              |              |            | Benzo(a)anthracene                                                                                                                       | mg/kg | 0.1 | <0.1     | <0.1         | 144        | 0     |
|              |              |            | Chrysene                                                                                                                                 | mg/kg | 0.1 | <0.1     | 0.1          | 138        | 1     |
|              |              |            | Benzo(b&j)fluoranthene                                                                                                                   | mg/kg | 0.1 | 0.1      | 0.1          | 111        | 1     |
|              |              |            | Benzo(k)fluoranthene                                                                                                                     | mg/kg | 0.1 | <0.1     | <0.1         | 148        | 0     |
|              |              |            | Benzo(a)pyrene                                                                                                                           | mg/kg | 0.1 | 0.1      | 0.1          | 114        | 11    |
|              |              |            | Indeno(1,2,3-cd)pyrene                                                                                                                   | mg/kg | 0.1 | <0.1     | <0.1         | 182        | 0     |
|              |              |            | Dibenzo(ah)anthracene                                                                                                                    | mg/kg | 0.1 | <0.1     | <0.1         | 200        | 0     |
|              |              |            | Benzo(ghi)perylene                                                                                                                       | mg/kg | 0.1 | <0.1     | <0.1         | 163        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>mg/kg</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>163</td><td>0</td></lor=0<>       | mg/kg | 0.2 | <0.2     | <0.2         | 163        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>mg/kg</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>124</td><td>0</td></lor=lor<>   | mg/kg | 0.3 | <0.3     | <0.3         | 124        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>mg/kg</td><td>0.2</td><td>0.2</td><td>&lt;0.2</td><td>112</td><td>4</td></lor=lor>   | mg/kg | 0.2 | 0.2      | <0.2         | 112        | 4     |
|              |              |            | Total PAH (18)                                                                                                                           | mg/kg | 0.8 | 0.8      | <0.8         | 137        | 6     |
|              |              | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                              | mg/kg | -   | 0.4      | 0.4          | 30         | 2     |
|              |              |            | 2-fluorobiphenyl (Surrogate)                                                                                                             | mg/kg | -   | 0.5      | 0.5          | 30         | 9     |
|              |              |            | d14-p-terphenyl (Surrogate)                                                                                                              | mg/kg | -   | 0.4      | 0.4          | 30         | 1     |
| SE208655.025 | LB204343.019 |            | Naphthalene                                                                                                                              | mg/kg | 0.1 | <0.1     | 0.0003993674 | 200        | 0     |
|              |              |            | 2-methylnaphthalene                                                                                                                      | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | 1-methylnaphthalene                                                                                                                      | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Acenaphthylene                                                                                                                           | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Acenaphthene                                                                                                                             | mg/kg | 0.1 | <0.1     | 0.0002972413 | 200        | 0     |
|              |              |            | Fluorene                                                                                                                                 | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Phenanthrene                                                                                                                             | mg/kg | 0.1 | <0.1     | 0.0009925037 | 200        | 0     |
|              |              |            | Anthracene                                                                                                                               | mg/kg | 0.1 | <0.1     | 0.0010180153 | 200        | 0     |
|              |              |            | Fluoranthene                                                                                                                             | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Pyrene                                                                                                                                   | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Benzo(a)anthracene                                                                                                                       | mg/kg | 0.1 | <0.1     | 0.0050762202 | 200        | 0     |
|              |              |            | Chrysene                                                                                                                                 | mg/kg | 0.1 | <0.1     | 0.0055733592 | 200        | 0     |
|              |              |            | Benzo(b&j)fluoranthene                                                                                                                   | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Benzo(k)fluoranthene                                                                                                                     | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Benzo(a)pyrene                                                                                                                           | mg/kg | 0.1 | <0.1     | 0.0061769411 | 200        | 0     |
|              |              |            | Indeno(1,2,3-cd)pyrene                                                                                                                   | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Dibenzo(ah)anthracene                                                                                                                    | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Benzo(ghi)perylene                                                                                                                       | mg/kg | 0.1 | <0.1     | 0            | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>mg/kg</td><td>0.2</td><td>&lt;0.2</td><td>0</td><td>200</td><td>0</td></lor=0<>             | mg/kg | 0.2 | <0.2     | 0            | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>mg/kg</td><td>0.3</td><td>&lt;0.3</td><td>0.242</td><td>134</td><td>0</td></lor=lor<>     | mg/kg | 0.3 | <0.3     | 0.242        | 134        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>mg/kg</td><td>0.2</td><td>&lt;0.2</td><td>0.121</td><td>175</td><td>0</td></lor=lor> | mg/kg | 0.2 | <0.2     | 0.121        | 175        | 0     |
|              |              |            | Total PAH (18)                                                                                                                           | mg/kg | 0.8 | <0.8     | 0            | 200        | 0     |
|              |              | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                              | mg/kg | -   | 0.4      | 0.4385358031 | 30         | 2     |
|              |              |            | 2-fluorobiphenyl (Surrogate)                                                                                                             | mg/kg | -   | 0.4      | 0.4239250481 | 30         | 0     |
|              |              |            | d14-p-terphenyl (Surrogate)                                                                                                              | mg/kg | -   | 0.4      | 0.4183620820 | 30         | 0     |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204342.014 |            | Arochlor 1016                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1221                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0        | 0         | 30         | 1     |
| SE208655.016 | LB204342.021 |            | Arochlor 1016                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PCBs in Soil (continued) Method: ME-(AU)-[ENV]AN420

| •            | •            |            |                                         |       |     |          |           |            |       |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
| SE208655.016 | LB204342.021 |            | Arochlor 1221                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0        | 0         | 30         | 5     |
| SE208655.025 | LB204343.019 |            | Arochlor 1016                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1221                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | <0.2     | 0         | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | <1       | 0         | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | _   | 0        | 0.168     | 30         | 4     |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204380.014 | Arsenic, As  | mg/kg | 1   | 4        | 4         | 58         | 0     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | < 0.3    | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 11       | 12        | 34         | 6     |
|              |              | Copper, Cu   | mg/kg | 0.5 | 22       | 20        | 32         | 10    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 20       | 21        | 32         | 8     |
|              |              | Lead, Pb     | mg/kg | 1   | 15       | 13        | 37         | 11    |
|              |              | Zinc, Zn     | mg/kg | 2   | 42       | 38        | 35         | 10    |
| SE208655.019 | LB204380.024 | Arsenic, As  | mg/kg | 1   | 4        | 4         | 55         | 22    |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 16       | 14        | 33         | 10    |
|              |              | Copper, Cu   | mg/kg | 0.5 | 22       | 37        | 32         | 52 ②  |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 6.8      | 12        | 35         | 59 ②  |
|              |              | Lead, Pb     | mg/kg | 1   | 15       | 11        | 38         | 27    |
|              |              | Zinc, Zn     | mg/kg | 2   | 36       | 54        | 34         | 40 ②  |
| SE208655.020 | LB204381.014 | Arsenic, As  | mg/kg | 1   | 3        | 3         | 66         | 4     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | < 0.3    | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 15       | 15        | 33         | 2     |
|              |              | Copper, Cu   | mg/kg | 0.5 | 24       | 22        | 32         | 9     |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 18       | 18        | 33         | 3     |
|              |              | Lead, Pb     | mg/kg | 1   | 9        | 9         | 41         | 0     |
|              |              | Zinc, Zn     | mg/kg | 2   | 50       | 37        | 35         | 30    |
| SE208655.032 | LB204381.024 | Arsenic, As  | mg/kg | 1   | 6        | 6         | 46         | 2     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | < 0.3    | < 0.3     | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 7.9      | 10        | 36         | 24    |
|              |              | Copper, Cu   | mg/kg | 0.5 | 8.9      | 11        | 35         | 19    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 0.8      | 1.1       | 80         | 32    |
|              |              | Lead, Pb     | mg/kg | 1   | 14       | 15        | 37         | 10    |
|              |              | Zinc, Zn     | mg/kg | 2   | 7.8      | 9.6       | 53         | 20    |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| Original     | Duplicate    | Parameter   | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|-------|-----|----------|-----------|------------|-------|
| SE208623.001 | LB204402.014 | Lead, Pb    | μg/L  | 1   | <1       | <1        | 162        | 0     |
| SE208735.001 | LB204402.024 | Arsenic, As | μg/L  | 1   | <1       | <1        | 200        | 0     |
|              |              | Cadmium, Cd | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Copper, Cu  | μg/L  | 1   | 9        | 9         | 27         | 0     |
|              |              | Lead, Pb    | μg/L  | 1   | <1       | <1        | 200        | 0     |
|              |              | Zinc, Zn    | μg/L  | 5   | 23       | 23        | 36         | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### TRH (Total Recoverable Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    |             | Parameter                       | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|---------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204342.014 |             | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | <45      | 58        | 126        | 25    |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | 70       | 100       | 82         | 38    |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | 160       | 125        | 38    |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | 120       | 117        | 31    |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |
| SE208655.016 | LB204342.021 |             | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | <110      | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | <90       | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |
| SE208655.025 | LB204343.019 |             | TRH C10-C14                     | mg/kg | 20  | <20      | 0         | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | <45      | 0         | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | <45      | 0         | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | <100     | 0         | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | 0         | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | 0         | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | 0         | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | 0         | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | 0         | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | 0         | 200        | 0     |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| 7000 111 0011 |              |            |                                   |       |     |          |           | ( / )      | Entry arriod |
|---------------|--------------|------------|-----------------------------------|-------|-----|----------|-----------|------------|--------------|
| Original      | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD %        |
| SE208655.010  | LB204339.014 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0            |
|               |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.2      | 8.2       | 50         | 0            |
|               |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.8      | 7.9       | 50         | 2            |
|               |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.9      | 7.0       | 50         | 2            |
|               |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0            |
|               |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | <0.6      | 200        | 0            |
| SE208655.016  | LB204339.021 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0            |
|               |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.1      | 8.1       | 50         | 0            |
|               |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.7      | 7.8       | 50         | 2            |
|               |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.8      | 7.0       | 50         | 2            |
|               |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0            |
|               |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | <0.6      | 200        | 0            |
| SE208655.026  | LB204340.014 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0            |
|               |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0            |
|               |              |            |                                   |       |     |          |           |            |              |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.026 | LB204340.014 | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.4      | 8.6       | 50         | 2     |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.1      | 8.3       | 50         | 2     |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.6      | 6.9       | 50         | 4     |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | <0.6      | 200        | 0     |

#### **VOCs in Water**

#### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|--------------|------------|-------|
| SE208655.028 | LB204439.021 | Monocyclic | Benzene                           | μg/L  | 0.5 | <0.5     | 0.0382640612 | 200        | 0     |
|              |              | Aromatic   | Toluene                           | μg/L  | 0.5 | <0.5     | 0.0979003260 | 200        | 0     |
|              |              |            | Ethylbenzene                      | μg/L  | 0.5 | <0.5     | 0.0263561294 | 200        | 0     |
|              |              |            | m/p-xylene                        | μg/L  | 1   | <1       | 0.0831745044 | 200        | 0     |
|              |              |            | o-xylene                          | μg/L  | 0.5 | <0.5     | 0.0229546623 | 200        | 0     |
|              |              | Polycyclic | Naphthalene                       | μg/L  | 0.5 | <0.5     | 0.0149147828 | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 11.0     | 9.2838098028 | 30         | 17    |
|              |              |            | d8-toluene (Surrogate)            | μg/L  | -   | 9.6      | 9.8057867667 | 30         | 2     |
|              |              |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 9.8      | 9.6692785559 | 30         | 1     |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208655.010 | LB204339.014 |             | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.2      | 8.2       | 30         | 0     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 7.8      | 7.9       | 30         | 2     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.9      | 7.0       | 30         | 2     |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |
| SE208655.016 | LB204339.021 |             | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.1      | 8.1       | 30         | 0     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 7.7      | 7.8       | 30         | 2     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.8      | 7.0       | 30         | 2     |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |
| SE208655.026 | LB204340.014 |             | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.4      | 8.6       | 30         | 2     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 8.1      | 8.3       | 30         | 2     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.6      | 6.9       | 30         | 4     |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                         | Units | LOR | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|-------------|-----------------------------------|-------|-----|----------|--------------|------------|-------|
| SE208655.028 | LB204439.021 |             | TRH C6-C10                        | μg/L  | 50  | <50      | 0.7730206168 | 200        | 0     |
|              |              |             | TRH C6-C9                         | μg/L  | 40  | <40      | 0.3352740386 | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 11.0     | 9.2838098028 | 30         | 17    |
|              |              |             | d8-toluene (Surrogate)            | μg/L  | -   | 9.6      | 9.8057867667 | 30         | 2     |
|              |              |             | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 9.8      | 9.6692785559 | 30         | 1     |
|              |              | VPH F Bands | Benzene (F0)                      | μg/L  | 0.5 | <0.5     | 0.0382640612 | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | μg/L  | 50  | <50      | 0.7730206168 | 200        | 0     |
| SE208690.001 | LB204439.022 | Surrogates  | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 0.0      | 0.0          | 30         | 12    |
|              |              |             | d8-toluene (Surrogate)            | μg/L  | -   | 0.0      | 0.0          | 30         | 0     |
|              |              |             | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 0.0      | 0.0          | 30         | 1     |
|              |              | VPH F Bands | Benzene (F0)                      | μg/L  | 0.5 | <0.5     | <0.5         | 200        | 0     |

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#### LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Mercury in Soil Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB204384.002  | Mercury   | mg/kg | 0.05 | 0.23   | 0.2      | 70 - 130   | 116        |
| LB204386.002  | Mercury   | mg/kg | 0.05 | 0.23   | 0.2      | 70 - 130   | 114        |

#### OC Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Sample Number |            | Parameter                               | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------------|-------|-----|--------|----------|------------|------------|
| LB204342.002  |            | Heptachlor                              | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 88         |
|               |            | Aldrin                                  | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 86         |
|               |            | Delta BHC                               | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 83         |
|               |            | Dieldrin                                | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 85         |
|               |            | Endrin                                  | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 86         |
|               |            | p,p'-DDT                                | mg/kg | 0.1 | 0.1    | 0.2      | 60 - 140   | 72         |
|               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.14   | 0.15     | 40 - 130   | 91         |
| LB204343.002  |            | Heptachlor                              | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 89         |
|               |            | Aldrin                                  | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 90         |
|               |            | Delta BHC                               | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 87         |
|               |            | Dieldrin                                | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 90         |
|               |            | Endrin                                  | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 85         |
|               |            | p,p'-DDT                                | mg/kg | 0.1 | 0.1    | 0.2      | 60 - 140   | 74         |
|               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.14   | 0.15     | 40 - 130   | 93         |

#### **OP Pesticides in Soil**

#### Method: ME-(AU)-[ENV]AN420 Sample Number Result Expected Criteria % Recovery % Parameter LB204342.002 Dichlorvos mg/kg 60 - 140

|              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.7 | 2   | 60 - 140 | 84 |
|--------------|------------|-----------------------------------|-------|-----|-----|-----|----------|----|
|              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.7 | 2   | 60 - 140 | 87 |
|              |            | Ethion                            | mg/kg | 0.2 | 1.3 | 2   | 60 - 140 | 66 |
|              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4 | 0.5 | 40 - 130 | 86 |
|              |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4 | 0.5 | 40 - 130 | 79 |
| LB204343.002 |            | Dichlorvos                        | mg/kg | 0.5 | 1.8 | 2   | 60 - 140 | 89 |
|              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.3 | 2   | 60 - 140 | 64 |
|              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.4 | 2   | 60 - 140 | 69 |
|              |            | Ethion                            | mg/kg | 0.2 | 1.3 | 2   | 60 - 140 | 63 |
|              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4 | 0.5 | 40 - 130 | 82 |
|              |            | d14-n-ternhenyl (Surrogate)       | ma/ka | _   | 0.4 | 0.5 | 40 - 130 | 74 |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Naphthalene   mg/kg   0.1   4.2   4   60 - 140   104                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |            |                              |       |     |        |          |            |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|------------------------------|-------|-----|--------|----------|------------|------------|
| Acenaphthylene   mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sample Number | r          | Parameter                    | Units | LOR | Result | Expected | Criteria % | Recovery % |
| Acenaphthene   mg/kg   0.1   4.1   4   60 - 140   103     Phenanthrene   mg/kg   0.1   4.0   4   60 - 140   100     Anthracene   mg/kg   0.1   4.0   4   60 - 140   107     Fluoranthene   mg/kg   0.1   4.0   4   60 - 140   107     Fluoranthene   mg/kg   0.1   4.0   4   60 - 140   100     Pyrene   mg/kg   0.1   4.0   4   60 - 140   108     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Gantiphanerene (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   86     Gantiphanerene (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   86     Gantiphanerene   mg/kg   0.1   4.1   4   60 - 140   102     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   102     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   102     Acenaphthene   mg/kg   0.1   4.1   4   60 - 140   102     Anthracene   mg/kg   0.1   4.1   4   60 - 140   102     Anthracene   mg/kg   0.1   4.1   4   60 - 140   102     Anthracene   mg/kg   0.1   3.9   4   60 - 140   102     Anthracene   mg/kg   0.1   3.9   4   60 - 140   102     Anthracene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   3.9   4   60 - 140   104     Fluoranthene   mg/kg   0.1   3.9   3.0   3.0   3.0   3.0   3.0     Fluoranthene   mg/kg   0.1   3.9   3.0    | LB204342.002  |            | Naphthalene                  | mg/kg | 0.1 | 4.2    | 4        | 60 - 140   | 104        |
| Phenathrene   mg/kg   0.1   4.0   4   60 - 140   100     Anthracene   mg/kg   0.1   4.3   4   60 - 140   107     Fluoranthene   mg/kg   0.1   4.3   4   60 - 140   107     Fluoranthene   mg/kg   0.1   4.0   4   60 - 140   100     Pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Pyrene   mg/kg   0.1   4.0   4   60 - 140   108     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   108     Surrogates   d5-nitrobenzene (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   86     2-fluorobiphenyl (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   86     414-p-terphenyl (Surrogate)   mg/kg   0.1   4.1   4   60 - 140   102     Benzo(a)pyrene   mg/kg   0.1   4.1   4   60 - 140   102     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   105     Acenaphthene   mg/kg   0.1   4.1   4   60 - 140   105     Phenanthrene   mg/kg   0.1   4.1   4   60 - 140   105     Phenanthrene   mg/kg   0.1   3.9   4   60 - 140   98     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.0   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.2   4   60 - 140   97     Pyrene   mg/kg   0.1   4.0   4   60 - 140   97     Pyrene   mg/kg   0.1   4.0   4   60 - 140   97     Pyrene   mg/kg   0.1   4.0   4   60 - 140  |               |            | Acenaphthylene               | mg/kg | 0.1 | 4.3    | 4        | 60 - 140   | 107        |
| Anthracene   mg/kg   0.1   4.3   4   60 - 140   107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |            | Acenaphthene                 | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 103        |
| Fluoranthene   mg/kg   0.1   4.0   4   60 - 140   100     Pyrene   mg/kg   0.1   4.3   4   60 - 140   108     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   108     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Surrogates   d5-nitrobenzene (Surrogate)   mg/kg   -   0.4   0.5   40 - 130   86     2-fluorobiphenyl (Surrogate)   mg/kg   -   0.4   0.5   40 - 130   86     2-fluorobiphenyl (Surrogate)   mg/kg   -   0.4   0.5   40 - 130   86     2-fluorobiphenyl (Surrogate)   mg/kg   -   0.4   0.5   40 - 130   87     3-fluoranthene   mg/kg   0.1   4.1   4   60 - 140   102     3-fluoranthene   mg/kg   0.1   4.0   4   60 - 140   102     3-fluoranthene   mg/kg   0.1   4.1   4   60 - 140   102     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   102     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1   3.9   4   60 - 140   98     3-fluoranthene   mg/kg   0.1    |               |            | Phenanthrene                 | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 100        |
| Pyrene   mg/kg   0.1   4.3   4   60 - 140   108     Benzo(a)pyrene   mg/kg   0.1   4.0   4   60 - 140   100     Surrogates   d5-nitrobenzene (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   90     2-fluorobiphenyl (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   86     d14-p-terphenyl (Surrogate)   mg/kg   - 0.4   0.5   40 - 130   79     LB204343.002   Mg/kg   0.1   4.1   4   60 - 140   102     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   99     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   105     Acenaphthylene   mg/kg   0.1   4.1   4   60 - 140   105     Phenanthrene   mg/kg   0.1   4.1   4   60 - 140   105     Anthracene   mg/kg   0.1   3.9   4   60 - 140   98     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   97     Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140   97     Fluoranthene   mg/kg   0.1   4.2   4   60 - 140 |               |            | Anthracene                   | mg/kg | 0.1 | 4.3    | 4        | 60 - 140   | 107        |
| Benzo(a)pyrene   mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |            | Fluoranthene                 | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 100        |
| Surrogates   d5-nitrobenzene (Surrogate)   mg/kg   -   0.4   0.5   40 - 130   90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |            | Pyrene                       | mg/kg | 0.1 | 4.3    | 4        | 60 - 140   | 108        |
| 2-fluorobiphenyl (Surrogate)   mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |            | Benzo(a)pyrene               | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 100        |
| Maphthalene    |               | Surrogates | d5-nitrobenzene (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 90         |
| Naphthalene   mg/kg   0.1   4.1   4   60 - 140   102                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |            | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 86         |
| Acenaphthylene mg/kg 0.1 4.0 4 60 - 140 99 Acenaphthene mg/kg 0.1 4.2 4 60 - 140 105 Phenanthrene mg/kg 0.1 4.1 4 60 - 140 102 Anthracene mg/kg 0.1 3.9 4 60 - 140 98 Fluoranthene mg/kg 0.1 3.9 4 60 - 140 97 Pyrene mg/kg 0.1 3.9 4 60 - 140 97 Pyrene mg/kg 0.1 4.0 4 60 - 140 101 Benzo(a)pyrene mg/kg 0.1 4.2 4 60 - 140 101 Surrogates d5-nitrobenzene (Surrogate) mg/kg - 0.4 0.5 40 - 130 75 2-fluorobiphenyl (Surrogate) mg/kg - 0.4 0.5 40 - 130 82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |            | d14-p-terphenyl (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 79         |
| Acenaphthene         mg/kg         0.1         4.2         4         60 - 140         105           Phenanthrene         mg/kg         0.1         4.1         4         60 - 140         102           Anthracene         mg/kg         0.1         3.9         4         60 - 140         98           Fluoranthene         mg/kg         0.1         3.9         4         60 - 140         97           Pyrene         mg/kg         0.1         4.0         4         60 - 140         101           Benzo(a)pyrene         mg/kg         0.1         4.2         4         60 - 140         106           Surrogates         d5-nitrobenzene (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         75           2-fluorobiphenyl (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LB204343.002  |            | Naphthalene                  | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 102        |
| Phenanthrene         mg/kg         0.1         4.1         4         60 - 140         102           Anthracene         mg/kg         0.1         3.9         4         60 - 140         98           Fluoranthene         mg/kg         0.1         3.9         4         60 - 140         97           Pyrene         mg/kg         0.1         4.0         4         60 - 140         101           Benzo(a)pyrene         mg/kg         0.1         4.2         4         60 - 140         106           Surrogates         d5-nitrobenzene (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         75           2-fluorobiphenyl (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |            | Acenaphthylene               | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 99         |
| Anthracene mg/kg 0.1 3.9 4 60 - 140 98 Fluoranthene mg/kg 0.1 3.9 4 60 - 140 97  Pyrene mg/kg 0.1 4.0 4 60 - 140 101  Benzo(a)pyrene mg/kg 0.1 4.2 4 60 - 140 106  Surrogates d5-nitrobenzene (Surrogate) mg/kg - 0.4 0.5 40 - 130 75  2-fluorobiphenyl (Surrogate) mg/kg - 0.4 0.5 40 - 130 82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |            | Acenaphthene                 | mg/kg | 0.1 | 4.2    | 4        | 60 - 140   | 105        |
| Fluoranthene   mg/kg   0.1   3.9   4   60 - 140   97                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |            | Phenanthrene                 | mg/kg | 0.1 | 4.1    | 4        | 60 - 140   | 102        |
| Pyrene         mg/kg         0.1         4.0         4         60 - 140         101           Benzo(a)pyrene         mg/kg         0.1         4.2         4         60 - 140         106           Surrogates         d5-nitrobenzene (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         75           2-fluorobiphenyl (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |            | Anthracene                   | mg/kg | 0.1 | 3.9    | 4        | 60 - 140   | 98         |
| Benzo(a)pyrene         mg/kg         0.1         4.2         4         60 - 140         106           Surrogates         d5-nitrobenzene (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         75           2-fluorobiphenyl (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |            | Fluoranthene                 | mg/kg | 0.1 | 3.9    | 4        | 60 - 140   | 97         |
| Surrogates         d5-nitrobenzene (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         75           2-fluorobiphenyl (Surrogate)         mg/kg         -         0.4         0.5         40 - 130         82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |            | Pyrene                       | mg/kg | 0.1 | 4.0    | 4        | 60 - 140   | 101        |
| 2-fluorobiphenyl (Surrogate) mg/kg - 0.4 0.5 40 - 130 82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |            | Benzo(a)pyrene               | mg/kg | 0.1 | 4.2    | 4        | 60 - 140   | 106        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               | Surrogates | d5-nitrobenzene (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 75         |
| d14-p-terphenyl (Surrogate) mg/kg - 0.4 0.5 40 - 130 74                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |            | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 82         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |            | d14-p-terphenyl (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 74         |

#### PCBs in Soil

Sample Numb Units LOR Method: ME-(AU)-[ENV]AN420

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#### LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| PCBs in Soil (continued | d) | Method: ME-(AU)-[ENV]AN420 |
|-------------------------|----|----------------------------|
|                         |    |                            |

| Sample Number | Parameter     | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|---------------|-------|-----|--------|----------|------------|------------|
| LB204342.002  | Arochlor 1260 | mg/kg | 0.2 | 0.3    | 0.4      | 60 - 140   | 77         |
| LB204343.002  | Arochlor 1260 | mg/kg | 0.2 | 0.3    | 0.4      | 60 - 140   | 73         |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|--------------|-------|-----|--------|----------|------------|------------|
| LB204380.002  | Arsenic, As  | mg/kg | 1   | 330    | 318.22   | 80 - 120   | 105        |
|               | Cadmium, Cd  | mg/kg | 0.3 | 5.5    | 5.41     | 80 - 120   | 102        |
|               | Chromium, Cr | mg/kg | 0.5 | 43     | 38.31    | 80 - 120   | 111        |
|               | Copper, Cu   | mg/kg | 0.5 | 300    | 290      | 80 - 120   | 103        |
|               | Nickel, Ni   | mg/kg | 0.5 | 190    | 187      | 80 - 120   | 103        |
|               | Lead, Pb     | mg/kg | 1   | 93     | 89.9     | 80 - 120   | 103        |
|               | Zinc, Zn     | mg/kg | 2   | 270    | 273      | 80 - 120   | 100        |
| LB204381.002  | Arsenic, As  | mg/kg | 1   | 330    | 318.22   | 80 - 120   | 105        |
|               | Cadmium, Cd  | mg/kg | 0.3 | 5.6    | 5.41     | 80 - 120   | 104        |
|               | Chromium, Cr | mg/kg | 0.5 | 40     | 38.31    | 80 - 120   | 104        |
|               | Copper, Cu   | mg/kg | 0.5 | 300    | 290      | 80 - 120   | 105        |
|               | Nickel, Ni   | mg/kg | 0.5 | 190    | 187      | 80 - 120   | 103        |
|               | Lead, Pb     | mg/kg | 1   | 93     | 89.9     | 80 - 120   | 104        |
|               | Zinc, Zn     | mg/kg | 2   | 280    | 273      | 80 - 120   | 102        |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|--------------|-------|-----|--------|----------|------------|------------|
| LB204402.002  | Arsenic, As  | μg/L  | 1   | 19     | 20       | 80 - 120   | 94         |
|               | Cadmium, Cd  | μg/L  | 0.1 | 21     | 20       | 80 - 120   | 103        |
|               | Chromium, Cr | μg/L  | 1   | 22     | 20       | 80 - 120   | 108        |
|               | Copper, Cu   | μg/L  | 1   | 22     | 20       | 80 - 120   | 110        |
|               | Lead, Pb     | μg/L  | 1   | 20     | 20       | 80 - 120   | 101        |
|               | Nickel, Ni   | μg/L  | 1   | 21     | 20       | 80 - 120   | 104        |
|               | Zinc, Zn     | μg/L  | 5   | 22     | 20       | 80 - 120   | 109        |
|               |              | F8-   |     |        |          |            |            |

#### TRH (Total Recoverable Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN403

| Sample Number |             | Parameter         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|-------------------|-------|-----|--------|----------|------------|------------|
| LB204342.002  |             | TRH C10-C14       | mg/kg | 20  | 37     | 40       | 60 - 140   | 93         |
|               |             | TRH C15-C28       | mg/kg | 45  | <45    | 40       | 60 - 140   | 78         |
|               |             | TRH C29-C36       | mg/kg | 45  | <45    | 40       | 60 - 140   | 85         |
|               | TRH F Bands | TRH >C10-C16      | mg/kg | 25  | 36     | 40       | 60 - 140   | 90         |
|               |             | TRH >C16-C34 (F3) | mg/kg | 90  | <90    | 40       | 60 - 140   | 78         |
|               |             | TRH >C34-C40 (F4) | mg/kg | 120 | <120   | 20       | 60 - 140   | 85         |
| LB204343.002  |             | TRH C10-C14       | mg/kg | 20  | 47     | 40       | 60 - 140   | 118        |
|               |             | TRH C15-C28       | mg/kg | 45  | <45    | 40       | 60 - 140   | 110        |
|               |             | TRH C29-C36       | mg/kg | 45  | <45    | 40       | 60 - 140   | 98         |
|               | TRH F Bands | TRH >C10-C16      | mg/kg | 25  | 49     | 40       | 60 - 140   | 123        |
|               |             | TRH >C16-C34 (F3) | mg/kg | 90  | <90    | 40       | 60 - 140   | 100        |
|               |             | TRH >C34-C40 (F4) | mg/kg | 120 | <120   | 20       | 60 - 140   | 95         |

#### TRH (Total Recoverable Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN403

| 1141 (1044114000101 | abic Hydrodarbo | no) in vvator     |    |       |     |        |          | outou. INE (/ te | 5) [E144] 14400 |
|---------------------|-----------------|-------------------|----|-------|-----|--------|----------|------------------|-----------------|
| Sample Number       |                 | Parameter         | ι  | Jnits | LOR | Result | Expected | Criteria %       | Recovery %      |
| LB204298.002        |                 | TRH C10-C14       | μι | g/L   | 50  | 890    | 1200     | 60 - 140         | 74              |
|                     |                 | TRH C15-C28       | μς | g/L   | 200 | 1100   | 1200     | 60 - 140         | 95              |
|                     |                 | TRH C29-C36       | μς | g/L   | 200 | 1300   | 1200     | 60 - 140         | 107             |
|                     | TRH F Bands     | TRH >C10-C16      | μς | g/L   | 60  | 1000   | 1200     | 60 - 140         | 83              |
|                     |                 | TRH >C16-C34 (F3) | μς | g/L   | 500 | 1400   | 1200     | 60 - 140         | 113             |
|                     |                 | TRH >C34-C40 (F4) | uc | n/I   | 500 | 610    | 600      | 60 - 140         | 101             |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number | r          | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204339.002  | Monocyclic | Benzene                           | mg/kg | 0.1 | 3.4    | 5        | 60 - 140   | 68         |
|               | Aromatic   | Toluene                           | mg/kg | 0.1 | 3.4    | 5        | 60 - 140   | 67         |
|               |            | Ethylbenzene                      | mg/kg | 0.1 | 4.1    | 5        | 60 - 140   | 82         |
|               |            | m/p-xylene                        | mg/kg | 0.2 | 8.2    | 10       | 60 - 140   | 82         |
|               |            | o-xylene                          | mg/kg | 0.1 | 4.1    | 5        | 60 - 140   | 82         |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.1    | 10       | 70 - 130   | 91         |

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## LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| VOC's in Soil (continued) | Method: ME_(ALI)_IENV/IAN433 |
|---------------------------|------------------------------|

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204339.002  | Surrogates | d8-toluene (Surrogate)            | mg/kg | -   | 8.8    | 10       | 70 - 130   | 88         |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.1    | 10       | 70 - 130   | 71         |
| LB204340.002  | Monocyclic | Benzene                           | mg/kg | 0.1 | 5.2    | 5        | 60 - 140   | 104        |
|               | Aromatic   | Toluene                           | mg/kg | 0.1 | 5.1    | 5        | 60 - 140   | 102        |
|               |            | Ethylbenzene                      | mg/kg | 0.1 | 5.2    | 5        | 60 - 140   | 104        |
|               |            | m/p-xylene                        | mg/kg | 0.2 | 10     | 10       | 60 - 140   | 104        |
|               |            | o-xylene                          | mg/kg | 0.1 | 5.2    | 5        | 60 - 140   | 103        |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.2    | 10       | 70 - 130   | 92         |
|               |            | d8-toluene (Surrogate)            | mg/kg | -   | 9.2    | 10       | 70 - 130   | 92         |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.8    | 10       | 70 - 130   | 78         |

#### **VOCs in Water** Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204439.002  | Monocyclic | Benzene                           | μg/L  | 0.5 | 45     | 45.45    | 60 - 140   | 100        |
|               | Aromatic   | Toluene                           | μg/L  | 0.5 | 47     | 45.45    | 60 - 140   | 104        |
|               |            | Ethylbenzene                      | μg/L  | 0.5 | 47     | 45.45    | 60 - 140   | 103        |
|               |            | m/p-xylene                        | μg/L  | 1   | 94     | 90.9     | 60 - 140   | 103        |
|               |            | o-xylene                          | μg/L  | 0.5 | 48     | 45.45    | 60 - 140   | 107        |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 9.5    | 10       | 60 - 140   | 95         |
|               |            | d8-toluene (Surrogate)            | μg/L  | -   | 9.9    | 10       | 70 - 130   | 99         |
|               |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.0   | 10       | 70 - 130   | 100        |

| Volatile Petroleum F | ttile Petroleum Hydrocarbons in Soil  Method: ME-{AU}-[ENV]AN433 |                                   |       |     |        |          |            |            |  |
|----------------------|------------------------------------------------------------------|-----------------------------------|-------|-----|--------|----------|------------|------------|--|
| Sample Number        |                                                                  | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |  |
| LB204339.002         |                                                                  | TRH C6-C10                        | mg/kg | 25  | 67     | 92.5     | 60 - 140   | 72         |  |
|                      |                                                                  | TRH C6-C9                         | mg/kg | 20  | 58     | 80       | 60 - 140   | 72         |  |
|                      | Surrogates                                                       | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.1    | 10       | 70 - 130   | 91         |  |

|              | Surrogates  | d4-1,2-dichioroethane (Surrogate) | mg/kg | -  | 9.1 | 10   | 70 - 130 | 91 |
|--------------|-------------|-----------------------------------|-------|----|-----|------|----------|----|
|              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -  | 7.1 | 10   | 70 - 130 | 71 |
|              | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25 | 44  | 62.5 | 60 - 140 | 70 |
| LB204340.002 |             | TRH C6-C10                        | mg/kg | 25 | 72  | 92.5 | 60 - 140 | 78 |
|              |             | TRH C6-C9                         | mg/kg | 20 | 62  | 80   | 60 - 140 | 78 |
|              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -  | 9.2 | 10   | 70 - 130 | 92 |
|              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -  | 7.8 | 10   | 70 - 130 | 78 |
|              | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | ma/ka | 25 | 41  | 62.5 | 60 - 140 | 65 |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |             | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204439.002  |             | TRH C6-C10                        | μg/L  | 50  | 920    | 946.63   | 60 - 140   | 98         |
|               |             | TRH C6-C9                         | μg/L  | 40  | 830    | 818.71   | 60 - 140   | 102        |
|               | Surrogates  | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 9.5    | 10       | 60 - 140   | 95         |
|               |             | d8-toluene (Surrogate)            | μg/L  | -   | 9.9    | 10       | 70 - 130   | 99         |
|               |             | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.0   | 10       | 70 - 130   | 100        |
|               | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | ua/L  | 50  | 640    | 639.67   | 60 - 140   | 100        |

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SE208655 R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury (dissolved) in Water

#### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| QC Sample    | Sample Number | Parameter | Units | LOR    | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|--------|--------|----------|-------|-----------|
| SE208589.037 | LB204300.004  | Mercury   | mg/L  | 0.0001 | 0.0082 | <0.0001  | 0.008 | 102       |

#### Mercury in Soil

#### Method: ME-(AU)-[ENV]AN312

| QC Sample    | Sample Number | Parameter | Units | LOR  | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|------|--------|----------|-------|-----------|
| SE208655.001 | LB204384.004  | Mercury   | mg/kg | 0.05 | 0.22   | <0.05    | 0.2   | 104       |
| SE208714.001 | LB204386.004  | Mercury   | mg/kg | 0.05 | 0.22   | <0.05    | 0.2   | 105       |

#### OC Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                               | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204342.004  |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Alpha BHC                               | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Lindane                                 | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Heptachlor                              | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 102       |
|              |               |            | Aldrin                                  | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 97        |
|              |               |            | Beta BHC                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Delta BHC                               | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 95        |
|              |               |            | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | o,p'-DDE                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Gamma Chlordane                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Alpha Chlordane                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | trans-Nonachlor                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | p,p'-DDE                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Dieldrin                                | mg/kg | 0.2 | <0.2   | <0.2     | 0.2   | 96        |
|              |               |            | Endrin                                  | mg/kg | 0.2 | <0.2   | <0.2     | 0.2   | 99        |
|              |               |            | o,p'-DDD                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | o,p'-DDT                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Beta Endosulfan                         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | p,p'-DDD                                | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | p,p'-DDT                                | mg/kg | 0.1 | 0.2    | <0.1     | 0.2   | 86        |
|              |               |            | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Methoxychlor                            | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Endrin Ketone                           | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Isodrin                                 | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |            | Mirex                                   | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              | _             |            | Total CLP OC Pesticides                 | mg/kg | 1   | 1      | <1       | -     | -         |
|              |               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.15   | 0.15     | -     | 101       |

#### OP Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204342.004  | Dichlorvos                        | mg/kg | 0.5 | 1.5    | <0.5     | 2     | 73        |
|              |               | Dimethoate                        | mg/kg | 0.5 | <0.5   | <0.5     | -     | -         |
|              |               | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.8    | <0.5     | 2     | 89        |
|              |               | Fenitrothion                      | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Malathion                         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.8    | <0.2     | 2     | 88        |
|              |               | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Methidathion                      | mg/kg | 0.5 | <0.5   | <0.5     | -     | -         |
|              |               | Ethion                            | mg/kg | 0.2 | 1.3    | <0.2     | 2     | 63        |
|              |               | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               | Total OP Pesticides*              | mg/kg | 1.7 | 6.3    | <1.7     | -     | -         |
|              | Surrogates    | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4    | 0.5      | -     | 83        |
|              |               | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4    | 0.5      | -     | 80        |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

QC Sample Sample Number Parameter Units LOR

Method: ME-(AU)-[ENV]AN420

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

|              |               | ······································ |                                                                                                                                            |             |     |        |          |       |           |
|--------------|---------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------|----------|-------|-----------|
| QC Sample    | Sample Number |                                        | Parameter                                                                                                                                  | Units       | LOR | Result | Original | Spike | Recovery% |
| SE208655.001 | LB204342.004  |                                        | Naphthalene                                                                                                                                | mg/kg       | 0.1 | 4.1    | <0.1     | 4     | 101       |
|              |               |                                        | 2-methylnaphthalene                                                                                                                        | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | 1-methylnaphthalene                                                                                                                        | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Acenaphthylene                                                                                                                             | mg/kg       | 0.1 | 4.0    | <0.1     | 4     | 100       |
|              |               |                                        | Acenaphthene                                                                                                                               | mg/kg       | 0.1 | 4.0    | <0.1     | 4     | 101       |
|              |               |                                        | Fluorene                                                                                                                                   | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Phenanthrene                                                                                                                               | mg/kg       | 0.1 | 3.9    | <0.1     | 4     | 97        |
|              |               |                                        | Anthracene                                                                                                                                 | mg/kg       | 0.1 | 4.1    | <0.1     | 4     | 101       |
|              |               |                                        | Fluoranthene                                                                                                                               | mg/kg       | 0.1 | 4.1    | <0.1     | 4     | 100       |
|              |               |                                        | Pyrene                                                                                                                                     | mg/kg       | 0.1 | 4.2    | <0.1     | 4     | 104       |
|              |               |                                        | Benzo(a)anthracene                                                                                                                         | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Chrysene                                                                                                                                   | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Benzo(b&j)fluoranthene                                                                                                                     | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Benzo(k)fluoranthene                                                                                                                       | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Benzo(a)pyrene                                                                                                                             | mg/kg       | 0.1 | 3.9    | <0.1     | 4     | 97        |
|              |               |                                        | Indeno(1,2,3-cd)pyrene                                                                                                                     | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Dibenzo(ah)anthracene                                                                                                                      | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Benzo(ghi)perylene                                                                                                                         | mg/kg       | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               |                                        | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>3.9</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=0<>         | TEQ (mg/kg) | 0.2 | 3.9    | <0.2     | -     | -         |
|              |               |                                        | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>4.0</td><td>&lt;0.3</td><td>-</td><td>-</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | 4.0    | <0.3     | -     | -         |
|              |               |                                        | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>4.0</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=lor> | TEQ (mg/kg) | 0.2 | 4.0    | <0.2     | -     | -         |
|              | _             |                                        | Total PAH (18)                                                                                                                             | mg/kg       | 0.8 | 32     | <0.8     | -     | -         |
|              |               | Surrogates                             | d5-nitrobenzene (Surrogate)                                                                                                                | mg/kg       | -   | 0.4    | 0.4      | -     | 86        |
|              |               |                                        | 2-fluorobiphenyl (Surrogate)                                                                                                               | mg/kg       | -   | 0.4    | 0.5      | -     | 83        |
|              |               |                                        | d14-p-terphenyl (Surrogate)                                                                                                                | mg/kg       | -   | 0.4    | 0.5      | -     | 80        |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                               | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204342.004  |            | Arochlor 1016                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1221                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1232                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1242                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1248                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1254                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1260                           | mg/kg | 0.2 | 0.3    | <0.2     | 0.4   | 84        |
|              |               |            | Arochlor 1262                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Arochlor 1268                           | mg/kg | 0.2 | <0.2   | <0.2     | -     | -         |
|              |               |            | Total PCBs (Arochlors)                  | mg/kg | 1   | <1     | <1       | -     | -         |
|              |               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0      | 0        | -     | 101       |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204380.004  | Arsenic, As  | mg/kg | 1   | 51     | 4        | 50    | 95        |
|              |               | Cadmium, Cd  | mg/kg | 0.3 | 43     | <0.3     | 50    | 86        |
|              |               | Chromium, Cr | mg/kg | 0.5 | 64     | 11       | 50    | 106       |
|              |               | Copper, Cu   | mg/kg | 0.5 | 69     | 24       | 50    | 90        |
|              |               | Nickel, Ni   | mg/kg | 0.5 | 59     | 13       | 50    | 92        |
|              |               | Lead, Pb     | mg/kg | 1   | 56     | 12       | 50    | 89        |
|              |               | Zinc, Zn     | mg/kg | 2   | 180    | 34       | 50    | 287 ④     |
| SE208714.001 | LB204381.005  | Arsenic, As  | mg/kg | 1   |        | 3        | 50    | 83        |
|              |               | Cadmium, Cd  | mg/kg | 0.3 |        | <0.3     | 50    | 78        |
|              |               | Chromium, Cr | mg/kg | 0.5 |        | 4.1      | 50    | 86        |
|              |               | Copper, Cu   | mg/kg | 0.5 |        | 11       | 50    | 83        |
|              |               | Nickel, Ni   | mg/kg | 0.5 |        | 4.0      | 50    | 87        |
|              |               | Lead, Pb     | mg/kg | 1   | 53     | 19       | 50    | 67 †      |
|              |               | Zinc, Zn     | mg/kg | 2   |        | 26       | 50    | 80        |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE208484A.00 | LB204402.004  | Arsenic, As  | μg/L  | 1   | 21     | <1       | 20    | 104       |
| 1            |               | Cadmium, Cd  | μg/L  | 0.1 | 21     | <0.1     | 20    | 106       |
|              |               | Chromium, Cr | μg/L  | 1   | 22     | <1       | 20    | 110       |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Trace Metals (Dissolved) in Water by ICPMS (continued)

#### Method: ME-(AU)-[ENV]AN318

| QC Sample    | Sample Number | Parameter  | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-------|-----|--------|----------|-------|-----------|
| SE208484A.00 | LB204402.004  | Copper, Cu | μg/L  | 1   | 26     | 4        | 20    | 110       |
| 1            |               | Lead, Pb   | μg/L  | 1   | 21     | <1       | 20    | 105       |
|              |               | Zinc, Zn   | μg/L  | 5   | 81     | 61       | 20    | 102       |

#### TRH (Total Recoverable Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number |             | Parameter                       | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-------------|---------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204342.004  |             | TRH C10-C14                     | mg/kg | 20  | 43     | <20      | 40    | 108       |
|              |               |             | TRH C15-C28                     | mg/kg | 45  | <45    | <45      | 40    | 85        |
|              |               |             | TRH C29-C36                     | mg/kg | 45  | <45    | <45      | 40    | 93        |
|              |               |             | TRH C37-C40                     | mg/kg | 100 | <100   | <100     | -     | -         |
|              |               |             | TRH C10-C36 Total               | mg/kg | 110 | <110   | <110     | -     | -         |
|              |               |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210   | <210     | -     | -         |
|              |               | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | 40     | <25      | 40    | 100       |
|              |               |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 40     | <25      | -     | -         |
|              |               |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90    | <90      | 40    | 88        |
|              |               |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120   | <120     | -     | -         |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Numbe | r          | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|--------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.001 | LB204339.004 | Monocyclic | Benzene                           | mg/kg | 0.1 | 3.4    | <0.1     | 5     | 68        |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | 3.4    | <0.1     | 5     | 68        |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | 4.2    | <0.1     | 5     | 84        |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | 8.5    | <0.2     | 10    | 85        |
|              |              |            | o-xylene                          | mg/kg | 0.1 | 4.2    | <0.1     | 5     | 85        |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.5    | 8.3      | 10    | 85        |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.9    | 8.0      | 10    | 79        |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.5    | 7.1      | 10    | 65 ①      |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | 13     | <0.3     | -     | -         |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | 24     | <0.6     | -     | -         |
| SE208655.017 | LB204340.004 | Monocyclic | Benzene                           | mg/kg | 0.1 | 4.4    | <0.1     | 5     | 89        |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | 4.4    | <0.1     | 5     | 88        |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | 4.5    | <0.1     | 5     | 91        |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | 9.1    | <0.2     | 10    | 91        |
|              |              |            | o-xylene                          | mg/kg | 0.1 | 4.5    | <0.1     | 5     | 90        |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.9    | 8.7      | 10    | 79        |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.9    | 8.4      | 10    | 79        |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.7    | 7.1      | 10    | 67 ①      |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | 14     | <0.3     | -     | -         |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | 27     | <0.6     | -     | -         |

#### **VOCs in Water**

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number | r          | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208484A.00 | LB204439.023  | Monocyclic | Benzene                           | μg/L  | 0.5 | 48     | <0.5     | 45.45 | 106       |
| 9            |               | Aromatic   | Toluene                           | μg/L  | 0.5 | 47     | <0.5     | 45.45 | 103       |
|              |               |            | Ethylbenzene                      | μg/L  | 0.5 | 47     | <0.5     | 45.45 | 104       |
|              |               |            | m/p-xylene                        | μg/L  | 1   | 95     | <1       | 90.9  | 105       |
|              |               |            | o-xylene                          | μg/L  | 0.5 | 47     | <0.5     | 45.45 | 103       |
|              |               | Polycyclic | Naphthalene                       | μg/L  | 0.5 | 43     | <0.5     | -     | -         |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 10.5   | 11.1     | -     | 105       |
|              |               |            | d8-toluene (Surrogate)            | μg/L  | -   | 10.3   | 9.7      | -     | 103       |
|              |               |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 9.9    | 9.9      | -     | 99        |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

|              |               |            |                                   |       |     |        |          |       | , [       |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
| SE208655.001 | LB204339.004  |            | TRH C6-C10                        | mg/kg | 25  | 68     | <25      | 92.5  | 73        |
|              |               |            | TRH C6-C9                         | mg/kg | 20  | 62     | <20      | 80    | 77        |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.5    | 8.3      | 10    | 85        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.9    | 8.0      | 10    | 79        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.5    | 7.1      | -     | 65        |
|              |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1 | 3.4    | <0.1     | -     | -         |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 44     | <25      | 62.5  | 70        |
|              |               |            |                                   |       |     |        |          |       |           |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Volatile Petroleum Hydrocarbons in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE208655.017 | LB204340.004  |            | TRH C6-C10                        | mg/kg | 25  | 66     | <25      | 92.5  | 71        |
|              |               |            | TRH C6-C9                         | mg/kg | 20  | 57     | <20      | 80    | 72        |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.9    | 8.7      | 10    | 79        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.9    | 8.4      | 10    | 79        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 6.7    | 7.1      | -     | 67        |
|              |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1 | 4.4    | <0.1     | -     | -         |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 38     | <25      | 62.5  | 62        |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

|              | ,             |            |                                   |       |     |        |          | (      | , [       |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|--------|-----------|
| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike  | Recovery% |
| SE208484A.00 | LB204439.023  |            | TRH C6-C10                        | μg/L  | 50  | 930    | <50      | 946.63 | 98        |
| 9            |               |            | TRH C6-C9                         | μg/L  | 40  | 800    | <40      | 818.71 | 98        |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 0.0    | 11.1     | -      | 105       |
|              |               |            | d8-toluene (Surrogate)            | μg/L  | -   | 0.0    | 9.7      | -      | 103       |
|              |               |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 0.0    | 9.9      | -      | 99        |
|              |               | VPH F      | Benzene (F0)                      | μg/L  | 0.5 | 48     | <0.5     | -      | -         |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | μg/L  | 50  | 640    | <50      | 639.67 | 101       |
|              |               |            |                                   |       |     |        |          |        |           |

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#### **MATRIX SPIKE DUPLICATES**

SE208655 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than  $\,200$  it is displayed as  $\,200$ .

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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# FOOTNOTES



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- © LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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## STATEMENT OF QA/QC **PERFORMANCE**

CLIENT DETAILS . LABORATORY DETAILS \_

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E24724.E02 2 Mandala Parade, Castle Hill SGS Reference SE208846 R0 Project E24724.E02 17 Jul 2020 Order Number Date Received 24 Jul 2020

COMMENTS

Samples

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

Date Reported

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499 www.sgs.com.au

Method: ME-(AU)-[ENV]AN002

Method: ME-(AU)-[ENV]AN420



#### HOLDING TIME SUMMARY

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

| Fibre Identification in soil | Method: ME-(AU)-IENVIAN602 |
|------------------------------|----------------------------|
|                              |                            |

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB205004 | 09 Jul 2020 | 17 Jul 2020 | 09 Jul 2021    | 23 Jul 2020 | 09 Jul 2021  | 24 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB205004 | 09 Jul 2020 | 17 Jul 2020 | 09 Jul 2021    | 23 Jul 2020 | 09 Jul 2021  | 24 Jul 2020 |
| BH3M_0.1-0.2 | SE208846.004 | LB205004 | 13 Jul 2020 | 17 Jul 2020 | 13 Jul 2021    | 23 Jul 2020 | 13 Jul 2021  | 24 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB205004 | 13 Jul 2020 | 17 Jul 2020 | 13 Jul 2021    | 23 Jul 2020 | 13 Jul 2021  | 24 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB205004 | 13 Jul 2020 | 17 Jul 2020 | 13 Jul 2021    | 23 Jul 2020 | 13 Jul 2021  | 24 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB205004 | 13 Jul 2020 | 17 Jul 2020 | 13 Jul 2021    | 23 Jul 2020 | 13 Jul 2021  | 24 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB205004 | 14 Jul 2020 | 17 Jul 2020 | 14 Jul 2021    | 23 Jul 2020 | 14 Jul 2021  | 24 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB205004 | 14 Jul 2020 | 17 Jul 2020 | 14 Jul 2021    | 23 Jul 2020 | 14 Jul 2021  | 24 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB205004 | 16 Jul 2020 | 17 Jul 2020 | 16 Jul 2021    | 23 Jul 2020 | 16 Jul 2021  | 24 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB205004 | 16 Jul 2020 | 17 Jul 2020 | 16 Jul 2021    | 23 Jul 2020 | 16 Jul 2021  | 24 Jul 2020 |

#### Mercury in Soil Method: ME-(AU)-[ENV]AN312

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204774 | 09 Jul 2020 | 17 Jul 2020 | 06 Aug 2020    | 21 Jul 2020 | 06 Aug 2020  | 23 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204774 | 09 Jul 2020 | 17 Jul 2020 | 06 Aug 2020    | 21 Jul 2020 | 06 Aug 2020  | 23 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204774 | 09 Jul 2020 | 17 Jul 2020 | 06 Aug 2020    | 21 Jul 2020 | 06 Aug 2020  | 23 Jul 2020 |
| BH3M_0.1-0.2 | SE208846.004 | LB204774 | 13 Jul 2020 | 17 Jul 2020 | 10 Aug 2020    | 21 Jul 2020 | 10 Aug 2020  | 23 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204774 | 13 Jul 2020 | 17 Jul 2020 | 10 Aug 2020    | 21 Jul 2020 | 10 Aug 2020  | 23 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204774 | 13 Jul 2020 | 17 Jul 2020 | 10 Aug 2020    | 21 Jul 2020 | 10 Aug 2020  | 23 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204774 | 13 Jul 2020 | 17 Jul 2020 | 10 Aug 2020    | 21 Jul 2020 | 10 Aug 2020  | 23 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204774 | 14 Jul 2020 | 17 Jul 2020 | 11 Aug 2020    | 21 Jul 2020 | 11 Aug 2020  | 23 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204774 | 14 Jul 2020 | 17 Jul 2020 | 11 Aug 2020    | 21 Jul 2020 | 11 Aug 2020  | 23 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204774 | 14 Jul 2020 | 17 Jul 2020 | 11 Aug 2020    | 21 Jul 2020 | 11 Aug 2020  | 23 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204774 | 14 Jul 2020 | 17 Jul 2020 | 11 Aug 2020    | 21 Jul 2020 | 11 Aug 2020  | 23 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204774 | 16 Jul 2020 | 17 Jul 2020 | 13 Aug 2020    | 21 Jul 2020 | 13 Aug 2020  | 23 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204774 | 16 Jul 2020 | 17 Jul 2020 | 13 Aug 2020    | 21 Jul 2020 | 13 Aug 2020  | 23 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204774 | 16 Jul 2020 | 17 Jul 2020 | 13 Aug 2020    | 21 Jul 2020 | 13 Aug 2020  | 23 Jul 2020 |

### Moisture Content

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204739 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204739 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204739 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH3M_0.1-0.2 | SE208846.004 | LB204739 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204739 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204739 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204739 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204739 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204739 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204739 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204739 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204739 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204739 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204739 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 26 Jul 2020  | 22 Jul 2020 |

# OC Pesticides in Soil

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |

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#### **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

#### OP Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 24 Jul 2020 |
|              |              |          |             |             |                |             |              |             |

#### PCBs in Soil

## Method: ME-(AU)-[ENV]AN420

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204738 | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204738 | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204738 | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
| BH5M_1.9-2.0 | SE208846.014 | LB204738 | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020  | 23 Jul 2020 |
|              |              |          |             |             |                |             |              |             |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Sample Name  | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|--------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH2_0.1-0.2  | SE208846.001 | LB204772 | 09 Jul 2020 | 17 Jul 2020 | 05 Jan 2021    | 21 Jul 2020 | 05 Jan 2021  | 22 Jul 2020 |
| BH2_1.2-1.3  | SE208846.002 | LB204772 | 09 Jul 2020 | 17 Jul 2020 | 05 Jan 2021    | 21 Jul 2020 | 05 Jan 2021  | 22 Jul 2020 |
| BH2_1.6-1.7  | SE208846.003 | LB204772 | 09 Jul 2020 | 17 Jul 2020 | 05 Jan 2021    | 21 Jul 2020 | 05 Jan 2021  | 22 Jul 2020 |
| BH3M_0.1-0.2 | SE208846.004 | LB204772 | 13 Jul 2020 | 17 Jul 2020 | 09 Jan 2021    | 21 Jul 2020 | 09 Jan 2021  | 22 Jul 2020 |
| BH3M_0.7-0.8 | SE208846.005 | LB204772 | 13 Jul 2020 | 17 Jul 2020 | 09 Jan 2021    | 21 Jul 2020 | 09 Jan 2021  | 22 Jul 2020 |
| BH3M_1.7-1.8 | SE208846.006 | LB204772 | 13 Jul 2020 | 17 Jul 2020 | 09 Jan 2021    | 21 Jul 2020 | 09 Jan 2021  | 22 Jul 2020 |
| BH3M_2.8-2.9 | SE208846.007 | LB204772 | 13 Jul 2020 | 17 Jul 2020 | 09 Jan 2021    | 21 Jul 2020 | 09 Jan 2021  | 22 Jul 2020 |
| BH4M_0.3-0.5 | SE208846.008 | LB204772 | 14 Jul 2020 | 17 Jul 2020 | 10 Jan 2021    | 21 Jul 2020 | 10 Jan 2021  | 22 Jul 2020 |
| BH4M_1.4-1.5 | SE208846.009 | LB204772 | 14 Jul 2020 | 17 Jul 2020 | 10 Jan 2021    | 21 Jul 2020 | 10 Jan 2021  | 22 Jul 2020 |
| BH4M_2.9-3.0 | SE208846.010 | LB204772 | 14 Jul 2020 | 17 Jul 2020 | 10 Jan 2021    | 21 Jul 2020 | 10 Jan 2021  | 22 Jul 2020 |
| BH4M_4.9-5.0 | SE208846.011 | LB204772 | 14 Jul 2020 | 17 Jul 2020 | 10 Jan 2021    | 21 Jul 2020 | 10 Jan 2021  | 22 Jul 2020 |
| BH5M_0.1-0.2 | SE208846.012 | LB204772 | 16 Jul 2020 | 17 Jul 2020 | 12 Jan 2021    | 21 Jul 2020 | 12 Jan 2021  | 22 Jul 2020 |
| BH5M_1.5-1.6 | SE208846.013 | LB204772 | 16 Jul 2020 | 17 Jul 2020 | 12 Jan 2021    | 21 Jul 2020 | 12 Jan 2021  | 22 Jul 2020 |

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#### **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

| otal Recoverable Eleme  | nts in Soil/Waste Solids/Ma | terials by ICPOES ( | continued)  |             |                |             | Method: ME-(AU | )-[ENV]AN040/AI |
|-------------------------|-----------------------------|---------------------|-------------|-------------|----------------|-------------|----------------|-----------------|
| Sample Name             | Sample No.                  | QC Ref              | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due   | Analysed        |
| 3H5M_1.9-2.0            | SE208846.014                | LB204772            | 16 Jul 2020 | 17 Jul 2020 | 12 Jan 2021    | 21 Jul 2020 | 12 Jan 2021    | 22 Jul 2020     |
| RH (Total Recoverable I | Hydrocarbons) in Soil       |                     |             |             |                |             | Method: I      | ME-(AU)-[ENV]AI |
| Sample Name             | Sample No.                  | QC Ref              | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due   | Analysed        |
| H2_0.1-0.2              | SE208846.001                | LB204738            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H2_1.2-1.3              | SE208846.002                | LB204738            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H2_1.6-1.7              | SE208846.003                | LB204738            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H3M_0.7-0.8             | SE208846.005                | LB204738            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_1.7-1.8             | SE208846.006                | LB204738            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_2.8-2.9             | SE208846.007                | LB204738            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H4M 0.3-0.5             | SE208846.008                | LB204738            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H4M 1.4-1.5             | SE208846.009                | LB204738            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H4M 2.9-3.0             | SE208846.010                | LB204738            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H4M 4.9-5.0             | SE208846.011                | LB204738            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H5M 0.1-0.2             | SE208846.012                | LB204738            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 22 Jul 2020     |
| H5M_1.5-1.6             | SE208846.013                | LB204738            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H5M_1.9-2.0             | SE208846.014                | LB204738            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| C's in Soil             | 3L200040.014                | LD204730            | 10 Jul 2020 | 17 301 2020 | 30 3ul 2020    | 21 301 2020 |                | ME-(AU)-[ENV]A  |
| ample Name              | Sample No.                  | QC Ref              | Campled     | Received    | Extraction Due | Extracted   |                |                 |
| •                       | Sample No.                  |                     | Sampled     |             |                |             | Analysis Due   | Analysed        |
| 12_0.1-0.2              | SE208846.001                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| 12_1.2-1.3              | SE208846.002                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| 12_1.6-1.7              | SE208846.003                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_0.7-0.8             | SE208846.005                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_1.7-1.8             | SE208846.006                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_2.8-2.9             | SE208846.007                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_0.3-0.5             | SE208846.008                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_1.4-1.5             | SE208846.009                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_2.9-3.0             | SE208846.010                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_4.9-5.0             | SE208846.011                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H5M_0.1-0.2             | SE208846.012                | LB204737            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H5M_1.5-1.6             | SE208846.013                | LB204737            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H5M_1.9-2.0             | SE208846.014                | LB204737            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| latile Petroleum Hydrod | carbons in Soil             |                     |             |             |                |             | Method: I      | ME-(AU)-[ENV]A  |
| ample Name              | Sample No.                  | QC Ref              | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due   | Analysed        |
| H2_0.1-0.2              | SE208846.001                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H2_1.2-1.3              | SE208846.002                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H2_1.6-1.7              | SE208846.003                | LB204737            | 09 Jul 2020 | 17 Jul 2020 | 23 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_0.7-0.8             | SE208846.005                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_1.7-1.8             | SE208846.006                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H3M_2.8-2.9             | SE208846.007                | LB204737            | 13 Jul 2020 | 17 Jul 2020 | 27 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_0.3-0.5             | SE208846.008                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_1.4-1.5             | SE208846.009                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_2.9-3.0             | SE208846.010                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H4M_4.9-5.0             | SE208846.011                | LB204737            | 14 Jul 2020 | 17 Jul 2020 | 28 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
| H5M_0.1-0.2             | SE208846.012                | LB204737            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |
|                         | *                           |                     |             |             |                |             |                |                 |
| H5M_1.5-1.6             | SE208846.013                | LB204737            | 16 Jul 2020 | 17 Jul 2020 | 30 Jul 2020    | 21 Jul 2020 | 30 Aug 2020    | 23 Jul 2020     |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

| OC Pesticides in Soil | Method: ME-(AU)-[ENV]AN420 |
|-----------------------|----------------------------|
|                       |                            |

| Parameter                               | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------------|--------------|---------------|-------|-----------|------------|
| Tetrachloro-m-xylene (TCMX) (Surrogate) | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 89         |
|                                         | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 95         |
|                                         | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 89         |
|                                         | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 91         |
|                                         | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 93         |
|                                         | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 89         |
|                                         | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 92         |
|                                         | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 88         |
|                                         | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 95         |

#### OP Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|--------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 85         |
|                              | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 83         |
|                              | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 80         |
|                              | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 85         |
|                              | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 80         |
|                              | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 84         |
|                              | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 81         |
|                              | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 84         |
|                              | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 80         |
| d14-p-terphenyl (Surrogate)  | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 89         |
|                              | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 83         |
|                              | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 84         |
|                              | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 91         |
|                              | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 88         |
|                              | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 89         |
|                              | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 87         |
|                              | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 87         |
|                              | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 86         |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|--------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | BH2_0.1-0.2  | SE208846.001  | %     | 70 - 130% | 85         |
|                              | BH2_1.2-1.3  | SE208846.002  | %     | 70 - 130% | 86         |
|                              | BH2_1.6-1.7  | SE208846.003  | %     | 70 - 130% | 83         |
|                              | BH3M_0.7-0.8 | SE208846.005  | %     | 70 - 130% | 80         |
|                              | BH3M_1.7-1.8 | SE208846.006  | %     | 70 - 130% | 85         |
|                              | BH3M_2.8-2.9 | SE208846.007  | %     | 70 - 130% | 80         |
|                              | BH4M_0.3-0.5 | SE208846.008  | %     | 70 - 130% | 84         |
|                              | BH4M_1.4-1.5 | SE208846.009  | %     | 70 - 130% | 85         |
|                              | BH4M_2.9-3.0 | SE208846.010  | %     | 70 - 130% | 81         |
|                              | BH4M_4.9-5.0 | SE208846.011  | %     | 70 - 130% | 78         |
|                              | BH5M_0.1-0.2 | SE208846.012  | %     | 70 - 130% | 84         |
|                              | BH5M_1.5-1.6 | SE208846.013  | %     | 70 - 130% | 80         |
|                              | BH5M_1.9-2.0 | SE208846.014  | %     | 70 - 130% | 80         |
| d14-p-terphenyl (Surrogate)  | BH2_0.1-0.2  | SE208846.001  | %     | 70 - 130% | 89         |
|                              | BH2_1.2-1.3  | SE208846.002  | %     | 70 - 130% | 89         |
|                              | BH2_1.6-1.7  | SE208846.003  | %     | 70 - 130% | 83         |
|                              | BH3M_0.7-0.8 | SE208846.005  | %     | 70 - 130% | 84         |
|                              | BH3M_1.7-1.8 | SE208846.006  | %     | 70 - 130% | 91         |
|                              | BH3M_2.8-2.9 | SE208846.007  | %     | 70 - 130% | 88         |
|                              | BH4M_0.3-0.5 | SE208846.008  | %     | 70 - 130% | 89         |
|                              | BH4M_1.4-1.5 | SE208846.009  | %     | 70 - 130% | 82         |
|                              | BH4M_2.9-3.0 | SE208846.010  | %     | 70 - 130% | 87         |
|                              | BH4M_4.9-5.0 | SE208846.011  | %     | 70 - 130% | 86         |
|                              | BH5M_0.1-0.2 | SE208846.012  | %     | 70 - 130% | 87         |
|                              | BH5M_1.5-1.6 | SE208846.013  | %     | 70 - 130% | 85         |
|                              | BH5M_1.9-2.0 | SE208846.014  | %     | 70 - 130% | 86         |
| d5-nitrobenzene (Surrogate)  | BH2_0.1-0.2  | SE208846.001  | %     | 70 - 130% | 84         |
|                              | BH2_1.2-1.3  | SE208846.002  | %     | 70 - 130% | 86         |
|                              | BH2_1.6-1.7  | SE208846.003  | %     | 70 - 130% | 86         |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Parameter                   | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------|--------------|---------------|-------|-----------|------------|
| d5-nitrobenzene (Surrogate) | BH3M_0.7-0.8 | SE208846.005  | %     | 70 - 130% | 80         |
|                             | BH3M_1.7-1.8 | SE208846.006  | %     | 70 - 130% | 82         |
|                             | BH3M_2.8-2.9 | SE208846.007  | %     | 70 - 130% | 83         |
|                             | BH4M_0.3-0.5 | SE208846.008  | %     | 70 - 130% | 82         |
|                             | BH4M_1.4-1.5 | SE208846.009  | %     | 70 - 130% | 78         |
|                             | BH4M_2.9-3.0 | SE208846.010  | %     | 70 - 130% | 79         |
|                             | BH4M_4.9-5.0 | SE208846.011  | %     | 70 - 130% | 79         |
|                             | BH5M_0.1-0.2 | SE208846.012  | %     | 70 - 130% | 77         |
|                             | BH5M_1.5-1.6 | SE208846.013  | %     | 70 - 130% | 80         |
|                             | BH5M_1.9-2.0 | SE208846.014  | %     | 70 - 130% | 78         |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

|                                         |              |               |       |           | _ ( 10) [  |
|-----------------------------------------|--------------|---------------|-------|-----------|------------|
| Parameter                               | Sample Name  | Sample Number | Units | Criteria  | Recovery % |
| Tetrachloro-m-xylene (TCMX) (Surrogate) | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 89         |
|                                         | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 95         |
|                                         | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 89         |
|                                         | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 91         |
|                                         | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 93         |
|                                         | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 89         |
|                                         | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 92         |
|                                         | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 88         |
|                                         | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 95         |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| Parameter  Bromofluorobenzene (Surrogate) | Sample Name  | Sample Number | Units | Ouit-ui-  |            |
|-------------------------------------------|--------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)            |              | Sample Number | Units | Criteria  | Recovery % |
| Diomondorobenzene (Gunogate)              | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 78         |
|                                           | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130% | 71         |
|                                           | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 85         |
|                                           | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 75         |
|                                           | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 87         |
|                                           | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 79         |
|                                           | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 78         |
|                                           | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130% | 77         |
|                                           | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 77         |
|                                           | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130% | 75         |
|                                           | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 76         |
|                                           | BH5M_1.5-1.6 | SE208846.013  | %     | 60 - 130% | 82         |
|                                           | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 74         |
| d4-1,2-dichloroethane (Surrogate)         | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 78         |
|                                           | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130% | 71         |
|                                           | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 79         |
|                                           | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 79         |
|                                           | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 82         |
|                                           | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 78         |
|                                           | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 87         |
|                                           | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130% | 84         |
|                                           | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 76         |
|                                           | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130% | 81         |
|                                           | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130% | 77         |
|                                           | BH5M_1.5-1.6 | SE208846.013  | %     | 60 - 130% | 79         |
|                                           | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130% | 77         |
| d8-toluene (Surrogate)                    | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130% | 72         |
|                                           | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130% | 61         |
|                                           | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130% | 75         |
|                                           | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130% | 71         |
|                                           | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130% | 74         |
|                                           | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130% | 71         |
|                                           | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130% | 76         |
|                                           | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130% | 77         |
|                                           | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130% | 74         |
|                                           |              |               |       |           |            |
|                                           | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130% | 75         |

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Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

| OC's in Soil (continued)               |              |               |       | Method: Mi | E-(AU)-[ENV]AN |
|----------------------------------------|--------------|---------------|-------|------------|----------------|
| Parameter                              | Sample Name  | Sample Number | Units | Criteria   | Recovery %     |
| d8-toluene (Surrogate)                 | BH5M_1.5-1.6 | SE208846.013  | %     | 60 - 130%  | 76             |
|                                        | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130%  | 75             |
| olatile Petroleum Hydrocarbons in Soil |              |               |       | Method: ME | E-(AU)-[ENV]AN |
| Parameter                              | Sample Name  | Sample Number | Units | Criteria   | Recovery %     |
| Bromofluorobenzene (Surrogate)         | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130%  | 78             |
|                                        | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130%  | 71             |
|                                        | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130%  | 85             |
|                                        | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130%  | 75             |
|                                        | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130%  | 87             |
|                                        | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130%  | 79             |
|                                        | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130%  | 78             |
|                                        | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130%  | 77             |
|                                        | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130%  | 77             |
|                                        | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130%  | 75             |
|                                        | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130%  | 76             |
|                                        | BH5M_1.5-1.6 | SE208846.013  | %     | 60 - 130%  | 82             |
|                                        | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130%  | 74             |
| l4-1,2-dichloroethane (Surrogate)      | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130%  | 78             |
|                                        | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130%  | 71             |
|                                        | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130%  | 79             |
|                                        | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130%  | 79             |
|                                        | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130%  | 82             |
|                                        | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130%  | 78             |
|                                        | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130%  | 87             |
|                                        | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130%  | 84             |
|                                        | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130%  | 76             |
|                                        | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130%  | 81             |
|                                        | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130%  | 77             |
|                                        | BH5M_1.5-1.6 | SE208846.013  | %     | 60 - 130%  | 79             |
|                                        | BH5M_1.9-2.0 | SE208846.014  | %     | 60 - 130%  | 77             |
| d8-toluene (Surrogate)                 | BH2_0.1-0.2  | SE208846.001  | %     | 60 - 130%  | 72             |
|                                        | BH2_1.2-1.3  | SE208846.002  | %     | 60 - 130%  | 61             |
|                                        | BH2_1.6-1.7  | SE208846.003  | %     | 60 - 130%  | 75             |
|                                        | BH3M_0.7-0.8 | SE208846.005  | %     | 60 - 130%  | 71             |
|                                        | BH3M_1.7-1.8 | SE208846.006  | %     | 60 - 130%  | 74             |
|                                        | BH3M_2.8-2.9 | SE208846.007  | %     | 60 - 130%  | 71             |
|                                        | BH4M_0.3-0.5 | SE208846.008  | %     | 60 - 130%  | 76             |
|                                        | BH4M_1.4-1.5 | SE208846.009  | %     | 60 - 130%  | 77             |
|                                        | BH4M_2.9-3.0 | SE208846.010  | %     | 60 - 130%  | 74             |
|                                        | BH4M_4.9-5.0 | SE208846.011  | %     | 60 - 130%  | 75             |
|                                        | BH5M_0.1-0.2 | SE208846.012  | %     | 60 - 130%  | 74             |
|                                        |              |               |       |            |                |

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BH5M\_1.9-2.0

SE208846.014

60 - 130%





# **METHOD BLANKS**

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB204774.001  | Mercury   | mg/kg | 0.05 | < 0.05 |

#### OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result |
|---------------|-----------------------------------------|-------|-----|--------|
| LB204738.001  | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1   |
|               | Alpha BHC                               | mg/kg | 0.1 | <0.1   |
|               | Lindane                                 | mg/kg | 0.1 | <0.1   |
|               | Heptachlor                              | mg/kg | 0.1 | <0.1   |
|               | Aldrin                                  | mg/kg | 0.1 | <0.1   |
|               | Beta BHC                                | mg/kg | 0.1 | <0.1   |
|               | Delta BHC                               | mg/kg | 0.1 | <0.1   |
|               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1   |
|               | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2   |
|               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | p,p'-DDE                                | mg/kg | 0.1 | <0.1   |
|               | Dieldrin                                | mg/kg | 0.2 | <0.2   |
|               | Endrin                                  | mg/kg | 0.2 | <0.2   |
|               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2   |
|               | p,p'-DDD                                | mg/kg | 0.1 | <0.1   |
|               | p,p'-DDT                                | mg/kg | 0.1 | <0.1   |
|               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1   |
|               | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1   |
|               | Methoxychlor                            | mg/kg | 0.1 | <0.1   |
|               | Endrin Ketone                           | mg/kg | 0.1 | <0.1   |
|               | Isodrin                                 | mg/kg | 0.1 | <0.1   |
|               | Mirex                                   | mg/kg | 0.1 | <0.1   |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 97     |

#### OP Pesticides in Soil

#### Method: ME-(AU)-[ENV]AN420

| 01 1 001101000 111 0011 |                                   |       | Mour | iod. III. (10) [Litt] atti |
|-------------------------|-----------------------------------|-------|------|----------------------------|
| Sample Number           | Parameter                         | Units | LOR  | Result                     |
| LB204738.001            | Dichlorvos                        | mg/kg | 0.5  | <0.5                       |
|                         | Dimethoate                        | mg/kg | 0.5  | <0.5                       |
|                         | Diazinon (Dimpylate)              | mg/kg | 0.5  | <0.5                       |
|                         | Fenitrothion                      | mg/kg | 0.2  | <0.2                       |
|                         | Malathion                         | mg/kg | 0.2  | <0.2                       |
|                         | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2  | <0.2                       |
|                         | Parathion-ethyl (Parathion)       | mg/kg | 0.2  | <0.2                       |
|                         | Bromophos Ethyl                   | mg/kg | 0.2  | <0.2                       |
|                         | Methidathion                      | mg/kg | 0.5  | <0.5                       |
|                         | Ethion                            | mg/kg | 0.2  | <0.2                       |
|                         | Azinphos-methyl (Guthion)         | mg/kg | 0.2  | <0.2                       |
| Surrogate               | 2-fluorobiphenyl (Surrogate)      | %     | -    | 99                         |
|                         | d14-p-terphenyl (Surrogate)       | %     | -    | 99                         |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter           | Units | LOR | Result |
|---------------|---------------------|-------|-----|--------|
| LB204738.001  | Naphthalene         | mg/kg | 0.1 | <0.1   |
|               | 2-methylnaphthalene | mg/kg | 0.1 | <0.1   |
|               | 1-methylnaphthalene | mg/kg | 0.1 | <0.1   |
|               | Acenaphthylene      | mg/kg | 0.1 | <0.1   |
|               | Acenaphthene        | mg/kg | 0.1 | <0.1   |
|               | Fluorene            | mg/kg | 0.1 | <0.1   |
|               | Phenanthrene        | mg/kg | 0.1 | <0.1   |
|               | Anthracene          | mg/kg | 0.1 | <0.1   |
|               | Fluoranthene        | mg/kg | 0.1 | <0.1   |
|               | Pyrene              | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)anthracene  | mg/kg | 0.1 | <0.1   |
|               | Chrysene            | mg/kg | 0.1 | <0.1   |
|               | Benzo(a)pyrene      | mg/kg | 0.1 | <0.1   |

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# **METHOD BLANKS**

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Sample Number |            | Parameter                    | Units | LOR | Result |
|---------------|------------|------------------------------|-------|-----|--------|
| LB204738.001  |            | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               |            | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               |            | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               |            | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
| Surrogates    | Surrogates | d5-nitrobenzene (Surrogate)  | %     | -   | 84     |
|               |            | 2-fluorobiphenyl (Surrogate) | %     | -   | 87     |
|               |            | d14-p-terphenyl (Surrogate)  | %     | -   | 90     |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result |
|---------------|-----------------------------------------|-------|-----|--------|
| LB204738.001  | Arochlor 1016                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1221                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1232                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1242                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1248                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1254                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1260                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1262                           | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1268                           | mg/kg | 0.2 | <0.2   |
|               | Total PCBs (Arochlors)                  | mg/kg | 1   | <1     |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 97     |

# Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

# Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB204772.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |
|               |              |       |     |        |

#### TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result |
|---------------|-------------------|-------|-----|--------|
| LB204738.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |

#### VOC's in Soil

# Method: ME-(AU)-[ENV]AN433

| Sample Number |                     | Parameter                         | Units | LOR | Result |
|---------------|---------------------|-----------------------------------|-------|-----|--------|
| LB204737.001  | Monocyclic Aromatic | Benzene                           | mg/kg | 0.1 | <0.1   |
|               | Hydrocarbons        | Toluene                           | mg/kg | 0.1 | <0.1   |
|               |                     | Ethylbenzene                      | mg/kg | 0.1 | <0.1   |
|               |                     | m/p-xylene                        | mg/kg | 0.2 | <0.2   |
|               |                     | o-xylene                          | mg/kg | 0.1 | <0.1   |
|               | Polycyclic VOCs     | Naphthalene                       | mg/kg | 0.1 | <0.1   |
|               | Surrogates          | d4-1,2-dichloroethane (Surrogate) | %     | -   | 76     |
|               |                     | d8-toluene (Surrogate)            | %     | -   | 84     |
|               |                     | Bromofluorobenzene (Surrogate)    | %     | -   | 88     |
|               | Totals              | Total BTEX                        | mg/kg | 0.6 | <0.6   |

### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result |
|---------------|------------|-----------------------------------|-------|-----|--------|
| LB204737.001  |            | TRH C6-C9                         | mg/kg | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %     | -   | 76     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury in Soil Method: ME-(AU)-[ENV]AN312

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|-----------|------------|-------|
| SE208846.007 | LB204774.014 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |
| SE208846.014 | LB204774.022 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05     | 200        | 0     |

# Moisture Content Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|-----------|------------|-------|
| SE208846.014 | LB204739.020 | % Moisture | %w/w  | 1   | 9.1      | 8.1       | 42         | 12    |

#### OC Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| OC Pesticides in a | Joli         |                                             |       |     |          | Wedi      | ou. ME-(AU)-[ | F144 17114420 |
|--------------------|--------------|---------------------------------------------|-------|-----|----------|-----------|---------------|---------------|
| Original           | Duplicate    | Parameter                                   | Units | LOR | Original | Duplicate | Criteria %    | RPD %         |
| SE208846.014       | LB204738.022 | Hexachlorobenzene (HCB)                     | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Alpha BHC                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Lindane                                     | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Heptachlor                                  | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Aldrin                                      | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Beta BHC                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Delta BHC                                   | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Heptachlor epoxide                          | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | o,p'-DDE                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Alpha Endosulfan                            | mg/kg | 0.2 | <0.2     | <0.2      | 200           | 0             |
|                    |              | Gamma Chlordane                             | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Alpha Chlordane                             | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | trans-Nonachlor                             | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | p,p'-DDE                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Dieldrin                                    | mg/kg | 0.2 | <0.2     | <0.2      | 200           | 0             |
|                    |              | Endrin                                      | mg/kg | 0.2 | <0.2     | <0.2      | 200           | 0             |
|                    |              | o,p'-DDD                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | o,p'-DDT                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Beta Endosulfan                             | mg/kg | 0.2 | <0.2     | <0.2      | 200           | 0             |
|                    |              | p,p'-DDD                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | p,p'-DDT                                    | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Endosulfan sulphate                         | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Endrin Aldehyde                             | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Methoxychlor                                | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Endrin Ketone                               | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Isodrin                                     | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Mirex                                       | mg/kg | 0.1 | <0.1     | <0.1      | 200           | 0             |
|                    |              | Total CLP OC Pesticides                     | mg/kg | 1   | <1       | <1        | 200           | 0             |
|                    | Surroga      | tes Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.14     | 0.13      | 30            | 6             |

#### OP Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |          | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|----------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204738.014 |          | Dichlorvos                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              |          | Dimethoate                        | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              |          | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              |          | Fenitrothion                      | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Malathion                         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Methidathion                      | mg/kg | 0.5 | <0.5     | <0.5      | 200        | 0     |
|              |              |          | Ethion                            | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |          | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | <1.7      | 200        | 0     |
|              | Sur          | rrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4      | 0.4       | 30         | 3     |
|              |              |          | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4      | 0.4       | 30         | 3     |

# PCBs in Soil

|  | Original | Duplicate | Parameter | Units LOR |
|--|----------|-----------|-----------|-----------|
|--|----------|-----------|-----------|-----------|

Method: ME-(AU)-[ENV]AN420

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PCBs in Soil (continued) Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |           | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.014 | LB204738.022 |           | Arochlor 1016                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1221                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1232                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1242                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1248                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1254                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1260                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1262                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |           | Arochlor 1268                           | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              | _            |           | Total PCBs (Arochlors)                  | mg/kg | 1   | <1       | <1        | 200        | 0     |
|              | Su           | urrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0        | 0         | 30         | 6     |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204772.014 | Arsenic, As  | mg/kg | 1   | 2        | 3         | 66         | 46    |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 13       | 16        | 34         | 23    |
|              |              | Copper, Cu   | mg/kg | 0.5 | 14       | 12        | 34         | 12    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 3.5      | 4.1       | 43         | 16    |
|              |              | Lead, Pb     | mg/kg | 1   | 5        | 6         | 47         | 25    |
|              |              | Zinc, Zn     | mg/kg | 2   | 17       | 22        | 40         | 24    |
| SE208846.014 | LB204772.022 | Arsenic, As  | mg/kg | 1   | 4        | 4         | 53         | 3     |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 15       | 11        | 34         | 28    |
|              |              | Copper, Cu   | mg/kg | 0.5 | 3.8      | 3.6       | 43         | 5     |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 2.3      | 2.3       | 52         | 1     |
|              |              | Lead, Pb     | mg/kg | 1   | 8        | 8         | 42         | 4     |
|              |              | Zinc, Zn     | mg/kg | 2   | 6.8      | 6.4       | 60         | 6     |

# TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    |             | Parameter                       | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|---------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204738.014 |             | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | <110      | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | <90       | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |
| SE208846.014 | LB204738.022 |             | TRH C10-C14                     | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | <45      | <45       | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | <100     | <100      | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | <110      | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | <210      | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | <90       | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | <120      | 200        | 0     |

### VOC's in Soil

### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204737.014 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | <0.1      | 194        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.8      | 7.5       | 50         | 3     |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.1      | 7.4       | 50         | 4     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204737.014 | Surrogates | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.9      | 7.0       | 50         | 12    |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | <0.6      | 200        | 0     |
| SE208846.014 | LB204737.022 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | <0.2      | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.7      | 8.1       | 50         | 6     |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.5      | 7.6       | 50         | 1     |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.4      | 8.5       | 50         | 14    |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | <0.3      | 200        | 0     |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | <0.6      | 200        | 0     |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|-----------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846.007 | LB204737.014 |             | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.8      | 7.5       | 30         | 3     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 7.1      | 7.4       | 30         | 4     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.9      | 7.0       | 30         | 12    |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |
| SE208846.014 | LB204737.022 |             | TRH C6-C10                        | mg/kg | 25  | <25      | <25       | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | <20      | <20       | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.7      | 8.1       | 30         | 6     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 7.5      | 7.6       | 30         | 1     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.4      | 8.5       | 30         | 14    |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | <25       | 200        | 0     |

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Method: ME-(AU)-[ENV]AN420



# LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| Mercury in Soil |   |  |      |      | Method: ME-(AU)-[ENV] | AN312 |
|-----------------|---|--|------|------|-----------------------|-------|
|                 | _ |  | <br> | <br> |                       |       |

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB204774.002  | Mercury   | mg/kg | 0.05 | 0.20   | 0.2      | 70 - 130   | 98         |

# Method: ME-(AU)-[ENV]AN420

| Sample Number |       | Parameter                               | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------|-----------------------------------------|-------|-----|--------|----------|------------|------------|
| LB204738.002  |       | Heptachlor                              | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 83         |
|               |       | Aldrin                                  | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 88         |
|               |       | Delta BHC                               | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 82         |
|               |       | Dieldrin                                | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 88         |
|               |       | Endrin                                  | mg/kg | 0.2 | <0.2   | 0.2      | 60 - 140   | 83         |
|               |       | p,p'-DDT                                | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 76         |
| Surro         | gates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.13   | 0.15     | 40 - 130   | 89         |

#### **OP Pesticides in Soil**

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204738.002  |            | Dichlorvos                        | mg/kg | 0.5 | 1.7    | 2        | 60 - 140   | 86         |
|               |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.8    | 2        | 60 - 140   | 91         |
|               |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.9    | 2        | 60 - 140   | 95         |
|               |            | Ethion                            | mg/kg | 0.2 | 1.3    | 2        | 60 - 140   | 63         |
|               | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 88         |
|               |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 84         |

| PAH (Polynuclear Aroma | atic Hydrocai | bons) in Soil                |       |     |        | N        | lethod: ME-(A | U)-[ENV]AN42( |
|------------------------|---------------|------------------------------|-------|-----|--------|----------|---------------|---------------|
| Sample Number          |               | Parameter                    | Units | LOR | Result | Expected | Criteria %    | Recovery %    |
| LB204738.002           |               | Naphthalene                  | mg/kg | 0.1 | 4.2    | 4        | 60 - 140      | 105           |
|                        |               | Acenaphthylene               | mg/kg | 0.1 | 4.2    | 4        | 60 - 140      | 106           |
|                        |               | Acenaphthene                 | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 110           |
|                        |               | Phenanthrene                 | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 109           |
|                        |               | Anthracene                   | mg/kg | 0.1 | 4.2    | 4        | 60 - 140      | 106           |
|                        |               | Fluoranthene                 | mg/kg | 0.1 | 4.3    | 4        | 60 - 140      | 106           |
|                        |               | Pyrene                       | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 110           |
|                        |               | Benzo(a)pyrene               | mg/kg | 0.1 | 4.6    | 4        | 60 - 140      | 116           |
| Sur                    | rrogates      | d5-nitrobenzene (Surrogate)  | mg/kg |     | 0.4    | 0.5      | 40 - 130      | 84            |
|                        |               | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.4    | 0.5      | 40 - 130      | 88            |
|                        |               | d14-p-terphenyl (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130      | 86            |

#### PCBs in Soil

|               |               |       |     |        |          | •          |            |
|---------------|---------------|-------|-----|--------|----------|------------|------------|
| Sample Number | Parameter     | Units | LOR | Result | Expected | Criteria % | Recovery % |
| LB204738.002  | Arochlor 1260 | mg/kg | 0.2 | 0.5    | 0.4      | 60 - 140   | 118        |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

TRH >C16-C34 (F3)

TRH >C34-C40 (F4)

# Method: ME-(AU)-[ENV]AN040/AN320

Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|--------------|-------|-----|--------|----------|------------|------------|
| LB204772.002  | Arsenic, As  | mg/kg | 1   | 330    | 318.22   | 80 - 120   | 103        |
|               | Cadmium, Cd  | mg/kg | 0.3 | 5.6    | 5.41     | 80 - 120   | 103        |
|               | Chromium, Cr | mg/kg | 0.5 | 39     | 38.31    | 80 - 120   | 103        |
|               | Copper, Cu   | mg/kg | 0.5 | 300    | 290      | 80 - 120   | 105        |
|               | Nickel, Ni   | mg/kg | 0.5 | 190    | 187      | 80 - 120   | 102        |
|               | Lead, Pb     | mg/kg | 1   | 93     | 89.9     | 80 - 120   | 104        |
|               | Zinc. Zn     | ma/ka | 2   | 280    | 273      | 80 - 120   | 102        |

#### TRH (Total Recoverable Hydrocarbons) in Soil Sa

|               |             | ·- <b>/</b> ··· ·· |  |       |     |        |          |            | -7 5       |
|---------------|-------------|--------------------|--|-------|-----|--------|----------|------------|------------|
| Sample Number |             | Parameter          |  | Units | LOR | Result | Expected | Criteria % | Recovery % |
| LB204738.002  |             | TRH C10-C14        |  | mg/kg | 20  | 37     | 40       | 60 - 140   | 93         |
|               |             | TRH C15-C28        |  | mg/kg | 45  | <45    | 40       | 60 - 140   | 83         |
|               |             | TRH C29-C36        |  | mg/kg | 45  | <45    | 40       | 60 - 140   | 93         |
|               | TRH F Bands | TRH >C10-C16       |  | mg/kg | 25  | 36     | 40       | 60 - 140   | 90         |

mg/kg

mg/kg

90

<90

<120

#### VOC's in Soil

| Sample Number | Parameter | Units | s LOR |
|---------------|-----------|-------|-------|

Method: ME-(AU)-[ENV]AN433

83

100

60 - 140

60 - 140

40

20

Method: ME-(AU)-IENVIAN403

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# LABORATORY CONTROL SAMPLES

SE208846 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### VOC's in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| Sample Number | r          | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204737.002  | Monocyclic | Benzene                           | mg/kg | 0.1 | 3.3    | 5        | 60 - 140   | 66         |
|               | Aromatic   | Toluene                           | mg/kg | 0.1 | 3.8    | 5        | 60 - 140   | 77         |
|               |            | Ethylbenzene                      | mg/kg | 0.1 | 3.7    | 5        | 60 - 140   | 75         |
|               |            | m/p-xylene                        | mg/kg | 0.2 | 7.5    | 10       | 60 - 140   | 75         |
|               |            | o-xylene                          | mg/kg | 0.1 | 3.7    | 5        | 60 - 140   | 74         |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.6    | 10       | 70 - 130   | 76         |
|               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.7    | 10       | 70 - 130   | 87         |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.6    | 10       | 70 - 130   | 86         |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |             | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB204737.002  |             | TRH C6-C10                        | mg/kg | 25  | 74     | 92.5     | 60 - 140   | 80         |
|               |             | TRH C6-C9                         | mg/kg | 20  | 67     | 80       | 60 - 140   | 84         |
|               | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.6    | 10       | 70 - 130   | 76         |
|               |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.6    | 10       | 70 - 130   | 86         |
|               | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 52     | 62.5     | 60 - 140   | 83         |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

# Mercury in Soil Method: ME-(AU)-[ENV]AN312

| QC Sample    | Sample Number | Parameter | Units | LOR  | Result | Original      | Spike | Recovery% |
|--------------|---------------|-----------|-------|------|--------|---------------|-------|-----------|
| SE208918.001 | LB204774.004  | Mercury   | mg/kg | 0.05 | 0.18   | 0.00314649167 | 0.2   | 89        |

#### OP Pesticides in Soil Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |           | Parameter                         | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|-----------|-----------------------------------|-------|-----|----------|-------|-----------|
| SE208846.001 | LB204738.024  |           | Dichlorvos                        | mg/kg | 0.5 | <0.5     | 2     | 82        |
|              |               |           | Dimethoate                        | mg/kg | 0.5 | <0.5     | -     | -         |
|              |               |           | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | 2     | 90        |
|              |               |           | Fenitrothion                      | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |           | Malathion                         | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |           | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | 2     | 94        |
|              |               |           | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |           | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |           | Methidathion                      | mg/kg | 0.5 | <0.5     | -     | -         |
|              |               |           | Ethion                            | mg/kg | 0.2 | <0.2     | 2     | 86        |
|              |               |           | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |           | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | -     | -         |
|              | S             | urrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4      | -     | 88        |
|              |               |           | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4      | -     | 89        |

## PAH (Polynuclear Aromatic Hydrocarbons) in Soil

## Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                                                                                                                      | Units       | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----|----------|-------|-----------|
| SE208846.001 | LB204738.024  |            | Naphthalene                                                                                                                    | mg/kg       | 0.1 | <0.1     | 4     | 97        |
|              |               |            | 2-methylnaphthalene                                                                                                            | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | 1-methylnaphthalene                                                                                                            | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Acenaphthylene                                                                                                                 | mg/kg       | 0.1 | <0.1     | 4     | 100       |
|              |               |            | Acenaphthene                                                                                                                   | mg/kg       | 0.1 | <0.1     | 4     | 106       |
|              |               |            | Fluorene                                                                                                                       | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Phenanthrene                                                                                                                   | mg/kg       | 0.1 | <0.1     | 4     | 101       |
|              |               |            | Anthracene                                                                                                                     | mg/kg       | 0.1 | <0.1     | 4     | 101       |
|              |               |            | Fluoranthene                                                                                                                   | mg/kg       | 0.1 | 0.1      | 4     | 106       |
|              |               |            | Pyrene                                                                                                                         | mg/kg       | 0.1 | 0.1      | 4     | 97        |
|              |               |            | Benzo(a)anthracene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Chrysene                                                                                                                       | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(b&j)fluoranthene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(k)fluoranthene                                                                                                           | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(a)pyrene                                                                                                                 | mg/kg       | 0.1 | <0.1     | 4     | 108       |
|              |               |            | Indeno(1,2,3-cd)pyrene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Dibenzo(ah)anthracene                                                                                                          | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(ghi)perylene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>-</td><td>-</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               |            | Total PAH (18)                                                                                                                 | mg/kg       | 0.8 | <0.8     | -     | -         |
|              |               | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                    | mg/kg       | -   | 0.4      | -     | 87        |
|              |               |            | 2-fluorobiphenyl (Surrogate)                                                                                                   | mg/kg       | -   | 0.4      | -     | 88        |
|              |               |            | d14-p-terphenyl (Surrogate)                                                                                                    | mg/kg       | -   | 0.4      | -     | 89        |
| SE208895.001 | LB204738.023  |            | Naphthalene                                                                                                                    | mg/kg       | 0.1 | <0.1     | 4     | 98        |
|              |               |            | 2-methylnaphthalene                                                                                                            | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | 1-methylnaphthalene                                                                                                            | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Acenaphthylene                                                                                                                 | mg/kg       | 0.1 | <0.1     | 4     | 111       |
|              |               |            | Acenaphthene                                                                                                                   | mg/kg       | 0.1 | <0.1     | 4     | 104       |
|              |               |            | Fluorene                                                                                                                       | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Phenanthrene                                                                                                                   | mg/kg       | 0.1 | <0.1     | 4     | 96        |
|              |               |            | Anthracene                                                                                                                     | mg/kg       | 0.1 | <0.1     | 4     | 97        |
|              |               |            | Fluoranthene                                                                                                                   | mg/kg       | 0.1 | <0.1     | 4     | 108       |
|              |               |            | Pyrene                                                                                                                         | mg/kg       | 0.1 | <0.1     | 4     | 107       |
|              |               |            | Benzo(a)anthracene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Chrysene                                                                                                                       | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(b&j)fluoranthene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter                                                                                                                      | Units       | LOR | Original | Spike | Recovery% |
|--------------|---------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----|----------|-------|-----------|
| SE208895.001 | LB204738.023  | Benzo(k)fluoranthene                                                                                                           | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               | Benzo(a)pyrene                                                                                                                 | mg/kg       | 0.1 | <0.1     | 4     | 106       |
|              |               | Indeno(1,2,3-cd)pyrene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               | Dibenzo(ah)anthracene                                                                                                          | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               | Benzo(ghi)perylene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>-</td><td>-</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3     | -     | -         |
|              |               | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               | Total PAH (18)                                                                                                                 | mg/kg       | 0.8 | <0.8     | -     | -         |
|              | Surrog        | ates d5-nitrobenzene (Surrogate)                                                                                               | mg/kg       | -   | 0.38     | -     | 80        |
|              |               | 2-fluorobiphenyl (Surrogate)                                                                                                   | mg/kg       | -   | 0.60     | -     | 78        |
|              |               | d14-p-terphenyl (Surrogate)                                                                                                    | mg/kg       | -   | 0.52     | -     | 78        |

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original       | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------------|-------|-----------|
| SE208918.001 | LB204772.004  | Arsenic, As  | mg/kg | 1   | 47     | 0.89521870892  | 50    | 92        |
|              |               | Cadmium, Cd  | mg/kg | 0.3 | 42     | -0.00744851759 | 50    | 84        |
|              |               | Chromium, Cr | mg/kg | 0.5 | 50     | 2.24852125018  | 50    | 96        |
|              |               | Copper, Cu   | mg/kg | 0.5 | 47     | -0.11452095808 | 50    | 94        |
|              |               | Nickel, Ni   | mg/kg | 0.5 | 47     | 0.07960603183  | 50    | 95        |
|              |               | Lead, Pb     | mg/kg | 1   | 54     | 4.05059697677  | 50    | 100       |
|              |               | Zinc, Zn     | mg/kg | 2   | 48     | 0.24859427486  | 50    | 95        |

# TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number |             | Parameter                       | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|-------------|---------------------------------|-------|-----|----------|-------|-----------|
| SE208895.001 | LB204738.023  |             | TRH C10-C14                     | mg/kg | 20  | <20      | 40    | 100       |
|              |               |             | TRH C15-C28                     | mg/kg | 45  | <45      | 40    | 85        |
|              |               |             | TRH C29-C36                     | mg/kg | 45  | <45      | 40    | 68        |
|              |               |             | TRH C37-C40                     | mg/kg | 100 | <100     | -     | -         |
|              |               |             | TRH C10-C36 Total               | mg/kg | 110 | <110     | -     | -         |
|              |               |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210     | -     | -         |
|              |               | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | <25      | 40    | 98        |
|              |               |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | <25      | -     | -         |
|              |               |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90      | 40    | 60        |
|              |               |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120     | -     | -         |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Numbe | er         | Parameter                         | Units | LOR | Original | Spike | Recovery% |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------|-------|-----------|
| SE208846.001 | LB204737.023 | Monocyclic | Benzene                           | mg/kg | 0.1 | <0.1     | 5     | 70        |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | <0.1     | 5     | 68        |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | <0.1     | 5     | 71        |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | <0.2     | 10    | 72        |
|              |              |            | o-xylene                          | mg/kg | 0.1 | <0.1     | 5     | 71        |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1     | -     | -         |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.8      | 10    | 83        |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.2      | 10    | 73        |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.8      | 10    | 81        |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | <0.3     | -     | -         |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | <0.6     | -     | -         |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|----------|-------|-----------|
| SE208846.001 | LB204737.023  |            | TRH C6-C10                        | mg/kg | 25  | <25      | 92.5  | 69        |
|              |               |            | TRH C6-C9                         | mg/kg | 20  | <20      | 80    | 71        |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 7.8      | 10    | 83        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 7.2      | 10    | 73        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 7.8      | -     | 81        |
|              |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | <25      | 62.5  | 68        |

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# **MATRIX SPIKE DUPLICATES**

SE208846 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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# FOOTNOTES



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS \_\_\_\_\_ LABORATORY DETAILS .\_\_\_\_

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 Project
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 SGS Reference
 SE209082 R0

 Order Number
 E24724.E02
 Date Received
 23 Jul 2020

 Order Number
 **E24724.E02** Date Received
 23 Jul 2020

 Samples
 4
 Date Reported
 30 Jul 2020

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Duplicate Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES 2 items

Matrix Spike Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES 2 items

SAMPLE SUMMARY

SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

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# **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

|                                                                                                                                                                                                                           | 0 1 11                                                                              | 0001                                                                         |                                                                                                              |                                                                                              | - · · · · · · · · · · · · · · · · · · ·                                                                 |                                                                                                                      |                                                                                                                                                                    | ME-(AU)-[ENV]AN                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| 3H6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205491                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 20 Jul 2021                                                                                             | 29 Jul 2020                                                                                                          | 20 Jul 2021                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| 3H6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205491                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 20 Jul 2021                                                                                             | 29 Jul 2020                                                                                                          | 20 Jul 2021                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| ercury in Soil                                                                                                                                                                                                            |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| 3H6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205314                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 17 Aug 2020                                                                                             | 27 Jul 2020                                                                                                          | 17 Aug 2020                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| BH6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205314                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 17 Aug 2020                                                                                             | 27 Jul 2020                                                                                                          | 17 Aug 2020                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| loisture Content                                                                                                                                                                                                          |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| BH6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205135                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 29 Jul 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| BH6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205135                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 29 Jul 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| C Pesticides in Soil                                                                                                                                                                                                      |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| BH6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| BH6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| P Pesticides in Soil                                                                                                                                                                                                      |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| BH6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| 3H6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| AH (Polynuclear Aromati                                                                                                                                                                                                   | c Hydrocarbons) in Soil                                                             |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| BH6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| BH6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 30 Jul 2020                                                                                                                                            |
| CBs in Soil                                                                                                                                                                                                               |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: I                                                                                                                                                          | ME-(AU)-[ENV]AN                                                                                                                                        |
| Sample Name                                                                                                                                                                                                               | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| BH6_0.1-0.2                                                                                                                                                                                                               | SE209082.001                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
| BH6_1.4-1.5                                                                                                                                                                                                               | SE209082.004                                                                        | LB205134                                                                     | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 03 Aug 2020                                                                                             | 24 Jul 2020                                                                                                          | 02 Sep 2020                                                                                                                                                        | 29 Jul 2020                                                                                                                                            |
|                                                                                                                                                                                                                           |                                                                                     |                                                                              |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      |                                                                                                                                                                    |                                                                                                                                                        |
|                                                                                                                                                                                                                           | ts in Soil/Waste Solids/Ma                                                          | terials by ICPOES                                                            |                                                                                                              |                                                                                              |                                                                                                         |                                                                                                                      | Method: ME-(AU                                                                                                                                                     | )-[ENV]AN040/AN                                                                                                                                        |
| otal Recoverable Elemen                                                                                                                                                                                                   |                                                                                     | <u> </u>                                                                     | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            |                                                                                                                                                                    | · · ·                                                                                                                                                  |
| otal Recoverable Elemen<br>Sample Name                                                                                                                                                                                    | Sample No.                                                                          | QC Ref                                                                       | Sampled                                                                                                      | Received                                                                                     | Extraction Due                                                                                          | Extracted                                                                                                            | Analysis Due                                                                                                                                                       | Analysed                                                                                                                                               |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2                                                                                                                                                                     |                                                                                     | <u> </u>                                                                     | Sampled 20 Jul 2020 20 Jul 2020                                                                              | Received<br>23 Jul 2020<br>23 Jul 2020                                                       | Extraction Due<br>16 Jan 2021<br>16 Jan 2021                                                            | Extracted 27 Jul 2020 27 Jul 2020                                                                                    |                                                                                                                                                                    | · · ·                                                                                                                                                  |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5                                                                                                                                                      | Sample No.<br>SE209082.001<br>SE209082.004                                          | QC Ref<br>LB205303                                                           | 20 Jul 2020                                                                                                  | 23 Jul 2020                                                                                  | 16 Jan 2021                                                                                             | 27 Jul 2020                                                                                                          | Analysis Due<br>16 Jan 2021<br>16 Jan 2021                                                                                                                         | Analysed<br>29 Jul 2020<br>29 Jul 2020                                                                                                                 |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5<br>RH (Total Recoverable H                                                                                                                           | Sample No.<br>SE209082.001<br>SE209082.004<br>lydrocarbons) in Soll                 | QC Ref<br>LB205303<br>LB205303                                               | 20 Jul 2020<br>20 Jul 2020                                                                                   | 23 Jul 2020<br>23 Jul 2020                                                                   | 16 Jan 2021<br>16 Jan 2021                                                                              | 27 Jul 2020<br>27 Jul 2020                                                                                           | Analysis Due 16 Jan 2021 16 Jan 2021 Method: I                                                                                                                     | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN                                                                                                       |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5<br>RH (Total Recoverable H<br>Sample Name                                                                                                            | Sample No. SE209082.001 SE209082.004  lydrocarbons) in Soil Sample No.              | QC Ref<br>LB205303<br>LB205303                                               | 20 Jul 2020<br>20 Jul 2020<br>Sampled                                                                        | 23 Jul 2020<br>23 Jul 2020<br>Received                                                       | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due                                                            | 27 Jul 2020<br>27 Jul 2020<br>Extracted                                                                              | Analysis Due 16 Jan 2021 16 Jan 2021  Method: I  Analysis Due                                                                                                      | Analysed<br>29 Jul 2020<br>29 Jul 2020<br>ME-(AU)-[ENV]AN<br>Analysed                                                                                  |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5<br>IRH (Total Recoverable H<br>Sample Name<br>BH6_0.1-0.2                                                                                            | Sample No. SE209082.001 SE209082.004  lydrocarbons) in Soil Sample No. SE209082.001 | QC Ref<br>LB205303<br>LB205303<br>QC Ref<br>LB205134                         | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020                                                         | 23 Jul 2020<br>23 Jul 2020<br>Received<br>23 Jul 2020                                        | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due<br>03 Aug 2020                                             | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020                                                               | Analysis Due 16 Jan 2021 16 Jan 2021 Method: I Analysis Due 02 Sep 2020                                                                                            | Analysed 29 Jul 2020 29 Jul 2020  ME-(AU)-[ENV]AN  Analysed 29 Jul 2020                                                                                |
| otal Recoverable Elemen<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5<br>RH (Total Recoverable H<br>Sample Name<br>BH6_0.1-0.2<br>BH6_1.4-1.5                                                                              | Sample No. SE209082.001 SE209082.004  lydrocarbons) in Soil Sample No.              | QC Ref<br>LB205303<br>LB205303                                               | 20 Jul 2020<br>20 Jul 2020<br>Sampled                                                                        | 23 Jul 2020<br>23 Jul 2020<br>Received                                                       | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due                                                            | 27 Jul 2020<br>27 Jul 2020<br>Extracted                                                                              | Analysis Due 16 Jan 2021 16 Jan 2021  Method: I  Analysis Due 02 Sep 2020 02 Sep 2020                                                                              | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 29 Jul 2020                                                                      |
| otal Recoverable Elemen Sample Name BH6_0.1-0.2 BH6_1.4-1.5 RH (Total Recoverable H Sample Name BH6_0.1-0.2 BH6_1.4-1.5                                                                                                   | Sample No.                                                                          | QC Ref<br>LB205303<br>LB205303<br>QC Ref<br>LB205134<br>LB205134             | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020                                          | 23 Jul 2020<br>23 Jul 2020<br>Received<br>23 Jul 2020<br>23 Jul 2020                         | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due<br>03 Aug 2020<br>03 Aug 2020                              | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020<br>24 Jul 2020                                                | Analysis Due 16 Jan 2021 16 Jan 2021  Method: I  Analysis Due 02 Sep 2020 02 Sep 2020  Method: I                                                                   | Analysed 29 Jul 2020 29 Jul 2020  ME-(AU)-[ENV]Al Analysed 29 Jul 2020 29 Jul 2020  ME-(AU)-[ENV]Al                                                    |
| otal Recoverable Elemen Sample Name BH6_0.1-0.2 BH6_1.4-1.5 'RH (Total Recoverable H Sample Name BH6_0.1-0.2 BH6_1.4-1.5 'OC's in Soil Sample Name                                                                        | Sample No.                                                                          | QC Ref LB205303 LB205303  QC Ref LB205134  LB205134  QC Ref                  | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020<br>Sampled                               | 23 Jul 2020<br>23 Jul 2020<br>Received<br>23 Jul 2020<br>23 Jul 2020<br>Received             | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due<br>03 Aug 2020<br>03 Aug 2020                              | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020<br>24 Jul 2020<br>Extracted                                   | Analysis Due  16 Jan 2021  16 Jan 2021  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  Method: I  Analysis Due                                                 | Analysed 29 Jul 2020 29 Jul 2020  ME-(AU)-[ENV]Al Analysed 29 Jul 2020 29 Jul 2020  ME-(AU)-[ENV]Al Analysed                                           |
| otal Recoverable Elemen Sample Name BH6_0.1-0.2 BH6_1.4-1.5 RH (Total Recoverable H Sample Name BH6_0.1-0.2 BH6_1.4-1.5 OC's in Soil Sample Name BH6_0.1-0.2                                                              | Sample No.                                                                          | QC Ref LB205303 LB205303  QC Ref LB205134  LB205134  QC Ref LB205134         | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020                | 23 Jul 2020 23 Jul 2020  Received 23 Jul 2020  Received 23 Jul 2020                          | 16 Jan 2021 16 Jan 2021  Extraction Due 03 Aug 2020 03 Aug 2020  Extraction Due 03 Aug 2020             | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020<br>24 Jul 2020<br>Extracted<br>24 Jul 2020                    | Analysis Due 16 Jan 2021 16 Jan 2021  Method: I  Analysis Due 02 Sep 2020 02 Sep 2020  Method: I  Analysis Due 02 Sep 2020                                         | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]Al Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]Al Analysed 29 Jul 2020                                 |
| otal Recoverable Elemen Sample Name 3H6_0.1-0.2 3H6_1.4-1.5 RH (Total Recoverable H Sample Name 3H6_0.1-0.2 3H6_1.4-1.5 OC's in Soil Sample Name 3H6_0.1-0.2 3H6_0.1-0.2                                                  | Sample No.                                                                          | QC Ref LB205303 LB205303  QC Ref LB205134  LB205134  QC Ref                  | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020<br>Sampled                               | 23 Jul 2020<br>23 Jul 2020<br>Received<br>23 Jul 2020<br>23 Jul 2020<br>Received             | 16 Jan 2021<br>16 Jan 2021<br>Extraction Due<br>03 Aug 2020<br>03 Aug 2020                              | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020<br>24 Jul 2020<br>Extracted                                   | Analysis Due  16 Jan 2021  16 Jan 2021  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  02 Sep 2020          | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 29 Jul 2020 29 Jul 2020                     |
| otal Recoverable Elemen Sample Name BH6_0.1-0.2 BH6_1.4-1.5 RH (Total Recoverable H Sample Name BH6_0.1-0.2 BH6_1.4-1.5 OC's in Soil Sample Name BH6_0.1-0.2 BH6_1.4-1.5 OC's in Soil Sample Name BH6_0.1-0.2 BH6_1.4-1.5 | Sample No.                                                                          | QC Ref LB205303 LB205303  QC Ref LB205134 LB205134  QC Ref LB205133 LB205133 | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020 | 23 Jul 2020 23 Jul 2020  Received 23 Jul 2020  23 Jul 2020  Received 23 Jul 2020 23 Jul 2020 | 16 Jan 2021 16 Jan 2021  Extraction Due 03 Aug 2020 03 Aug 2020  Extraction Due 03 Aug 2020 03 Aug 2020 | 27 Jul 2020 27 Jul 2020  Extracted 24 Jul 2020  Extracted 24 Jul 2020  Extracted 24 Jul 2020 24 Jul 2020 24 Jul 2020 | Analysis Due  16 Jan 2021  16 Jan 2021  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  Method: I  Method: I | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN ME-(AU)-[ENV]AN |
|                                                                                                                                                                                                                           | Sample No.                                                                          | QC Ref LB205303 LB205303  QC Ref LB205134  LB205134  QC Ref LB205134         | 20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020<br>20 Jul 2020<br>Sampled<br>20 Jul 2020                | 23 Jul 2020 23 Jul 2020  Received 23 Jul 2020  Received 23 Jul 2020                          | 16 Jan 2021 16 Jan 2021  Extraction Due 03 Aug 2020 03 Aug 2020  Extraction Due 03 Aug 2020             | 27 Jul 2020<br>27 Jul 2020<br>Extracted<br>24 Jul 2020<br>24 Jul 2020<br>Extracted<br>24 Jul 2020                    | Analysis Due  16 Jan 2021  16 Jan 2021  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  Method: I  Analysis Due  02 Sep 2020  02 Sep 2020  02 Sep 2020          | Analysed 29 Jul 2020 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 ME-(AU)-[ENV]AN Analysed 29 Jul 2020 29 Jul 2020 29 Jul 2020                     |

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# SURROGATES



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

| OC Pesticides in Soil                           |             |               |       | Method: M | E-(AU)-[ENV]AN420 |
|-------------------------------------------------|-------------|---------------|-------|-----------|-------------------|
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| Tetrachloro-m-xylene (TCMX) (Surrogate)         | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 106               |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 97                |
| OP Pesticides in Soil                           |             |               |       | Method: M | E-(AU)-[ENV]AN420 |
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| 2-fluorobiphenyl (Surrogate)                    | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 87                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 87                |
| d14-p-terphenyl (Surrogate)                     | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 85                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 84                |
| PAH (Polynuclear Aromatic Hydrocarbons) in Soil |             |               |       | Method: M | E-(AU)-[ENV]AN420 |
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| 2-fluorobiphenyl (Surrogate)                    | BH6_0.1-0.2 | SE209082.001  | %     | 70 - 130% | 87                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 70 - 130% | 87                |
| d14-p-terphenyl (Surrogate)                     | BH6_0.1-0.2 | SE209082.001  | %     | 70 - 130% | 85                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 70 - 130% | 84                |
| d5-nitrobenzene (Surrogate)                     | BH6_0.1-0.2 | SE209082.001  | %     | 70 - 130% | 79                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 70 - 130% | 81                |
| PCBs in Soil                                    |             |               |       | Method: M | E-(AU)-[ENV]AN420 |
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| Tetrachloro-m-xylene (TCMX) (Surrogate)         | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 106               |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 97                |
| OC's in Soil                                    |             |               |       | Method: M | E-(AU)-[ENV]AN43  |
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| Bromofluorobenzene (Surrogate)                  | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 88                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 97                |
| d4-1,2-dichloroethane (Surrogate)               | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 79                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 91                |
| d8-toluene (Surrogate)                          | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 77                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 87                |
| olatile Petroleum Hydrocarbons in Soil          |             |               |       | Method: M | E-(AU)-[ENV]AN43  |
| Parameter                                       | Sample Name | Sample Number | Units | Criteria  | Recovery %        |
| Bromofluorobenzene (Surrogate)                  | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 88                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 97                |
| d4-1,2-dichloroethane (Surrogate)               | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 79                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 91                |
| d8-toluene (Surrogate)                          | BH6_0.1-0.2 | SE209082.001  | %     | 60 - 130% | 77                |
|                                                 | BH6_1.4-1.5 | SE209082.004  | %     | 60 - 130% | 87                |
|                                                 |             |               |       |           |                   |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB205314.001  | Mercury   | mg/kg | 0.05 | <0.05  |

#### OC Pesticides in Soil

# Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                               | Units | LOR | Result |
|---------------|-----------------------------------------|-------|-----|--------|
| B205134.001   | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1   |
|               | Alpha BHC                               | mg/kg | 0.1 | <0.1   |
|               | Lindane                                 | mg/kg | 0.1 | <0.1   |
|               | Heptachlor                              | mg/kg | 0.1 | <0.1   |
|               | Aldrin                                  | mg/kg | 0.1 | <0.1   |
|               | Beta BHC                                | mg/kg | 0.1 | <0.1   |
|               | Delta BHC                               | mg/kg | 0.1 | <0.1   |
|               | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1   |
|               | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2   |
|               | Gamma Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | Alpha Chlordane                         | mg/kg | 0.1 | <0.1   |
|               | p,p'-DDE                                | mg/kg | 0.1 | <0.1   |
|               | Dieldrin                                | mg/kg | 0.2 | <0.2   |
|               | Endrin                                  | mg/kg | 0.2 | <0.2   |
|               | Beta Endosulfan                         | mg/kg | 0.2 | <0.2   |
|               | p,p'-DDD                                | mg/kg | 0.1 | <0.1   |
|               | p,p'-DDT                                | mg/kg | 0.1 | <0.1   |
|               | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1   |
|               | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1   |
|               | Methoxychlor                            | mg/kg | 0.1 | <0.1   |
|               | Endrin Ketone                           | mg/kg | 0.1 | <0.1   |
|               | Isodrin                                 | mg/kg | 0.1 | <0.1   |
|               | Mirex                                   | mg/kg | 0.1 | <0.1   |
| Surrogates    | Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 102    |

#### **OP Pesticides in Soil**

#### Method: ME-(AU)-[ENV]AN420

| Of 1 obtoided in ooil |                                   |       | Mou | od. ME (10) [EIV] 1141 |
|-----------------------|-----------------------------------|-------|-----|------------------------|
| Sample Number         | Parameter                         | Units | LOR | Result                 |
| LB205134.001          | Dichlorvos                        | mg/kg | 0.5 | <0.5                   |
|                       | Dimethoate                        | mg/kg | 0.5 | <0.5                   |
|                       | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5                   |
|                       | Fenitrothion                      | mg/kg | 0.2 | <0.2                   |
|                       | Malathion                         | mg/kg | 0.2 | <0.2                   |
|                       | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2                   |
|                       | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2                   |
|                       | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2                   |
|                       | Methidathion                      | mg/kg | 0.5 | <0.5                   |
|                       | Ethion                            | mg/kg | 0.2 | <0.2                   |
|                       | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2                   |
| Surrogates            | 2-fluorobiphenyl (Surrogate)      | %     | -   | 85                     |
|                       | d14-p-terphenyl (Surrogate)       | %     | -   | 90                     |

# PAH (Polynuclear Aromatic Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN420

| va va cho v       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| rameter           | Units                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LOR                                                                                                                                                                                                                                                                                                                                                                                                                       | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| phthalene         | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| nethylnaphthalene | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| nethylnaphthalene | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| enaphthylene      | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| enaphthene        | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| orene             | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| enanthrene        | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| hracene           | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| oranthene         | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ene               | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| nzo(a)anthracene  | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ysene             | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| nzo(a)pyrene      | mg/kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.1                                                                                                                                                                                                                                                                                                                                                                                                                       | <0.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| er<br>er<br>er    | ethylnaphthalene ethyln | ethylnaphthalene         mg/kg           ethylnaphthalene         mg/kg           ethylnaphthalene         mg/kg           eaphthylene         mg/kg           eaphthene         mg/kg           erene         mg/kg           eranthrene         mg/kg           raracene         mg/kg           ranthene         mg/kg           ne         mg/kg           to(a)anthracene         mg/kg           sene         mg/kg | gettylnaphthalene         mg/kg         0.1           gettylnaphthalene         mg/kg         0.1           gaphthylene         mg/kg         0.1           gaphthene         mg/kg         0.1           genee         mg/kg         0.1           gracene         mg/kg         0.1 |

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# **METHOD BLANKS**

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Sample Number |       | Parameter                    | Units | LOR | Result |
|---------------|-------|------------------------------|-------|-----|--------|
| LB205134.001  |       | Indeno(1,2,3-cd)pyrene       | mg/kg | 0.1 | <0.1   |
|               |       | Dibenzo(ah)anthracene        | mg/kg | 0.1 | <0.1   |
|               |       | Benzo(ghi)perylene           | mg/kg | 0.1 | <0.1   |
|               |       | Total PAH (18)               | mg/kg | 0.8 | <0.8   |
| Surrog        | gates | d5-nitrobenzene (Surrogate)  | %     | -   | 85     |
|               |       | 2-fluorobiphenyl (Surrogate) | %     | -   | 85     |
|               |       | d14-p-terphenyl (Surrogate)  | %     | -   | 90     |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                                  | Units | LOR | Result |
|---------------|--------------------------------------------|-------|-----|--------|
| LB205134.001  | Arochlor 1016                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1221                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1232                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1242                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1248                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1254                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1260                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1262                              | mg/kg | 0.2 | <0.2   |
|               | Arochlor 1268                              | mg/kg | 0.2 | <0.2   |
|               | Total PCBs (Arochlors)                     | mg/kg | 1   | <1     |
| Surrogate     | es Tetrachloro-m-xylene (TCMX) (Surrogate) | %     | -   | 102    |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

# Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB205303.001  | Arsenic, As  | mg/kg | 1   | <1     |
|               | Cadmium, Cd  | mg/kg | 0.3 | <0.3   |
|               | Chromium, Cr | mg/kg | 0.5 | <0.5   |
|               | Copper, Cu   | mg/kg | 0.5 | <0.5   |
|               | Nickel, Ni   | mg/kg | 0.5 | <0.5   |
|               | Lead, Pb     | mg/kg | 1   | <1     |
|               | Zinc, Zn     | mg/kg | 2   | <2.0   |
|               | ·            |       |     |        |

#### TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter         | Units | LOR | Result |
|---------------|-------------------|-------|-----|--------|
| LB205134.001  | TRH C10-C14       | mg/kg | 20  | <20    |
|               | TRH C15-C28       | mg/kg | 45  | <45    |
|               | TRH C29-C36       | mg/kg | 45  | <45    |
|               | TRH C37-C40       | mg/kg | 100 | <100   |
|               | TRH C10-C36 Total | mg/kg | 110 | <110   |

#### VOC's in Soil

# Method: ME-(AU)-[ENV]AN433

| Sample Number |                     | Parameter                         | Units | LOR          | Result |
|---------------|---------------------|-----------------------------------|-------|--------------|--------|
| LB205133.001  | Monocyclic Aromatic | Benzene                           | mg/kg | 0.1          | <0.1   |
|               | Hydrocarbons        | Toluene                           | mg/kg | 0.1          | <0.1   |
|               |                     | Ethylbenzene                      | mg/kg | 0.1          | <0.1   |
|               |                     | m/p-xylene                        | mg/kg | 0.2          | <0.2   |
|               |                     | o-xylene                          | mg/kg | 0.1          | <0.1   |
|               | Polycyclic VOCs     | Naphthalene                       | mg/kg | 0.1          | <0.1   |
|               | Surrogates          | d4-1,2-dichloroethane (Surrogate) | %     | <del>-</del> | 73     |
|               |                     | d8-toluene (Surrogate)            | %     | =            | 76     |
|               |                     | Bromofluorobenzene (Surrogate)    | %     | <u>-</u>     | 78     |
|               | Totals              | Total BTEX                        | mg/kg | 0.6          | <0.6   |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result |
|---------------|------------|-----------------------------------|-------|-----|--------|
| LB205133.001  |            | TRH C6-C9                         | mg/kg | 20  | <20    |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | %     | -   | 73     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

Original Duplicate Parameter

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury in Soil

#### Method: ME-(AU)-[ENV]AN312

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|--------------|------------|-------|
| SE209074.025 | LB205314.014 | Mercury   | mg/kg | 0.05 |          | 0.0095890066 | 200        | 0     |
| SE209082.004 | LB205314.024 | Mercury   | mg/kg | 0.05 | <0.05    | <0.05        | 200        | 0     |

#### **Moisture Content**

#### Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|---------------|------------|-------|
| SE209085.003 | LB205135.011 | % Moisture | %w/w  | 1   | 25       | 25.8780036968 | 34         | 3     |
| SE209109.003 | LB205135.018 | % Moisture | %w/w  | 1   |          | 76.8669527896 | 44         | 6     |

#### OC Pesticides in Soil

### Method: ME-(AU)-[ENV]AN420

Units LOR Original Duplicate Criteria % RPD %

| SE209085.004 | LB205134.023 |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|--------------|--------------|------------|-----------------------------------------|-------|-----|-------|-------|-----|---|
|              |              |            | Alpha BHC                               | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Lindane                                 | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Heptachlor                              | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Aldrin                                  | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Beta BHC                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Delta BHC                               | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Heptachlor epoxide                      | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDE                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Alpha Endosulfan                        | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | Gamma Chlordane                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Alpha Chlordane                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | trans-Nonachlor                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | p,p'-DDE                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Dieldrin                                | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | Endrin                                  | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDD                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDT                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Beta Endosulfan                         | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | p,p'-DDD                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | p,p'-DDT                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Endosulfan sulphate                     | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Endrin Aldehyde                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Methoxychlor                            | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Endrin Ketone                           | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Isodrin                                 | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Mirex                                   | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Total CLP OC Pesticides                 | mg/kg | 1   | 0     | 0     | 200 | 0 |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.149 | 0.158 | 30  | 6 |
| E209109.003  | LB205134.021 |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Alpha BHC                               | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Lindane                                 | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Heptachlor                              | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Aldrin                                  | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Beta BHC                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Delta BHC                               | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Heptachlor epoxide                      | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDE                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Alpha Endosulfan                        | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | Gamma Chlordane                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Alpha Chlordane                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | trans-Nonachlor                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | p,p'-DDE                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Dieldrin                                | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | Endrin                                  | mg/kg | 0.2 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDD                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | o,p'-DDT                                | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | Beta Endosulfan                         | mg/kg | 0.1 | 0     | 0     | 200 | 0 |
|              |              |            | p,p'-DDD                                | mg/kg | 0.2 | 0     | 0     | 200 | 0 |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### OC Pesticides in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE209109.003 | LB205134.021 |            | p,p'-DDT                                | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Endosulfan sulphate                     | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Endrin Aldehyde                         | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Methoxychlor                            | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Endrin Ketone                           | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Isodrin                                 | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Mirex                                   | mg/kg | 0.1 | 0        | 0         | 200        | 0     |
|              |              |            | Total CLP OC Pesticides                 | mg/kg | 1   | 0        | 0         | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.143    | 0.164     | 30         | 14    |

#### **OP Pesticides in Soil**

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original     | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|--------------|---------------|------------|-------|
| SE209085.004 | LB205134.024 |            | Dichlorvos                        | mg/kg | 0.5 | 0            | 0             | 200        | 0     |
|              |              |            | Dimethoate                        | mg/kg | 0.5 | 0.0042408669 | 0.0007399367  | 200        | 0     |
|              |              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | 0.0026056713 | 30.0031591239 | 200        | 0     |
|              |              |            | Fenitrothion                      | mg/kg | 0.2 | 0.0142199796 | 0.0054469187  | 200        | 0     |
|              |              |            | Malathion                         | mg/kg | 0.2 | 0.0012174043 | 30.0026907261 | 200        | 0     |
|              |              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 0            | 0.0038273496  | 200        | 0     |
|              |              |            | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | 0.0329407223 | 30.0310769340 | 200        | 0     |
|              |              |            | Bromophos Ethyl                   | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Methidathion                      | mg/kg | 0.5 | 0.0044898813 | 30.0042651391 | 200        | 0     |
|              |              |            | Ethion                            | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Total OP Pesticides*              | mg/kg | 1.7 | 0            | 0             | 200        | 0     |
|              |              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.3930799115 | 0.4290622642  | 30         | 9     |
|              |              |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4313435891 | 0.4324566911  | 30         | 0     |
| SE209109.003 | LB205134.021 |            | Dichlorvos                        | mg/kg | 0.5 | 0            | 0             | 200        | 0     |
|              |              |            | Dimethoate                        | mg/kg | 0.5 | 0            | 0.0010708014  | 200        | 0     |
|              |              |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | 0.0820530985 | 0.0547835416  | 200        | 0     |
|              |              |            | Fenitrothion                      | mg/kg | 0.2 | 0.0146332118 | 0.0159853971  | 200        | 0     |
|              |              |            | Malathion                         | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | 0.0058674973 | 3 0           | 200        | 0     |
|              |              |            | Bromophos Ethyl                   | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Methidathion                      | mg/kg | 0.5 | 0            | 0             | 200        | 0     |
|              |              |            | Ethion                            | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Total OP Pesticides*              | mg/kg | 1.7 | 0            | 0             | 200        | 0     |
|              |              | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4372822648 | 30.4591740867 | 30         | 5     |
|              |              |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4186194666 | 0.4468671377  | 30         | 7     |

# PAH (Polynuclear Aromatic Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter                                                                                                              | Units | LOR | Original     | Duplicate    | Criteria % | RPD % |
|--------------|--------------|------------------------------------------------------------------------------------------------------------------------|-------|-----|--------------|--------------|------------|-------|
| SE209085.004 | LB205134.025 | Naphthalene                                                                                                            | mg/kg | 0.1 | 0.0047111425 | 0.0045554485 | 200        | 0     |
|              |              | 2-methylnaphthalene                                                                                                    | mg/kg | 0.1 | 0.0037703019 | 0.0034989812 | 200        | 0     |
|              |              | 1-methylnaphthalene                                                                                                    | mg/kg | 0.1 | 0.0046497476 | 0.0041428135 | 200        | 0     |
|              |              | Acenaphthylene                                                                                                         | mg/kg | 0.1 | 0.0122574609 | 0.0105192714 | 200        | 0     |
|              |              | Acenaphthene                                                                                                           | mg/kg | 0.1 | 0.0008980904 | 0.0020889373 | 200        | 0     |
|              |              | Fluorene                                                                                                               | mg/kg | 0.1 | 0.0045711873 | 0.0048799317 | 200        | 0     |
|              |              | Phenanthrene                                                                                                           | mg/kg | 0.1 | 0.0305910257 | 0.0316800365 | 200        | 0     |
|              |              | Anthracene                                                                                                             | mg/kg | 0.1 | 0.0295052715 | 0.0307607271 | 200        | 0     |
|              |              | Fluoranthene                                                                                                           | mg/kg | 0.1 | 0.0600198400 | 0.0615229958 | 195        | 0     |
|              |              | Pyrene                                                                                                                 | mg/kg | 0.1 | 0.0634899540 | 0.0688400504 | 181        | 0     |
|              |              | Benzo(a)anthracene                                                                                                     | mg/kg | 0.1 | 0.0456081072 | 0.0443854118 | 200        | 0     |
|              |              | Chrysene                                                                                                               | mg/kg | 0.1 | 0.0469086590 | 0.0441725778 | 200        | 0     |
|              |              | Benzo(b&j)fluoranthene                                                                                                 | mg/kg | 0.1 | 0.0469335497 | 0.0465952389 | 200        | 0     |
|              |              | Benzo(k)fluoranthene                                                                                                   | mg/kg | 0.1 | 0.0440699015 | 0.0415789494 | 200        | 0     |
|              |              | Benzo(a)pyrene                                                                                                         | mg/kg | 0.1 | 0.0445801789 | 0.0406396296 | 200        | 0     |
|              |              | Indeno(1,2,3-cd)pyrene                                                                                                 | mg/kg | 0.1 | 0.0096471472 | 0.0076009934 | 200        | 0     |
|              |              | Dibenzo(ah)anthracene                                                                                                  | mg/kg | 0.1 | 0.0010090094 | 0.0011030046 | 200        | 0     |
|              |              | Benzo(ghi)perylene                                                                                                     | mg/kg | 0.1 | 0.0133295584 | 0.0104231458 | 200        | 0     |
|              |              | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>mg/kg</td><td>0.2</td><td>0</td><td>0</td><td>200</td><td>0</td></lor=0<> | mg/kg | 0.2 | 0            | 0            | 200        | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                                                                                                                              | Units       | LOR | Original     | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|-----|--------------|---------------|------------|-------|
| SE209085.004 | LB205134.025 |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>0</td><td>0</td><td>200</td><td>0</td></lor=0<>           | TEQ (mg/kg) | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>mg/kg</td><td>0.3</td><td>0.242</td><td>0.242</td><td>134</td><td>0</td></lor=lor<>     | mg/kg       | 0.3 | 0.242        | 0.242         | 134        | 0     |
|              |              |            |                                                                                                                                        | TEQ (mg/kg) | 0.3 | 0.242        | 0.242         | 134        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>mg/kg</td><td>0.2</td><td>0.121</td><td>0.121</td><td>175</td><td>0</td></lor=lor> | mg/kg       | 0.2 | 0.121        | 0.121         | 175        | 0     |
|              |              |            |                                                                                                                                        | TEQ (mg/kg) | 0.2 | 0.121        | 0.121         | 175        | 0     |
|              |              |            | Total PAH (18)                                                                                                                         | mg/kg       | 0.8 | 0            | 0             | 200        | 0     |
|              |              | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                            | mg/kg       | -   | 0.4100216205 | 0.4119841301  | 30         | 0     |
|              |              |            | 2-fluorobiphenyl (Surrogate)                                                                                                           | mg/kg       | -   | 0.3930799115 | 0.4290622642  | 30         | 9     |
|              |              |            | d14-p-terphenyl (Surrogate)                                                                                                            | mg/kg       | -   | 0.431343589  | 10.4324566911 | 30         | 0     |
| E209109.003  | LB205134.021 |            | Naphthalene                                                                                                                            | mg/kg       | 0.1 | 0.0024642785 | 0.0025605444  | 200        | 0     |
|              |              |            | 2-methylnaphthalene                                                                                                                    | mg/kg       | 0.1 | 0.0022558070 | 0.0019982427  | 200        | 0     |
|              |              |            | 1-methylnaphthalene                                                                                                                    | mg/kg       | 0.1 | 0.002213777  | 10.0021734018 | 200        | 0     |
|              |              |            | Acenaphthylene                                                                                                                         | mg/kg       | 0.1 | 0.0069643548 | 30.0079629951 | 200        | 0     |
|              |              |            | Acenaphthene                                                                                                                           | mg/kg       | 0.1 | 0.0015309944 | 10.0009583908 | 200        | 0     |
|              |              |            | Fluorene                                                                                                                               | mg/kg       | 0.1 | 0.0024367130 | 0.0025694366  | 200        | 0     |
|              |              |            | Phenanthrene                                                                                                                           | mg/kg       | 0.1 | 0.0664295794 | 10.0611684949 | 187        | 0     |
|              |              |            | Anthracene                                                                                                                             | mg/kg       | 0.1 | 0.0639242162 | 20.0592682563 | 192        | 0     |
|              |              |            | Fluoranthene                                                                                                                           | mg/kg       | 0.1 | 0.081005717  | 10.0932778389 | 145        | 0     |
|              |              |            | Pyrene                                                                                                                                 | mg/kg       | 0.1 | 0.0789119134 | 10.0919432731 | 147        | 0     |
|              |              |            | Benzo(a)anthracene                                                                                                                     | mg/kg       | 0.1 | 0.0419023435 | 0.0710096433  | 200        | 0     |
|              |              |            | Chrysene                                                                                                                               | mg/kg       | 0.1 | 0.0413122809 | 0.0724695351  | 200        | 0     |
|              |              |            | Benzo(b&j)fluoranthene                                                                                                                 | mg/kg       | 0.1 | 0.0383625443 | 30.0360520412 | 200        | 0     |
|              |              |            | Benzo(k)fluoranthene                                                                                                                   | mg/kg       | 0.1 | 0.0342325595 | 0.0337905870  | 200        | 0     |
|              |              |            | Benzo(a)pyrene                                                                                                                         | mg/kg       | 0.1 | 0.0366693622 | 20.0174637909 | 200        | 0     |
|              |              |            | Indeno(1,2,3-cd)pyrene                                                                                                                 | mg/kg       | 0.1 | 0.0054382226 | 0.0059330114  | 200        | 0     |
|              |              |            | Dibenzo(ah)anthracene                                                                                                                  | mg/kg       | 0.1 | 0.000934237  | 1 0           | 200        | 0     |
|              |              |            | Benzo(ghi)perylene                                                                                                                     | mg/kg       | 0.1 | 0.0066731902 | 20.0065755355 | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>mg/kg</td><td>0.2</td><td>0</td><td>0</td><td>200</td><td>0</td></lor=0<>                 | mg/kg       | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            |                                                                                                                                        | TEQ (mg/kg) | 0.2 | 0            | 0             | 200        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>mg/kg</td><td>0.3</td><td>0.242</td><td>0.242</td><td>134</td><td>0</td></lor=lor<>     | mg/kg       | 0.3 | 0.242        | 0.242         | 134        | 0     |
|              |              |            |                                                                                                                                        | TEQ (mg/kg) | 0.3 | 0.242        | 0.242         | 134        | 0     |
|              |              |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>mg/kg</td><td>0.2</td><td>0.121</td><td>0.121</td><td>175</td><td>0</td></lor=lor> | mg/kg       | 0.2 | 0.121        | 0.121         | 175        | 0     |
|              |              |            |                                                                                                                                        | TEQ (mg/kg) | 0.2 | 0.121        | 0.121         | 175        | 0     |
|              |              |            | Total PAH (18)                                                                                                                         | mg/kg       | 0.8 | 0            | 0             | 200        | 0     |
|              |              | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                            | mg/kg       | -   | 0.3873046958 | 30.4205878005 | 30         | 8     |
|              |              |            | 2-fluorobiphenyl (Surrogate)                                                                                                           | mg/kg       | -   | 0.4372822648 | 30.4591740867 | 30         | 5     |
|              |              |            | d14-p-terphenyl (Surrogate)                                                                                                            | mg/kg       | -   | 0.4186194666 | 0.4468671377  | 30         | 7     |

#### PCBs in Soil

#### Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE209085.003 | LB205134.014 |            | Arochlor 1016                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1221                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | 0        | 0         | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.154    | 0.149     | 30         | 3     |
| SE209085.004 | LB205134.022 |            | Arochlor 1016                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1221                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | 0        | 0         | 200        | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### PCBs in Soil (continued) Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    |            | Parameter                               | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE209085.004 | LB205134.022 | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.149    | 0.158     | 30         | 6     |
| SE209109.003 | LB205134.021 |            | Arochlor 1016                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1221                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1232                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1242                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1248                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1254                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1260                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1262                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Arochlor 1268                           | mg/kg | 0.2 | 0        | 0         | 200        | 0     |
|              |              |            | Total PCBs (Arochlors)                  | mg/kg | 1   | 0        | 0         | 200        | 0     |
|              |              | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.143    | 0.164     | 30         | 14    |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

# Method: ME-(AU)-[ENV]AN040/AN320

| Original     | Duplicate    | Parameter    | Units | LOR | Original       | Duplicate   | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------------|-------------|------------|-------|
| SE209074.025 | LB205303.014 | Arsenic, As  | mg/kg | 1   | 2.4097339183   | 3.3128235   | 65         | 32    |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | 0.0280522459   | 0.0320535   | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 16.30387339802 | 3.565450375 | 33         | 36 ②  |
|              |              | Copper, Cu   | mg/kg | 0.5 | 4.5794141905   | 6.418242    | 39         | 33    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | 5.6950658099 7 | 7.605635625 | 38         | 29    |
|              |              | Lead, Pb     | mg/kg | 1   | 13.18501549081 | 7.734541625 | 36         | 29    |
|              |              | Zinc, Zn     | mg/kg | 2   | 38.18968387634 | 7.013528375 | 35         | 21    |
| SE209082.004 | LB205303.024 | Arsenic, As  | mg/kg | 1   | 1              | 2           | 103        | 40    |
|              |              | Cadmium, Cd  | mg/kg | 0.3 | <0.3           | <0.3        | 200        | 0     |
|              |              | Chromium, Cr | mg/kg | 0.5 | 2.5            | 5.1         | 43         | 68 ②  |
|              |              | Copper, Cu   | mg/kg | 0.5 | 0.6            | 1.0         | 91         | 46    |
|              |              | Nickel, Ni   | mg/kg | 0.5 | <0.5           | <0.5        | 177        | 0     |
|              |              | Lead, Pb     | mg/kg | 1   | 2              | 3           | 71         | 14    |
|              |              | Zinc, Zn     | mg/kg | 2   | <2.0           | <2.0        | 200        | 0     |

# TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    |             | Parameter                       | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|---------------------------------|-------|-----|----------|-----------|------------|-------|
| SE209085.005 | LB205134.023 |             | TRH C10-C14                     | mg/kg | 20  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | 0        | 0         | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | 0        | 0         | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | 0        | 0         | 200        | 0     |
| SE209109.003 | LB205134.021 |             | TRH C10-C14                     | mg/kg | 20  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C15-C28                     | mg/kg | 45  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C29-C36                     | mg/kg | 45  | 0        | 0         | 200        | 0     |
|              |              |             | TRH C37-C40                     | mg/kg | 100 | 0        | 0         | 200        | 0     |
|              |              |             | TRH C10-C36 Total               | mg/kg | 110 | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | 0        | 0         | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3)               | mg/kg | 90  | 0        | 0         | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4)               | mg/kg | 120 | 0        | 0         | 200        | 0     |

### VOC's in Soil

### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original    | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|-------------|---------------|------------|-------|
| SE209085.003 | LB205133.014 | Monocyclic | Benzene                           | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | 0           | 0.0035787128  | 200        | 0     |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | 0           | 0             | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.033837132 | 58.0450481542 | 50         | 0     |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### VOC's in Soil (continued) Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |            | Parameter                         | Units | LOR | Original    | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------|-----------------------------------|-------|-----|-------------|---------------|------------|-------|
| SE209085.003 | LB205133.014 | Surrogates | d8-toluene (Surrogate)            | mg/kg | -   | 8.337696858 | 48.2968818156 | 50         | 0     |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.130132374 | 99.5474623847 | 50         | 4     |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | 0           | 0             | 200        | 0     |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | 0           | 0             | 200        | 0     |
| SE209109.003 | LB205133.021 | Monocyclic | Benzene                           | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              | Aromatic   | Toluene                           | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              |            | Ethylbenzene                      | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              |            | m/p-xylene                        | mg/kg | 0.2 | 0           | 0             | 200        | 0     |
|              |              |            | o-xylene                          | mg/kg | 0.1 | 0           | 0             | 200        | 0     |
|              |              | Polycyclic | Naphthalene                       | mg/kg | 0.1 | 0           | 0.0078369713  | 200        | 0     |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.987709214 | 17.9836679811 | 50         | 12    |
|              |              |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.965289204 | 78.4201984616 | 50         | 6     |
|              |              |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.139326144 | 78.4892651971 | 50         | 7     |
|              |              | Totals     | Total Xylenes                     | mg/kg | 0.3 | 0           | 0             | 200        | 0     |
|              |              |            | Total BTEX                        | mg/kg | 0.6 | 0           | 0             | 200        | 0     |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                         | Units | LOR | Original     | Duplicate    | Criteria % | RPD % |
|--------------|--------------|-------------|-----------------------------------|-------|-----|--------------|--------------|------------|-------|
| SE209085.003 | LB205133.014 |             | TRH C6-C10                        | mg/kg | 25  | 2.3936495398 | 3.2936722459 | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | 2.0150362949 | 2.8682323629 | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.0338371325 | 8.0450481542 | 30         | 0     |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 8.3376968584 | 8.2968818156 | 30         | 0     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.1301323749 | 9.5474623847 | 30         | 4     |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | 0            | 0            | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 2.3936495398 | 3.2936722459 | 200        | 0     |
| SE209109.003 | LB205133.021 |             | TRH C6-C10                        | mg/kg | 25  | 2.3352336786 | 2.2624015683 | 200        | 0     |
|              |              |             | TRH C6-C9                         | mg/kg | 20  | 1.9690557571 | 1.8914265323 | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.9877092141 | 7.9836679811 | 30         | 12    |
|              |              |             | d8-toluene (Surrogate)            | mg/kg | -   | 8.9652892047 | 8.4201984616 | 30         | 6     |
|              |              |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.1393261447 | 8.4892651971 | 30         | 7     |
|              |              | VPH F Bands | Benzene (F0)                      | mg/kg | 0.1 | 0            | 0            | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 2.3352336786 | 2.2624015683 | 200        | 0     |

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# LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| Mercury in Soil |  |  |  | Method: ME-(AU)-[E | ENVJAN312 |
|-----------------|--|--|--|--------------------|-----------|
|                 |  |  |  |                    |           |

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB205314.002  | Mercury   | mg/kg | 0.05 | 0.20   | 0.2      | 70 - 130   | 98         |

#### **OC Pesticides in Soil** Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                                    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|----------------------------------------------|-------|-----|--------|----------|------------|------------|
| LB205134.002  | Heptachlor                                   | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 121        |
|               | Aldrin                                       | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 125        |
|               | Delta BHC                                    | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 119        |
|               | Dieldrin                                     | mg/kg | 0.2 | 0.3    | 0.2      | 60 - 140   | 126        |
|               | Endrin                                       | mg/kg | 0.2 | 0.2    | 0.2      | 60 - 140   | 121        |
|               | p,p'-DDT                                     | mg/kg | 0.1 | 0.2    | 0.2      | 60 - 140   | 78         |
| Surrog        | ates Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.15   | 0.15     | 40 - 130   | 98         |

#### **OP Pesticides in Soil** Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB205134.002  | Dichlorvos                        | mg/kg | 0.5 | 1.6    | 2        | 60 - 140   | 78         |
|               | Diazinon (Dimpylate)              | mg/kg | 0.5 | 1.6    | 2        | 60 - 140   | 78         |
|               | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | 1.6    | 2        | 60 - 140   | 81         |
|               | Ethion                            | mg/kg | 0.2 | 1.4    | 2        | 60 - 140   | 68         |
| Surrogate     | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4    | 0.5      | 40 - 130   | 84         |
|               | d14-n-ternhenyl (Surrogate)       | ma/ka | _   | 0.4    | 0.5      | 40 - 130   | 82         |

| PAH (Polynuclear Aromatic Hydroc | arbons) in Soil              |       |     |        | N        | lethod: ME-(A | U)-[ENV]AN420 |
|----------------------------------|------------------------------|-------|-----|--------|----------|---------------|---------------|
| Sample Number                    | Parameter                    | Units | LOR | Result | Expected | Criteria %    | Recovery %    |
| LB205134.002                     | Naphthalene                  | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 109           |
|                                  | Acenaphthylene               | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 111           |
|                                  | Acenaphthene                 | mg/kg | 0.1 | 4.3    | 4        | 60 - 140      | 107           |
|                                  | Phenanthrene                 | mg/kg | 0.1 | 4.5    | 4        | 60 - 140      | 112           |
|                                  | Anthracene                   | mg/kg | 0.1 | 4.2    | 4        | 60 - 140      | 104           |
|                                  | Fluoranthene                 | mg/kg | 0.1 | 4.6    | 4        | 60 - 140      | 114           |
|                                  | Pyrene                       | mg/kg | 0.1 | 4.4    | 4        | 60 - 140      | 110           |
|                                  | Benzo(a)pyrene               | mg/kg | 0.1 | 4.1    | 4        | 60 - 140      | 102           |
| Surrogates                       | d5-nitrobenzene (Surrogate)  | mg/kg | -   | 0.4    | 0.5      | 40 - 130      | 77            |
|                                  | 2-fluorobiphenyl (Surrogate) | mg/kg | -   | 0.4    | 0.5      | 40 - 130      | 85            |

#### PCBs in Soil

| PCBs in Soil  | CBs in Soil   |       |     |        |          | Method: ME-(A | U)-[ENV]AN420 |
|---------------|---------------|-------|-----|--------|----------|---------------|---------------|
| Sample Number | Parameter     | Units | LOR | Result | Expected | Criteria %    | Recovery %    |
| LB205134.002  | Arochlor 1260 | mg/kg | 0.2 | 0.5    | 0.4      | 60 - 140      | 126           |

mg/kg

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

d14-p-terphenyl (Surrogate)

# Method: ME-(AU)-[ENV]AN040/AN320

40 - 130

80

0.4

0.5

| Sample Number | Parameter    | Units | LOR | Result | Expected | Criteria % | Recovery of |
|---------------|--------------|-------|-----|--------|----------|------------|-------------|
| LB205303.002  | Arsenic, As  | mg/kg | 1   | 320    | 318.22   | 80 - 120   | 100         |
|               | Cadmium, Cd  | mg/kg | 0.3 | 4.9    | 5.41     | 80 - 120   | 90          |
|               | Chromium, Cr | mg/kg | 0.5 | 37     | 38.31    | 80 - 120   | 96          |
|               | Copper, Cu   | mg/kg | 0.5 | 290    | 290      | 80 - 120   | 102         |
|               | Nickel, Ni   | mg/kg | 0.5 | 180    | 187      | 80 - 120   | 99          |
|               | Lead, Pb     | mg/kg | 1   | 92     | 89.9     | 80 - 120   | 102         |
|               | Zinc. Zn     | ma/ka | 2   | 270    | 273      | 80 - 120   | 99          |

# TRH (Total Recoverable Hydrocarbons) in Soil

| TRH (Total Recover | able Hydrocarbor | ns) in Soil       |       |     |        | N        | Method: ME-(AU)-[ENV]AN403 |            |  |  |
|--------------------|------------------|-------------------|-------|-----|--------|----------|----------------------------|------------|--|--|
| Sample Number      |                  | Parameter         | Units | LOR | Result | Expected | Criteria %                 | Recovery % |  |  |
| LB205134.002       |                  | TRH C10-C14       | mg/kg | 20  | 33     | 40       | 60 - 140                   | 83         |  |  |
|                    |                  | TRH C15-C28       | mg/kg | 45  | <45    | 40       | 60 - 140                   | 95         |  |  |
|                    |                  | TRH C29-C36       | mg/kg | 45  | <45    | 40       | 60 - 140                   | 75         |  |  |
|                    | TRH F Bands      | TRH >C10-C16      | mg/kg | 25  | 31     | 40       | 60 - 140                   | 78         |  |  |
|                    |                  | TRH >C16-C34 (F3) | mg/kg | 90  | <90    | 40       | 60 - 140                   | 83         |  |  |
|                    |                  | TRH >C34-C40 (F4) | mg/kg | 120 | <120   | 20       | 60 - 140                   | 120        |  |  |

#### VOC's in Soil

| Sample Number | Parameter | Units | LOR |
|---------------|-----------|-------|-----|

Method: ME-(AU)-[ENV]AN433

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# LABORATORY CONTROL SAMPLES

SE209082 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### VOC's in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB205133.002  | Monocyclic | Benzene                           | mg/kg | 0.1 | 4.3    | 5        | 60 - 140   | 86         |
|               | Aromatic   | Toluene                           | mg/kg | 0.1 | 4.3    | 5        | 60 - 140   | 87         |
|               |            | Ethylbenzene                      | mg/kg | 0.1 | 4.4    | 5        | 60 - 140   | 89         |
|               |            | m/p-xylene                        | mg/kg | 0.2 | 8.6    | 10       | 60 - 140   | 86         |
|               |            | o-xylene                          | mg/kg | 0.1 | 4.4    | 5        | 60 - 140   | 88         |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.0    | 10       | 70 - 130   | 90         |
|               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.8    | 10       | 70 - 130   | 88         |
|               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.4    | 10       | 70 - 130   | 94         |

#### Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| · · · · · · · · · · · · · · · · · · · |             |                                   |       |     |        |          |            |            |
|---------------------------------------|-------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| Sample Number                         |             | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
| LB205133.002                          |             | TRH C6-C10                        | mg/kg | 25  | 66     | 92.5     | 60 - 140   | 72         |
|                                       |             | TRH C6-C9                         | mg/kg | 20  | 60     | 80       | 60 - 140   | 75         |
|                                       | Surrogates  | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 9.0    | 10       | 70 - 130   | 90         |
|                                       |             | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 9.4    | 10       | 70 - 130   | 94         |
|                                       | VPH F Bands | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 40     | 62.5     | 60 - 140   | 64         |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury in Soil

Method: ME-(AU)-[ENV]AN312

| QC Sample    | Sample Number | Parameter | Units | LOR  | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|------|--------|----------|-------|-----------|
| SE209064.001 | LB205314.004  | Mercury   | mg/kg | 0.05 | 0.25   | 0.07     | 0.2   | 91        |

#### **OC Pesticides in Soil**

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                               | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------------|-------|-----|----------|-------|-----------|
| SE209082.001 | LB205134.022  |            | Hexachlorobenzene (HCB)                 | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Alpha BHC                               | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Lindane                                 | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Heptachlor                              | mg/kg | 0.1 | <0.1     | 0.2   | 130       |
|              |               |            | Aldrin                                  | mg/kg | 0.1 | <0.1     | 0.2   | 131       |
|              |               |            | Beta BHC                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Delta BHC                               | mg/kg | 0.1 | <0.1     | 0.2   | 126       |
|              |               |            | Heptachlor epoxide                      | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | o,p'-DDE                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Alpha Endosulfan                        | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Gamma Chlordane                         | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Alpha Chlordane                         | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | trans-Nonachlor                         | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | p,p'-DDE                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Dieldrin                                | mg/kg | 0.2 | <0.2     | 0.2   | 135       |
|              |               |            | Endrin                                  | mg/kg | 0.2 | <0.2     | 0.2   | 131       |
|              |               |            | o,p'-DDD                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | o,p'-DDT                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Beta Endosulfan                         | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | p,p'-DDD                                | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | p,p'-DDT                                | mg/kg | 0.1 | <0.1     | 0.2   | 87        |
|              |               |            | Endosulfan sulphate                     | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Endrin Aldehyde                         | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Methoxychlor                            | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Endrin Ketone                           | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Isodrin                                 | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Mirex                                   | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               |            | Total CLP OC Pesticides                 | mg/kg | 1   | <1       | -     | -         |
|              |               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0.16     | -     | 104       |

#### OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|----------|-------|-----------|
| SE209082.001 | LB205134.023  |            | Dichlorvos                        | mg/kg | 0.5 | <0.5     | 2     | 113       |
|              |               |            | Dimethoate                        | mg/kg | 0.5 | <0.5     | -     | -         |
|              |               |            | Diazinon (Dimpylate)              | mg/kg | 0.5 | <0.5     | 2     | 100       |
|              |               |            | Fenitrothion                      | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Malathion                         | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Chlorpyrifos (Chlorpyrifos Ethyl) | mg/kg | 0.2 | <0.2     | 2     | 108       |
|              |               |            | Parathion-ethyl (Parathion)       | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Bromophos Ethyl                   | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Methidathion                      | mg/kg | 0.5 | <0.5     | -     | -         |
|              |               |            | Ethion                            | mg/kg | 0.2 | <0.2     | 2     | 75        |
|              |               |            | Azinphos-methyl (Guthion)         | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Total OP Pesticides*              | mg/kg | 1.7 | <1.7     | -     | -         |
|              |               | Surrogates | 2-fluorobiphenyl (Surrogate)      | mg/kg | -   | 0.4      | -     | 82        |
|              |               |            | d14-p-terphenyl (Surrogate)       | mg/kg | -   | 0.4      | -     | 88        |

# PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number | Parameter           | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|---------------------|-------|-----|----------|-------|-----------|
| SE209082.001 | LB205134.023  | Naphthalene         | mg/kg | 0.1 | <0.1     | 4     | 129       |
|              |               | 2-methylnaphthalene | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               | 1-methylnaphthalene | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               | Acenaphthylene      | mg/kg | 0.1 | <0.1     | 4     | 132       |
|              |               | Acenaphthene        | mg/kg | 0.1 | <0.1     | 4     | 124       |
|              |               | Fluorene            | mg/kg | 0.1 | <0.1     | -     | -         |
|              |               | Phenanthrene        | mg/kg | 0.1 | <0.1     | 4     | 128       |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

#### Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                                                                                                                      | Units       | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----|----------|-------|-----------|
| SE209082.001 | LB205134.023  |            | Anthracene                                                                                                                     | mg/kg       | 0.1 | <0.1     | 4     | 126       |
|              |               |            | Fluoranthene                                                                                                                   | mg/kg       | 0.1 | 0.2      | 4     | 129       |
|              |               |            | Pyrene                                                                                                                         | mg/kg       | 0.1 | 0.2      | 4     | 134       |
|              |               |            | Benzo(a)anthracene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Chrysene                                                                                                                       | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(b&j)fluoranthene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(k)fluoranthene                                                                                                           | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(a)pyrene                                                                                                                 | mg/kg       | 0.1 | <0.1     | 4     | 123       |
|              |               |            | Indeno(1,2,3-cd)pyrene                                                                                                         | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Dibenzo(ah)anthracene                                                                                                          | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Benzo(ghi)perylene                                                                                                             | mg/kg       | 0.1 | <0.1     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=0<>         | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>-</td><td>-</td></lor=lor<>     | TEQ (mg/kg) | 0.3 | <0.3     | -     | -         |
|              |               |            | Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>-</td><td>-</td></lor=lor> | TEQ (mg/kg) | 0.2 | <0.2     | -     | -         |
|              |               |            | Total PAH (18)                                                                                                                 | mg/kg       | 0.8 | <0.8     | -     | -         |
|              |               | Surrogates | d5-nitrobenzene (Surrogate)                                                                                                    | mg/kg       | -   | 0.4      | -     | 78        |
|              |               |            | 2-fluorobiphenyl (Surrogate)                                                                                                   | mg/kg       | -   | 0.4      | -     | 82        |
|              |               |            | d14-p-terphenyl (Surrogate)                                                                                                    | mg/kg       | -   | 0.4      | -     | 88        |

#### PCBs in Soil

# Method: ME-(AU)-[ENV]AN420

| QC Sample    | Sample Number |            | Parameter                               | Units | LOR | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------------|-------|-----|----------|-------|-----------|
| SE209082.001 | LB205134.023  |            | Arochlor 1016                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1221                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1232                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1242                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1248                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1254                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1260                           | mg/kg | 0.2 | <0.2     | 0.4   | 136       |
|              |               |            | Arochlor 1262                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              |               |            | Arochlor 1268                           | mg/kg | 0.2 | <0.2     | -     | -         |
|              | _             |            | Total PCBs (Arochlors)                  | mg/kg | 1   | <1       | -     | -         |
|              |               | Surrogates | Tetrachloro-m-xylene (TCMX) (Surrogate) | mg/kg | -   | 0        | -     | 105       |

# Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

|              |               | · · · · · · · · · · · · · · · · · · · |       |     |        |          | ` ' - | •         |
|--------------|---------------|---------------------------------------|-------|-----|--------|----------|-------|-----------|
| QC Sample    | Sample Number | Parameter                             | Units | LOR | Result | Original | Spike | Recovery% |
| SE209064.001 | LB205303.004  | Arsenic, As                           | mg/kg | 1   | 44     | 7        | 50    | 74        |
|              |               | Cadmium, Cd                           | mg/kg | 0.3 | 36     | <0.3     | 50    | 72        |
|              |               | Chromium, Cr                          | mg/kg | 0.5 | 56     | 24       | 50    | 64 ④      |
|              |               | Copper, Cu                            | mg/kg | 0.5 | 78     | 44       | 50    | 67 ④      |
|              |               | Nickel, Ni                            | mg/kg | 0.5 | 46     | 6.2      | 50    | 79        |
|              |               | Lead, Pb                              | mg/kg | 1   | 55     | 19       | 50    | 72        |
|              |               | Zinc, Zn                              | mg/kg | 2   | 68     | 32       | 50    | 71        |

#### TRH (Total Recoverable Hydrocarbons) in Soil

# Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number |             | Parameter                       | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-------------|---------------------------------|-------|-----|--------|----------|-------|-----------|
| SE209082.001 | LB205134.022  |             | TRH C10-C14                     | mg/kg | 20  | 64     | <20      | 40    | 128       |
|              |               |             | TRH C15-C28                     | mg/kg | 45  | <45    | <45      | 40    | 85        |
|              |               |             | TRH C29-C36                     | mg/kg | 45  | <45    | <45      | 40    | 88        |
|              |               |             | TRH C37-C40                     | mg/kg | 100 | <100   | <100     | -     | -         |
|              |               |             | TRH C10-C36 Total               | mg/kg | 110 | <110   | <110     | -     | -         |
|              |               |             | TRH >C10-C40 Total (F bands)    | mg/kg | 210 | <210   | <210     | -     | -         |
|              |               | TRH F Bands | TRH >C10-C16                    | mg/kg | 25  | 68     | <25      | 40    | 135       |
|              |               |             | TRH >C10-C16 - Naphthalene (F2) | mg/kg | 25  | 68     | <25      | -     | -         |
|              |               |             | TRH >C16-C34 (F3)               | mg/kg | 90  | <90    | <90      | 40    | 85        |
|              |               |             | TRH >C34-C40 (F4)               | mg/kg | 120 | <120   | <120     | -     | -         |

#### VOC's in Soil

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE209055.001 | LB205133.004  | Monocyclic | Benzene      | mg/kg | 0.1 | 3.6    | <0.1     | 5     | 73        |
|              |               | Aromatic   | Toluene      | mg/kg | 0.1 | 3.9    | <0.1     | 5     | 79        |
|              |               |            | Ethylbenzene | mg/kg | 0.1 | 4.1    | <0.1     | 5     | 81        |
|              |               |            | m/p-xylene   | mg/kg | 0.2 | 7.9    | <0.2     | 10    | 79        |
|              |               |            | o-xylene     | mg/kg | 0.1 | 4.0    | <0.1     | 5     | 79        |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### VOC's in Soil (continued)

#### Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| SE209055.001 | LB205133.004  | Polycyclic | Naphthalene                       | mg/kg | 0.1 | <0.1   | <0.1     | -     | -         |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.1    | 7.8      | 10    | 81        |
|              |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.2    | 8.4      | 10    | 82        |
|              |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.4    | 9.3      | 10    | 84        |
|              |               | Totals     | Total Xylenes                     | mg/kg | 0.3 | 12     | <0.3     | -     | -         |
|              |               |            | Total BTEX                        | mg/kg | 0.6 | 24     | <0.6     | -     | -         |

# Volatile Petroleum Hydrocarbons in Soil

#### Method: ME-(AU)-[ENV]AN433

| Volatile Petroleum Hydrocarbons in Soil Method: ME-(AU)-[ENV]AN433 |               |            |                                   |       |     |        |          |       |           |
|--------------------------------------------------------------------|---------------|------------|-----------------------------------|-------|-----|--------|----------|-------|-----------|
| QC Sample                                                          | Sample Number |            | Parameter                         | Units | LOR | Result | Original | Spike | Recovery% |
| SE209055.001                                                       | LB205133.004  |            | TRH C6-C10                        | mg/kg | 25  | 62     | <25      | 92.5  | 67        |
|                                                                    |               |            | TRH C6-C9                         | mg/kg | 20  | 56     | <20      | 80    | 70        |
|                                                                    |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | mg/kg | -   | 8.1    | 7.8      | 10    | 81        |
|                                                                    |               |            | d8-toluene (Surrogate)            | mg/kg | -   | 8.2    | 8.4      | 10    | 82        |
|                                                                    |               |            | Bromofluorobenzene (Surrogate)    | mg/kg | -   | 8.4    | 9.3      | -     | 84        |
|                                                                    |               | VPH F      | Benzene (F0)                      | mg/kg | 0.1 | 3.6    | <0.1     | -     | -         |
|                                                                    |               | Bands      | TRH C6-C10 minus BTEX (F1)        | mg/kg | 25  | 39     | <25      | 62.5  | 62        |

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# **MATRIX SPIKE DUPLICATES**

SE209082 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than  $\,200$  it is displayed as  $\,200$ .

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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# FOOTNOTES



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- © LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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5 items



# STATEMENT OF QA/QC **PERFORMANCE**

CLIENT DETAILS LABORATORY DETAILS

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E24724.E02 2 Mandala Parade, Castle Hill SE208846A R0 SGS Reference Project

E24724.E02 21 Jul 2020 Order Number Date Received 28 Jul 2020 Date Reported Samples

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

Soluble Anions (1:5) in Soil by Ion Chromatography

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date Alkalinity in Soil 2 items

> Conductivity and TDS by Calculation - Soil 5 items

> pH in soil (1:5)

Analysis Date 5 items

Conductivity and TDS by Calculation - Soil

Matrix Spike Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES 3 items

SAMPLE SUMMARY

SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

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# **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

| Alkalinity in Soil           |                            |                 |                            |                            |                |                            | Method: ME-(AU | )-[ENV]AN002/AN <sup>2</sup> |
|------------------------------|----------------------------|-----------------|----------------------------|----------------------------|----------------|----------------------------|----------------|------------------------------|
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH3M_2.8-2.9                 | SE208846A.007              | LB204996        | 13 Jul 2020                | 21 Jul 2020                | 20 Jul 2020    | 23 Jul 2020†               | 06 Aug 2020    | 27 Jul 2020                  |
| BH4M_4.9-5.0                 | SE208846A.011              | LB204996        | 14 Jul 2020                | 21 Jul 2020                | 21 Jul 2020    | 23 Jul 2020†               | 06 Aug 2020    | 27 Jul 2020                  |
| 3H2_1.9-2.0                  | SE208846A.015              | LB204996        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 23 Jul 2020                | 06 Aug 2020    | 27 Jul 2020                  |
| 3H2_2.9-3.0                  | SE208846A.016              | LB204996        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 23 Jul 2020                | 06 Aug 2020    | 27 Jul 2020                  |
| BH4M_4.4-4.5                 | SE208846A.017              | LB204996        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 23 Jul 2020                | 06 Aug 2020    | 27 Jul 2020                  |
| onductivity and TDS by C     | alculation - Soil          |                 |                            |                            |                |                            | Method: I      | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH3M_2.8-2.9                 | SE208846A.007              | LB205068        | 13 Jul 2020                | 21 Jul 2020                | 20 Jul 2020    | 24 Jul 2020†               | 20 Jul 2020    | 27 Jul 2020†                 |
| 3H4M_4.9-5.0                 | SE208846A.011              | LB205068        | 14 Jul 2020                | 21 Jul 2020                | 21 Jul 2020    | 24 Jul 2020†               | 21 Jul 2020    | 27 Jul 2020†                 |
| 3H2_1.9-2.0                  | SE208846A.015              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 23 Jul 2020    | 27 Jul 2020†                 |
| 3H2_2.9-3.0                  | SE208846A.016              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 23 Jul 2020    | 27 Jul 2020†                 |
| BH4M_4.4-4.5                 | SE208846A.017              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 23 Jul 2020    | 27 Jul 2020†                 |
| xchangeable Cations and      | Cation Exchange Capacity   | y (CEC/ESP/SAR) |                            |                            |                |                            | Method: I      | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH3M_2.8-2.9                 | SE208846A.007              | LB205095        | 13 Jul 2020                | 21 Jul 2020                | 10 Aug 2020    | 24 Jul 2020                | 10 Aug 2020    | 27 Jul 2020                  |
| 3H4M_4.9-5.0                 | SE208846A.011              | LB205095        | 14 Jul 2020                | 21 Jul 2020                | 11 Aug 2020    | 24 Jul 2020                | 11 Aug 2020    | 27 Jul 2020                  |
| 3H2_1.9-2.0                  | SE208846A.015              | LB205095        | 16 Jul 2020                | 21 Jul 2020                | 13 Aug 2020    | 24 Jul 2020                | 13 Aug 2020    | 27 Jul 2020                  |
| BH2_2.9-3.0                  | SE208846A.016              | LB205095        | 16 Jul 2020                | 21 Jul 2020                | 13 Aug 2020    | 24 Jul 2020                | 13 Aug 2020    | 27 Jul 2020                  |
| 3H4M_4.4-4.5                 | SE208846A.017              | LB205095        | 16 Jul 2020                | 21 Jul 2020                | 13 Aug 2020    | 24 Jul 2020                | 13 Aug 2020    | 27 Jul 2020                  |
| oisture Content              |                            |                 |                            |                            |                |                            | Method: I      | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH2_1.9-2.0                  | SE208846A.015              | LB205093        | 16 Jul 2020                | 21 Jul 2020                | 30 Jul 2020    | 24 Jul 2020                | 29 Jul 2020    | 27 Jul 2020                  |
| H2_2.9-3.0                   | SE208846A.016              | LB205093        | 16 Jul 2020                | 21 Jul 2020                | 30 Jul 2020    | 24 Jul 2020                | 29 Jul 2020    | 27 Jul 2020                  |
| H4M_4.4-4.5                  | SE208846A.017              | LB205093        | 16 Jul 2020                | 21 Jul 2020                | 30 Jul 2020    | 24 Jul 2020                | 29 Jul 2020    | 27 Jul 2020                  |
| H in soil (1:5)              |                            |                 |                            |                            |                |                            | Method: I      | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH3M_2.8-2.9                 | SE208846A.007              | LB205068        | 13 Jul 2020                | 21 Jul 2020                | 20 Jul 2020    | 24 Jul 2020†               | 25 Jul 2020    | 24 Jul 2020                  |
| BH4M_4.9-5.0                 | SE208846A.011              | LB205068        | 14 Jul 2020                | 21 Jul 2020                | 21 Jul 2020    | 24 Jul 2020†               | 25 Jul 2020    | 24 Jul 2020                  |
| 3H2_1.9-2.0                  | SE208846A.015              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 25 Jul 2020    | 24 Jul 2020                  |
| BH2_2.9-3.0                  | SE208846A.016              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 25 Jul 2020    | 24 Jul 2020                  |
| 3H4M_4.4-4.5                 | SE208846A.017              | LB205068        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 25 Jul 2020    | 24 Jul 2020                  |
| oil Texture (AS4419)         |                            |                 |                            |                            |                |                            | Method: I      | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| BH3M_2.8-2.9                 | SE208846A.007              | LB205036        | 13 Jul 2020                | 21 Jul 2020                | 09 Jan 2021    | 23 Jul 2020                | 09 Jan 2021    | 28 Jul 2020                  |
| 3H4M_4.9-5.0                 | SE208846A.011              | LB205036        | 14 Jul 2020                | 21 Jul 2020                | 10 Jan 2021    | 23 Jul 2020                | 10 Jan 2021    | 28 Jul 2020                  |
| BH2_1.9-2.0                  | SE208846A.015              | LB205036        | 16 Jul 2020                | 21 Jul 2020                | 12 Jan 2021    | 23 Jul 2020                | 12 Jan 2021    | 28 Jul 2020                  |
| BH2_2.9-3.0                  | SE208846A.016              | LB205036        | 16 Jul 2020                | 21 Jul 2020                | 12 Jan 2021    | 23 Jul 2020                | 12 Jan 2021    | 28 Jul 2020                  |
| BH4M 4.4-4.5                 | SE208846A.017              | LB205036        | 16 Jul 2020                | 21 Jul 2020                | 12 Jan 2021    | 23 Jul 2020                | 12 Jan 2021    | 28 Jul 2020                  |
| oluble Anions (1:5) in Soil  |                            |                 |                            |                            |                |                            |                | ME-(AU)-[ENV]AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| 3H3M_2.8-2.9                 | SE208846A.007              | LB205060        | 13 Jul 2020                | 21 Jul 2020                | 20 Jul 2020    | 24 Jul 2020†               | 21 Aug 2020    | 27 Jul 2020                  |
| 3H4M_4.9-5.0                 | SE208846A.011              | LB205060        | 14 Jul 2020                | 21 Jul 2020                | 21 Jul 2020    | 24 Jul 2020†               | 21 Aug 2020    | 27 Jul 2020                  |
| BH2_1.9-2.0                  | SE208846A.015              | LB205060        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 21 Aug 2020    | 27 Jul 2020                  |
| BH2_2.9-3.0                  | SE208846A.016              | LB205060        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 21 Aug 2020    | 27 Jul 2020                  |
| 3H4M_4.4-4.5                 | SE208846A.017              | LB205060        | 16 Jul 2020                | 21 Jul 2020                | 23 Jul 2020    | 24 Jul 2020†               | 21 Aug 2020    | 27 Jul 2020                  |
|                              | s in Soil/Waste Solids/Mat |                 |                            |                            |                |                            |                | )-[ENV]AN040/AN              |
| Sample Name                  | Sample No.                 | QC Ref          | Sampled                    | Received                   | Extraction Due | Extracted                  | Analysis Due   | Analysed                     |
| 3H3M_2.8-2.9                 | SE208846A.007              | LB205033        | 13 Jul 2020                | 21 Jul 2020                | 09 Jan 2021    | 23 Jul 2020                | 09 Jan 2021    | 28 Jul 2020                  |
| 3H3M_2.8-2.9<br>3H4M_4.9-5.0 | SE208846A.007              | LB205033        | 13 Jul 2020<br>14 Jul 2020 | 21 Jul 2020<br>21 Jul 2020 | 10 Jan 2021    | 23 Jul 2020<br>23 Jul 2020 | 10 Jan 2021    | 28 Jul 2020<br>28 Jul 2020   |
| BH2_1.9-2.0                  | SE208846A.015              | LB205033        | 16 Jul 2020                | 21 Jul 2020                | 12 Jan 2021    | 23 Jul 2020                | 12 Jan 2021    | 28 Jul 2020                  |
| BH2_2.9-3.0                  | SE208846A.016              | LB205033        | 16 Jul 2020                | 21 Jul 2020                | 12 Jan 2021    | 23 Jul 2020                | 12 Jan 2021    | 28 Jul 2020                  |
| DTZ Z.9-J.U                  |                            |                 |                            |                            |                |                            |                |                              |

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# **SURROGATES**

SE208846A R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

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# **METHOD BLANKS**

SE208846A R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| Sample Number | Parameter                          | Units | LOR | Result |
|---------------|------------------------------------|-------|-----|--------|
| LB204996.001  | Total Alkalinity as CaCO3 in Soil* | ma/ka | 25  | <25    |

#### Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter                                      | Units | LOR | Result |
|---------------|------------------------------------------------|-------|-----|--------|
| LB205068.001  | Conductivity of Extract (1:5 dry sample basis) | uS/cm | 1   | 0      |

#### Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

| Sample Number | Parameter                  | Units | LOR | Result |
|---------------|----------------------------|-------|-----|--------|
| LB205095.001  | Exchangeable Sodium, Na    | mg/kg | 2   | 0      |
|               | Exchangeable Potassium, K  | mg/kg | 2   | 0      |
|               | Exchangeable Calcium, Ca   | mg/kg | 2   | 0      |
|               | Exchangeable Magnesium, Mg | mg/kg | 2   | 0      |

#### Soluble Anions (1:5) in Soil by Ion Chromatography

Method: ME-(AU)-[ENV]AN245

| Sample Number | Parameter | Units | LOR  | Result |
|---------------|-----------|-------|------|--------|
| LB205060.001  | Chloride  | mg/kg | 0.25 | <0.25  |
|               | Sulfate   | mg/kg | 5    | <5.0   |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

# Method: ME-(AU)-[ENV]AN040/AN320

| Result | LOR | Units | Parameter     | Sample Number |
|--------|-----|-------|---------------|---------------|
| <5     | 5   | mg/kg | Calcium, Ca   | LB205033.001  |
| <10    | 10  | mg/kg | Potassium, K  |               |
| <5     | 5   | mg/kg | Magnesium, Mg |               |
| <1     | 1   | mg/kg | Manganese, Mn |               |
| <5     | 5   | mg/kg | Sodium, Na    |               |
| _      | 5   |       |               |               |

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SE208846A R0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Alkalinity in Soil

#### Method: ME-(AU)-[ENV]AN002/AN135

| Original      | Duplicate    | Parameter                          | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|---------------|--------------|------------------------------------|-------|-----|----------|-----------|------------|-------|
| SE208846A.017 | LB204996.008 | Total Alkalinity as CaCO3 in Soil* | mg/kg | 25  | 44       | 40        | 75         | 10    |

#### Conductivity and TDS by Calculation - Soil

#### Method: ME-(AU)-[ENV]AN106

| Original     | Duplicate    | Parameter                                      | Units | LOR | Original | Duplicate     | Criteria % | RPD % |
|--------------|--------------|------------------------------------------------|-------|-----|----------|---------------|------------|-------|
| SE208978.002 | LB205068.011 | Conductivity of Extract (1:5 dry sample basis) | μS/cm | 1   | 24       | 23.6936959208 | 38         | 2     |

#### Moisture Content

#### Method: ME-(AU)-[ENV]AN002

| Original     | Duplicate    | Parameter  | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------|-------|-----|----------|-----------|------------|-------|
| SE208978.002 | LB205093.011 | % Moisture | %w/w  | 1   | 12.6     | 12.9      | 38         | 2     |

#### pH in soil (1:5)

#### Method: ME-(AU)-[ENV]AN101

| Original     | Duplicate    | Parameter | Units    | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|----------|-----|----------|-----------|------------|-------|
| SE208978.002 | LB205068.011 | рН        | pH Units | 0.1 | 6.6      | 6.6       | 32         | 0     |

# Soluble Anions (1:5) in Soil by Ion Chromatography

#### Method: ME-(AU)-[ENV]AN245

| Original     | Duplicate    | Parameter | Units | LOR  | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|------|----------|-----------|------------|-------|
| SE208978.002 | LB205060.015 | Chloride  | mg/kg | 0.25 | 5.0      | 5.0       | 35         | 1     |
|              |              | Sulfate   | mg/kg | 5    | 14       | 14        | 66         | 0     |

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# LABORATORY CONTROL SAMPLES

SE208846A R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

| Alkalinity in Soil | Method: ME-(AU)-TENVIAN002/AN135      |
|--------------------|---------------------------------------|
| raidaling in con   | moulou. ME (10) [E117] attocks at 100 |

| Sample Number | Parameter                          | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------------------------------|-------|-----|--------|----------|------------|------------|
| LB204996.002  | Total Alkalinity as CaCO3 in Soil* | mg/kg | 25  | 300    | 297.5    | 80 - 120   | 99         |

#### Conductivity and TDS by Calculation - Soil

#### Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter                                      | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------------------------------------------|-------|-----|--------|----------|------------|------------|
| LB205068.002  | Conductivity of Extract (1:5 dry sample basis) | μS/cm | 1   | NA     | 303      | 85 - 115   | 103        |

#### Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

#### Method: ME-(AU)-[ENV]AN122

| Sample Number | Parameter                  | Units    | LOR  | Result | Expected | Criteria %      | Recovery %       |
|---------------|----------------------------|----------|------|--------|----------|-----------------|------------------|
| LB205095.002  | Exchangeable Sodium, Na    | meq/100g | 0.01 | 0.20   | 0.194    | 80 - 120        | 102              |
|               | Exchangeable Potassium, K  | meq/100g | 0.01 | 0.62   | 0.63     | 80 - 120        | 98               |
|               | Exchangeable Calcium, Ca   | meq/100g | 0.01 | 6.6    | 6.3      | 80 - 120        | 105              |
|               | Exchangeable Magnesium, Mg | meq/100g | 0.02 | 1.1    | 1.11     | 80 - 120        | 101              |
|               |                            |          |      |        |          | 4-45-J- 14T (A) | I D ITTAD GANGOS |

#### pH in soil (1:5)

| Sample Number | Parameter | Units    | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|----------|-----|--------|----------|------------|------------|
| LB205068.003  | pH        | pH Units | 0.1 | 7.4    | 7.415    | 98 - 102   | 99         |

#### Soluble Anions (1:5) in Soil by Ion Chromatography

#### Method: ME-(AU)-[ENV]AN245

| Sample Number | Parameter | Units | LOR  | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|-------|------|--------|----------|------------|------------|
| LB205060.002  | Chloride  | mg/kg | 0.25 | 95     | 100      | 70 - 130   | 95         |
|               | Sulfate   | mg/kg | 5    | 94     | 100      | 70 - 130   | 94         |

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| Sample Number | Parameter     | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|---------------|-------|-----|--------|----------|------------|------------|
| LB205033.002  | Calcium, Ca   | mg/kg | 5   | 11000  | 10367    | 80 - 120   | 109        |
|               | Potassium, K  | mg/kg | 10  | 1500   | 1348     | 80 - 120   | 111        |
|               | Magnesium, Mg | mg/kg | 5   | 11000  | 10422    | 80 - 120   | 104        |
|               | Manganese, Mn | mg/kg | 1   | 730    | 660      | 80 - 120   | 111        |
|               | Sodium, Na    | mg/kg | 5   | 880    | 756      | 80 - 120   | 116        |

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Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

#### Method: ME-(AU)-[ENV]AN040/AN320

| QC Sample    | Sample Number | Parameter     | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|---------------|-------|-----|--------|----------|-------|-----------|
| SE208846A.00 | LB205033.004  | Calcium, Ca   | mg/kg | 5   | 3000   | 3400     | 50    | -881 ④    |
| 7            |               | Potassium, K  | mg/kg | 10  | 820    | 240      | 500   | 115       |
|              |               | Magnesium, Mg | mg/kg | 5   | 620    | 650      | 50    | -68 ④     |
|              |               | Manganese, Mn | mg/kg | 1   | 98     | 47       | 50    | 101       |
|              |               | Sodium, Na    | mg/kg | 5   | 250    | 130      | 50    | 225 ④     |

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# **MATRIX SPIKE DUPLICATES**

SE208846A R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than  $\,200$  it is displayed as  $\,200$ .

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- © LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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## STATEMENT OF QA/QC **PERFORMANCE**

CLIENT DETAILS LABORATORY DETAILS

Li Wei **Huong Crawford** Contact Manager

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li.wei@eiaustralia.com.au Email au.environmental.sydney@sqs.com Email

E24724.E02 2 Mandala Parade, Castle Hill SE209379 R0 SGS Reference Project E24724.E02 30 Jul 2020 Order Number Date Received

06 Aug 2020 Date Reported Samples

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled Yes Complete documentation received Sample container provider SGS Sample cooling method Samples received in correct containers Yes Sample counts by matrix 30/7/2020 Type of documentation received Date documentation received Samples received in good order Yes Samples received without headspace Sample temperature upon receipt 5.4°C Sufficient sample for analysis Turnaround time requested Standard

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SGS Australia Pty Ltd ABN 44 000 964 278

6/8/2020

Environment, Health and Safety

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Australia

f +61 2 8594 0499

Ice Bricks

7 Water

COC

Yes

Yes



GWTS 1

SE209379.007

LB205796

29 Jul 2020

## **HOLDING TIME SUMMARY**

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

|                           | <u> </u>                     |                      |                            |                            |                               |                            |                                       |                            |
|---------------------------|------------------------------|----------------------|----------------------------|----------------------------|-------------------------------|----------------------------|---------------------------------------|----------------------------|
| Conductivity and TDS by   | Calculation - Water          |                      |                            |                            |                               |                            | Method:                               | ME-(AU)-[ENV]AN10          |
| Sample Name               | Sample No.                   | QC Ref               | Sampled                    | Received                   | Extraction Due                | Extracted                  | Analysis Due                          | Analysed                   |
| ВН3М-а                    | SE209379.001                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 30 Jul 2020                | 26 Aug 2020                           | 30 Jul 2020                |
| BH4M-a                    | SE209379.002                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 30 Jul 2020                | 26 Aug 2020                           | 30 Jul 2020                |
| BH5M                      | SE209379.003                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 30 Jul 2020                | 26 Aug 2020                           | 30 Jul 2020                |
| Mercury (dissolved) in Wa | ater                         |                      |                            |                            |                               |                            | Method: ME-(AU)-[ENV                  | JAN311(Perth)/AN3          |
| Sample Name               | Sample No.                   | QC Ref               | Sampled                    | Received                   | Extraction Due                | Extracted                  | Analysis Due                          | Analysed                   |
| ВНЗМ-а                    | SE209379.001                 | LB205681             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 31 Jul 2020                | 26 Aug 2020                           | 04 Aug 2020                |
| ВН4М-а                    | SE209379.002                 | LB205681             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 31 Jul 2020                | 26 Aug 2020                           | 04 Aug 2020                |
| BH5M                      | SE209379.003                 | LB205681             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 31 Jul 2020                | 26 Aug 2020                           | 04 Aug 2020                |
| GWQD 1                    | SE209379.004                 | LB205681             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 31 Jul 2020                | 26 Aug 2020                           | 04 Aug 2020                |
| GWQR 1                    | SE209379.005                 | LB205681             | 29 Jul 2020                | 30 Jul 2020                | 26 Aug 2020                   | 31 Jul 2020                | 26 Aug 2020                           | 04 Aug 2020                |
| AH (Polynuclear Aroma     | tic Hydrocarbons) in Water   |                      |                            |                            |                               |                            | Method:                               | ME-(AU)-[ENV]AN4           |
| Sample Name               | Sample No.                   | QC Ref               | Sampled                    | Received                   | Extraction Due                | Extracted                  | Analysis Due                          | Analysed                   |
| BH3M-a                    | SE209379.001                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 06 Aug 2020                |
| BH4M-a                    | SE209379.002                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 06 Aug 2020                |
| BH5M                      | SE209379.003                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 06 Aug 2020                |
| GWQD 1                    | SE209379.004                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 06 Aug 2020                |
| GWQR 1                    | SE209379.005                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 06 Aug 2020                |
| H in water                |                              |                      |                            |                            |                               |                            | Method:                               | ME-(AU)-[ENV]AN1           |
| Sample Name               | Sample No.                   | QC Ref               | Sampled                    | Received                   | Extraction Due                | Extracted                  | Analysis Due                          | Analysed                   |
| ВНЗМ-а                    | SE209379.001                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 30 Jul 2020                   | 30 Jul 2020                | 30 Jul 2020                           | 30 Jul 2020                |
| BH4M-a                    | SE209379.002                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 30 Jul 2020                   | 30 Jul 2020                | 30 Jul 2020                           | 30 Jul 2020                |
| BH5M                      | SE209379.003                 | LB205652             | 29 Jul 2020                | 30 Jul 2020                | 30 Jul 2020                   | 30 Jul 2020                | 30 Jul 2020                           | 30 Jul 2020                |
| race Metals (Dissolved)   |                              |                      |                            |                            |                               |                            |                                       | ME-(AU)-[ENV]AN31          |
| Sample Name               | Sample No.                   | QC Ref               | Sampled                    | Received                   | Extraction Due                | Extracted                  | Analysis Due                          |                            |
| запіріе мапіе<br>ВНЗМ-а   | SE209379.001                 | LB205820             | 29 Jul 2020                | 30 Jul 2020                |                               |                            | •                                     | Analysed                   |
| BH4M-a                    | SE209379.001<br>SE209379.002 | LB205820             | 29 Jul 2020<br>29 Jul 2020 | 30 Jul 2020                | 25 Jan 2021<br>25 Jan 2021    | 03 Aug 2020<br>03 Aug 2020 | 25 Jan 2021<br>25 Jan 2021            | 04 Aug 2020<br>04 Aug 2020 |
| BH5M                      | SE209379.002<br>SE209379.003 | LB205820             | 29 Jul 2020                | 30 Jul 2020                | 25 Jan 2021                   | 03 Aug 2020                | 25 Jan 2021                           | 04 Aug 2020                |
| GWQD 1                    | SE209379.003                 | LB205820             | 29 Jul 2020                | 30 Jul 2020                | 25 Jan 2021                   | 03 Aug 2020                | 25 Jan 2021                           | 04 Aug 2020                |
| GWQR 1                    | SE209379.005                 | LB205820             | 29 Jul 2020                | 30 Jul 2020                | 25 Jan 2021                   | 03 Aug 2020                | 25 Jan 2021                           | 04 Aug 2020                |
| RH (Total Recoverable     |                              |                      |                            | 5112:212                   |                               | 551129 2525                |                                       | ME-(AU)-[ENV]AN4           |
|                           |                              | OC Bef               | Compled                    | Dessived                   | Everyotion Due                | Extracted                  |                                       |                            |
| Sample Name               | Sample No.<br>SE209379.001   | QC Ref<br>LB205665   | Sampled<br>29 Jul 2020     | Received<br>30 Jul 2020    | Extraction Due<br>05 Aug 2020 | Extracted<br>31 Jul 2020   | Analysis Due<br>09 Sep 2020           | Analysed                   |
| BH3M-a<br>BH4M-a          | SE209379.001                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | -                             |                            | · · · · · · · · · · · · · · · · · · · | 05 Aug 2020                |
| BH5M                      | SE209379.002<br>SE209379.003 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020<br>05 Aug 2020    | 31 Jul 2020<br>31 Jul 2020 | 09 Sep 2020<br>09 Sep 2020            | 05 Aug 2020<br>05 Aug 2020 |
| GWQD 1                    | SE209379.003                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 05 Aug 2020                |
| GWQR 1                    | SE209379.005                 | LB205665             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 31 Jul 2020                | 09 Sep 2020                           | 05 Aug 2020                |
| OCs in Water              | 02200010.000                 | EBEGGGG              | 20 001 2020                | 00 001 2020                | 00 / lag 2020                 | 01 001 2020                |                                       | ME-(AU)-[ENV]AN4           |
|                           | Cample No.                   | OC Bef               | Campled                    | Dessived                   | Everyotion Due                | Extracted                  |                                       |                            |
| Sample Name               | Sample No.                   | QC Ref               | Sampled<br>29 Jul 2020     | Received                   | Extraction Due                | Extracted                  | Analysis Due                          | Analysed                   |
| 3H3M-a<br>3H4M-a          | SE209379.001<br>SE209379.002 | LB205796<br>LB205796 | 29 Jul 2020<br>29 Jul 2020 | 30 Jul 2020<br>30 Jul 2020 | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020<br>03 Aug 2020 | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020                |
| BH5M                      |                              | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020                |                                       | 05 Aug 2020<br>05 Aug 2020 |
| GWQD 1                    | SE209379.003<br>SE209379.004 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 03 Aug 2020                | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020                |
| GWQR 1                    | SE209379.004<br>SE209379.005 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 03 Aug 2020                | 12 Sep 2020                           | 05 Aug 2020                |
| GWTB 1                    | SE209379.006                 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 03 Aug 2020                | 12 Sep 2020                           | 05 Aug 2020                |
| GWTS 1                    | SE209379.000                 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 03 Aug 2020                | 12 Sep 2020                           | 05 Aug 2020                |
| olatile Petroleum Hydro   |                              | 22200100             | 20 001 2020                | 55 541 2020                | 55 / lag 2020                 | 55 / 10g 2020              |                                       | ME-(AU)-[ENV]AN4           |
| <u> </u>                  |                              | OC Bot               | Sampled                    | Received                   | Extraction Due                | Extracted                  |                                       |                            |
| Sample Name<br>3H3M-a     | Sample No.<br>SE209379.001   | QC Ref<br>LB205796   | 29 Jul 2020                | 30 Jul 2020                | Extraction Due                |                            | Analysis Due<br>12 Sep 2020           | Analysed                   |
| внзм-а<br>ВН4М-а          | SE209379.001<br>SE209379.002 | LB205796<br>LB205796 | 29 Jul 2020<br>29 Jul 2020 | 30 Jul 2020<br>30 Jul 2020 | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020<br>03 Aug 2020 | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020<br>05 Aug 2020 |
| вн4м-а<br>ВН5М            | SE209379.002<br>SE209379.003 | LB205796             | 29 Jul 2020<br>29 Jul 2020 | 30 Jul 2020<br>30 Jul 2020 | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020<br>03 Aug 2020 | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020<br>05 Aug 2020 |
| GWQD 1                    | SE209379.003<br>SE209379.004 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020                | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020<br>05 Aug 2020 |
| GWQD 1<br>GWQR 1          | SE209379.004<br>SE209379.005 | LB205796             | 29 Jul 2020<br>29 Jul 2020 | 30 Jul 2020                | 05 Aug 2020<br>05 Aug 2020    | 03 Aug 2020<br>03 Aug 2020 | 12 Sep 2020<br>12 Sep 2020            | 05 Aug 2020<br>05 Aug 2020 |
| GWTB 1                    | SE209379.005                 | LB205796             | 29 Jul 2020                | 30 Jul 2020                | 05 Aug 2020                   | 03 Aug 2020                | 12 Sep 2020                           | 06 Aug 2020                |
|                           |                              |                      |                            |                            | 9                             |                            |                                       |                            |

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30 Jul 2020

05 Aug 2020

03 Aug 2020

12 Sep 2020

06 Aug 2020





Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

#### Method: ME-(AU)-[ENV]AN420

| Parameter                    | Sample Name | Sample Number | Units | Criteria  | Recovery % |
|------------------------------|-------------|---------------|-------|-----------|------------|
| 2-fluorobiphenyl (Surrogate) | BH3M-a      | SE209379.001  | %     | 40 - 130% | 76         |
|                              | BH4M-a      | SE209379.002  | %     | 40 - 130% | 76         |
|                              | BH5M        | SE209379.003  | %     | 40 - 130% | 64         |
| d14-p-terphenyl (Surrogate)  | BH3M-a      | SE209379.001  | %     | 40 - 130% | 106        |
|                              | BH4M-a      | SE209379.002  | %     | 40 - 130% | 108        |
|                              | BH5M        | SE209379.003  | %     | 40 - 130% | 98         |
| d5-nitrobenzene (Surrogate)  | BH3M-a      | SE209379.001  | %     | 40 - 130% | 58         |
|                              | BH4M-a      | SE209379.002  | %     | 40 - 130% | 64         |
|                              | BH5M        | SE209379.003  | %     | 40 - 130% | 54         |

#### VOCs in Water

## Method: ME-(AU)-[ENV]AN433

| Tood III Traidi                   |             |               |       |           | = (10) [=111 p a1100 |
|-----------------------------------|-------------|---------------|-------|-----------|----------------------|
| Parameter                         | Sample Name | Sample Number | Units | Criteria  | Recovery %           |
| Bromofluorobenzene (Surrogate)    | BH3M-a      | SE209379.001  | %     | 40 - 130% | 101                  |
|                                   | ВН4М-а      | SE209379.002  | %     | 40 - 130% | 102                  |
|                                   | BH5M        | SE209379.003  | %     | 40 - 130% | 102                  |
|                                   | GWQD 1      | SE209379.004  | %     | 40 - 130% | 101                  |
|                                   | GWQR 1      | SE209379.005  | %     | 40 - 130% | 100                  |
|                                   | GWTB 1      | SE209379.006  | %     | 40 - 130% | 99                   |
|                                   | GWTS 1      | SE209379.007  | %     | 40 - 130% | 97                   |
| d4-1,2-dichloroethane (Surrogate) | BH3M-a      | SE209379.001  | %     | 40 - 130% | 101                  |
|                                   | BH4M-a      | SE209379.002  | %     | 40 - 130% | 101                  |
|                                   | BH5M        | SE209379.003  | %     | 40 - 130% | 102                  |
|                                   | GWQD 1      | SE209379.004  | %     | 40 - 130% | 102                  |
|                                   | GWQR 1      | SE209379.005  | %     | 40 - 130% | 104                  |
|                                   | GWTB 1      | SE209379.006  | %     | 40 - 130% | 101                  |
|                                   | GWTS 1      | SE209379.007  | %     | 40 - 130% | 101                  |
| d8-toluene (Surrogate)            | ВН3М-а      | SE209379.001  | %     | 40 - 130% | 98                   |
|                                   | BH4M-a      | SE209379.002  | %     | 40 - 130% | 100                  |
|                                   | BH5M        | SE209379.003  | %     | 40 - 130% | 99                   |
|                                   | GWQD 1      | SE209379.004  | %     | 40 - 130% | 99                   |
|                                   | GWQR 1      | SE209379.005  | %     | 40 - 130% | 103                  |
|                                   | GWTB 1      | SE209379.006  | %     | 40 - 130% | 98                   |
|                                   | GWTS 1      | SE209379.007  | %     | 40 - 130% | 98                   |
|                                   |             |               |       |           |                      |

#### Volatile Petroleum Hydrocarbons in Water

#### Method: ME-(AU)-[ENV]AN433

| Parameter                         | Sample Name | Sample Number | Units | Criteria  | Recovery % |
|-----------------------------------|-------------|---------------|-------|-----------|------------|
| Bromofluorobenzene (Surrogate)    | ВН3М-а      | SE209379.001  | %     | 40 - 130% | 101        |
|                                   | BH4M-a      | SE209379.002  | %     | 40 - 130% | 102        |
|                                   | BH5M        | SE209379.003  | %     | 40 - 130% | 102        |
|                                   | GWQD 1      | SE209379.004  | %     | 40 - 130% | 101        |
|                                   | GWQR 1      | SE209379.005  | %     | 40 - 130% | 100        |
| d4-1,2-dichloroethane (Surrogate) | ВН3М-а      | SE209379.001  | %     | 60 - 130% | 101        |
|                                   | BH4M-a      | SE209379.002  | %     | 60 - 130% | 101        |
|                                   | BH5M        | SE209379.003  | %     | 60 - 130% | 102        |
|                                   | GWQD 1      | SE209379.004  | %     | 60 - 130% | 102        |
|                                   | GWQR 1      | SE209379.005  | %     | 60 - 130% | 104        |
| d8-toluene (Surrogate)            | ВН3М-а      | SE209379.001  | %     | 40 - 130% | 98         |
|                                   | BH4M-a      | SE209379.002  | %     | 40 - 130% | 100        |
|                                   | BH5M        | SE209379.003  | %     | 40 - 130% | 99         |
|                                   | GWQD 1      | SE209379.004  | %     | 40 - 130% | 99         |
|                                   | GWQR 1      | SE209379.005  | %     | 40 - 130% | 103        |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

### Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter           | Units | LOR | Result |
|---------------|---------------------|-------|-----|--------|
| LB205652.001  | Conductivity @ 25 C | μS/cm | 2   | <2     |

### Mercury (dissolved) in Water

### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Sample Number | Parameter | Units | LOR    | Result  |
|---------------|-----------|-------|--------|---------|
| LB205681.001  | Mercury   | mg/L  | 0.0001 | <0.0001 |

## PAH (Polynuclear Aromatic Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result |
|---------------|------------------------------|-------|-----|--------|
| LB205665.001  | Naphthalene                  | μg/L  | 0.1 | <0.1   |
|               | 2-methylnaphthalene          | μg/L  | 0.1 | <0.1   |
|               | 1-methylnaphthalene          | μg/L  | 0.1 | <0.1   |
|               | Acenaphthylene               | μg/L  | 0.1 | <0.1   |
|               | Acenaphthene                 | μg/L  | 0.1 | <0.1   |
|               | Fluorene                     | μg/L  | 0.1 | <0.1   |
|               | Phenanthrene                 | μg/L  | 0.1 | <0.1   |
|               | Anthracene                   | μg/L  | 0.1 | <0.1   |
|               | Fluoranthene                 | μg/L  | 0.1 | <0.1   |
|               | Pyrene                       | μg/L  | 0.1 | <0.1   |
|               | Benzo(a)anthracene           | μg/L  | 0.1 | <0.1   |
|               | Chrysene                     | μg/L  | 0.1 | <0.1   |
|               | Benzo(a)pyrene               | μg/L  | 0.1 | <0.1   |
|               | Indeno(1,2,3-cd)pyrene       | μg/L  | 0.1 | <0.1   |
|               | Dibenzo(ah)anthracene        | μg/L  | 0.1 | <0.1   |
|               | Benzo(ghi)perylene           | μg/L  | 0.1 | <0.1   |
| Surrogates    | d5-nitrobenzene (Surrogate)  | %     | -   | 66     |
|               | 2-fluorobiphenyl (Surrogate) | %     | -   | 74     |
|               | d14-p-terphenyl (Surrogate)  | %     | -   | 98     |

## Trace Metals (Dissolved) in Water by ICPMS

## Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB205820.001  | Arsenic, As  | μg/L  | 1   | <1     |
|               | Cadmium, Cd  | μg/L  | 0.1 | <0.1   |
|               | Chromium, Cr | μg/L  | 1   | <1     |
|               | Copper, Cu   | μg/L  | 1   | <1     |
|               | Lead, Pb     | μg/L  | 1   | <1     |
|               | Nickel, Ni   | μg/L  | 1   | <1     |
|               | Zinc, Zn     | μg/L  | 5   | <5     |

## TRH (Total Recoverable Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN403

| Sample Number | Parameter   | Units | LOR | Result |
|---------------|-------------|-------|-----|--------|
| LB205665.001  | TRH C10-C14 | μg/L  | 50  | <50    |
|               | TRH C15-C28 | μg/L  | 200 | <200   |
|               | TRH C29-C36 | μg/L  | 200 | <200   |
|               | TRH C37-C40 | μg/L  | 200 | <200   |

#### **VOCs in Water**

## Method: ME-(AU)-[ENV]AN433

| Sample Number |                        | Parameter                        | Units | LOR | Result |
|---------------|------------------------|----------------------------------|-------|-----|--------|
| LB205796.001  | Fumigants              | 2,2-dichloropropane              | μg/L  | 0.5 | <0.5   |
|               |                        | 1,2-dichloropropane              | μg/L  | 0.5 | <0.5   |
|               |                        | cis-1,3-dichloropropene          | μg/L  | 0.5 | <0.5   |
|               |                        | trans-1,3-dichloropropene        | μg/L  | 0.5 | <0.5   |
|               |                        | 1,2-dibromoethane (EDB)          | μg/L  | 0.5 | <0.5   |
|               | Halogenated Aliphatics | Dichlorodifluoromethane (CFC-12) | μg/L  | 5   | <5     |
|               |                        | Chloromethane                    | μg/L  | 5   | <5     |
|               |                        | Vinyl chloride (Chloroethene)    | μg/L  | 0.3 | <0.3   |
|               |                        | Bromomethane                     | μg/L  | 10  | <10    |
|               |                        | Chloroethane                     | μg/L  | 5   | <5     |
|               |                        | Trichlorofluoromethane           | μg/L  | 1   | <1     |
|               |                        | lodomethane                      | μg/L  | 5   | <5     |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

### VOCs in Water (continued)

## Method: ME-(AU)-[ENV]AN433

| 14.98   14.98   14.98   1.1 dishiboscheric   19.5   1.0 dishiboscheric   19.5   1.   | Sample Number |                        | Parameter                            | Units | LOR | Result |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------|--------------------------------------|-------|-----|--------|
| April or Schreicher   1971   2   2   2   2   2   2   2   2   2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LB205796.001  | Halogenated Aliphatics | 1,1-dichloroethene                   | μg/L  | 0.5 | <0.5   |
| 14 - 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        | Dichloromethane (Methylene chloride) | μg/L  | 5   | <5     |
| 1.5.45/controllers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                        | Allyl chloride                       | μg/L  | 2   | <2     |
| 1.4.ed/concordance   1924   0.5   0.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |                        | trans-1,2-dichloroethene             |       | 0.5 | <0.5   |
| 12 destrocembers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                        | 1,1-dichloroethane                   |       | 0.5 | <0.5   |
| Branchisementheme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                        |                                      |       |     |        |
| 1.5 definitionations   1.5 definitionations    1.1 definitionations    1.1 definitionations    1.1 definitionations    1.2 definitionations    1.2 definitionations    1.3 definitionations    1.3 definitionations    1.4 definitionations    1.5 definitionations    1.5 definitionationations    1.5 definiti |               |                        | ·                                    |       |     |        |
| 1.1.1 strothosenthree   1931                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                        |                                      |       |     |        |
| 1.1-decinocopregne   Cathon interacrosis   1931   0.5   4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                        |                                      |       |     |        |
| Carbon tetraniforide         galt.         6.5         ~ 0.5           Demonestance         galt.         6.5         ~ 0.5           1,2 effortocetheme         galt.         0.5         ~ 0.5           1,3 debisorospene         galt.         0.6         ~ 0.5           1,5 debisorospene         galt.         0.6         ~ 0.5           1,1,1 debisorospene         galt.         0.6         ~ 0.5           1,1,1 debisorospene         galt.         1.6         ~ 0.5           1,1,2 debisorospene         galt.         1.6         ~ 0.5           1,2 debisorospene         galt.         0.6         ~ 0.5           1,2 debisorospene         galt.         0.6         ~ 0.5           1,2 debisorospene         galt.         0.6         ~                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                        |                                      | ·     |     |        |
| Discontinumental   Section   Secti |               |                        |                                      |       |     |        |
| Tristrocenhare (Tristrocenhare TCE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                        |                                      |       |     |        |
| 1.1.2-infolioroperaire   spil. 0.5   4.0.5     1.3.4-informeroperaire   spil. 0.5   4.0.5     1.3.4-informeroperaire   spil. 0.5   4.0.5     3.1.4-informeroperaire   spil. 0.5   4.0.5     3.1.4-infolioroperaire   spil. 0.5   4.0.5     3.2infolioroperaire   spil. 0.5   4.0.5     3.2infolioroperaire   spil. 0.5   4.0.5     3.2infolioroperaire   spil. 0.5   4.0.5     3.2infolioroperaire   spil. 0.5   4.0.5     4.0infolioroperaire   spil. 0.5   4.0.5     4.0-infolioroperaire   spil. 0.5   4.                                   |               |                        |                                      |       |     |        |
| 1.0 de/morropropee   ур. 0.5   4.05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                        |                                      | ·     |     |        |
| Tetrachterorathuran (Petrolitronary June PCE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                      |       |     |        |
| 1.1.1. Feterachrochemen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                        |                                      |       |     |        |
| 1.1.2 zeticachtono-2 suctions   spit.   1   stit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |                        |                                      |       |     |        |
| 1.1.2.2.literiochrontwine   spi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                        |                                      |       |     |        |
| 12.3 Variativopropare                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |                        | cis-1,4-dichloro-2-butene            |       |     |        |
| trains 1.4 dischibro-2-bulane         ypf.         1         <1           1.2 discromo-3-distorprographe         ypf.         0.5         <4.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                        | 1,1,2,2-tetrachloroethane            |       |     |        |
| 1.2-discross-betroprograme   pgl.   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.5   <0.5    |               |                        | 1,2,3-trichloropropane               | μg/L  | 0.5 | <0.5   |
| Hesacolizotabalaries   MgL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                        | trans-1,4-dichloro-2-butene          | μg/L  | 1   | <1     |
| Part    |               |                        | 1,2-dibromo-3-chloropropane          | μg/L  | 0.5 | <0.5   |
| Palogenated Aromatics   Part   Par  |               |                        | Hexachlorobutadiene                  | μg/L  | 0.5 | <0.5   |
| Bromehenzenee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | Halogenated Aromatics  | Chlorobenzene                        |       | 0.5 | <0.5   |
| 2-distordolume                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                        | Bromobenzene                         | μg/L  | 0.5 | <0.5   |
| 4-bindrolobene   4-b  |               |                        | 2-chlorotoluene                      |       | 0.5 | <0.5   |
| 1.3-dichiorobenzene   µg/L   0.5   0.5     1.4-dichiorobenzene   µg/L   0.5   0.5     1.2-dichiorobenzene   µg/L   0.5   0.5     1.3-dichiorobenzene   µg/L   0.5   0.5     Ellysbenzene   µg/L   0.5   0.5     Ellysbenzene   µg/L   0.5   0.5     m²-y-ylene   µg/L   0.5   0.5     5-ylene   0-3ylene   µg/L   0.5   0.5     5-ylene   0-3ylene   µg/L   0.5   0.5     5-ylene   0-3ylene   µg/L   0.5   0.5     1.3-dimethyltenzene   µg/L   0.5   0.5     1.3-dimethyltenzene   µg/L   0.5   0.5     1.4-dimethyltenzene   µg/L   0.5   0.5     1.2-dimethyltenzene   µg/L   0.5   0.5     1.3-dimethyltenzene   µg/L   0.5   0.5     1.3-d  |               |                        | 4-chlorotoluene                      |       | 0.5 | <0.5   |
| 1,4-dichlorobenzene         µg/L         0.3         <0.3           1,2-dichlorobenzene         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                        |                                      |       |     |        |
| 1.2 dichlorobenzene   μg/L   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.5   <0.5   <0.5    |               |                        |                                      |       |     |        |
| 1,2.4-trichiorobenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        |                                      |       |     |        |
| 1,2,3-trichlorobenzene   µg/L   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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <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   <0.5   <0.5   <0.  |               |                        |                                      |       |     |        |
| Monocyclic Aromatic         Benzene         µg/L         0.5         <0.5           Hydrocarbona         Toluene         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        |                                      |       |     |        |
| Hydrocarbons                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | Managolio Aramatia     |                                      |       |     |        |
| Ethylbenzene         µg/L         0.5         <0.5           m/p-xylene         µg/L         1         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                        |                                      |       |     |        |
| mijp xylene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               | nydrocarbons           |                                      |       |     |        |
| Oxylene         µg/L         0.5         <0.5           Styrene (Vinyl benzene)         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |                        |                                      |       |     |        |
| Styrene (Vinyl benzene)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                        |                                      |       |     |        |
| Sopropylbenzene (Cumene)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                        |                                      |       |     |        |
| Poppy   Popsy   Pops |               |                        |                                      |       |     |        |
| 1,3,5-trimethylbenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        |                                      |       |     |        |
| tert-butylibenzene         µg/L         0.5         <0.5           1,2,4-trimethylbenzene         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                        | n-propylbenzene                      | μg/L  |     |        |
| 1,2,4-trimethylbenzene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        | 1,3,5-trimethylbenzene               | μg/L  |     |        |
| sec-butylbenzene         μg/L         0.5         <0.5           p-isopropyltoluene         μg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                        | tert-butylbenzene                    | μg/L  | 0.5 | <0.5   |
| p-isopropyltoluene         µg/L         0.5         <0.5           n-butylbenzene         µg/L         0.5         <0.5           Nitrogenous Compounds         Acrylonitrile         µg/L         0.5         <0.5           Oxygenated Compounds         Acetone (2-propanone)         µg/L         10         <10           MBE (Methyl-tert-butyl ether)         µg/L         2         <2           Vinyl acetate         µg/L         10         <10           MEK (2-butanone)         µg/L         10         <10           MiBK (4-methyl-2-pentanone)         µg/L         5         <5           2-hexanone (MBK)         µg/L         5         <5           Sulphonated         µg/L         0.5         <0.5           Sulphonated         Carbon disulfide         µg/L         2         <2           Surrogates         d4-1,2-dichloroethane (Surrogate)         %         -         96           d8-toluene (Surrogate)         %         -         95           Bromofluorobenzene (Surrogate)         %         -         97           Trihalomethanes         Chloroform (THM)         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                        | 1,2,4-trimethylbenzene               | μg/L  | 0.5 | <0.5   |
| n-butylbenzene         µg/L         0.5         <0.5           Nitrogenous Compounds         Acrylonitrile         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                        | sec-butylbenzene                     | μg/L  | 0.5 | <0.5   |
| Nitrogenous Compounds         Acrylonitrile         µg/L         0.5         <0.5           Oxygenated Compounds         Acetone (2-propanone)         µg/L         10         <10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                        | p-isopropyltoluene                   | μg/L  | 0.5 | <0.5   |
| Nitrogenous Compounds         Acrylonitrile         µg/L         0.5         <0.5           Oxygenated Compounds         Acetone (2-propanone)         µg/L         10         <10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |               |                        | n-butylbenzene                       | μg/L  | 0.5 | <0.5   |
| MtBE (Methyl-tert-butyl ether)         µg/L         2         <2           Vinyl acetate         µg/L         10         <10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | Nitrogenous Compounds  | Acrylonitrile                        | μg/L  | 0.5 | <0.5   |
| MtBE (Methyl-tert-butyl ether)         µg/L         2         <2           Vinyl acetate         µg/L         10         <10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | Oxygenated Compounds   | Acetone (2-propanone)                |       | 10  | <10    |
| Vinyl acetate         µg/L         10         <10           MEK (2-butanone)         µg/L         10         <10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                        |                                      |       |     | <2     |
| MEK (2-butanone)         µg/L         10         <10           MIBK (4-methyl-2-pentanone)         µg/L         5         <5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                        |                                      |       | 10  | <10    |
| MIBK (4-methyl-2-pentanone)         µg/L         5         <5           2-hexanone (MBK)         µg/L         5         <5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                        |                                      |       |     |        |
| 2-hexanone (MBK)         µg/L         5         <5           Polycyclic VOCs         Naphthalene         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        |                                      |       |     |        |
| Polycyclic VOCs         Naphthalene         µg/L         0.5         <0.5           Sulphonated         Carbon disulfide         µg/L         2         <2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |               |                        |                                      |       |     |        |
| Sulphonated         Carbon disulfide         µg/L         2         <2           Surrogates         d4-1,2-dichloroethane (Surrogate)         %         -         96           d8-toluene (Surrogate)         %         -         95           Bromofluorobenzene (Surrogate)         %         -         97           Trihalomethanes         Chloroform (THM)         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               | Polycyclic VOCs        |                                      |       |     |        |
| Surrogates         d4-1,2-dichloroethane (Surrogate)         %         -         96           d8-toluene (Surrogate)         %         -         95           Bromofluorobenzene (Surrogate)         %         -         97           Trihalomethanes         Chloroform (THM)         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                        |                                      |       |     |        |
| d8-toluene (Surrogate)         %         -         95           Bromofluorobenzene (Surrogate)         %         -         97           Trihalomethanes         Chloroform (THM)         µg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                        |                                      |       |     |        |
| Bromofluorobenzene (Surrogate)         %         -         97           Trihalomethanes         Chloroform (THM)         μg/L         0.5         <0.5           Bromodichloromethane (THM)         μg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               | ourroyates             |                                      |       |     |        |
| Trihalomethanes         Chloroform (THM)         μg/L         0.5         <0.5           Bromodichloromethane (THM)         μg/L         0.5         <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                        |                                      |       |     |        |
| Bromodichloromethane (THM) µg/L 0.5 <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               | <del></del>            | <u>`</u>                             |       |     |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               | Irihalomethanes        |                                      |       |     |        |
| Dibromochloromethane (THM) µg/L 0.5 <0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                        | <u> </u>                             |       |     |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                        | Dibromochloromethane (THM)           | μg/L  | 0.5 | <0.5   |

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Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

|  | (continued) |
|--|-------------|
|  |             |

Method: ME-(AU)-[ENV]AN433

| VOCS III Water (COIII | iliueu)              |                                   |       | Men        | od. IVIE-(AO)-[E144]A1443 |  |  |
|-----------------------|----------------------|-----------------------------------|-------|------------|---------------------------|--|--|
| Sample Number         |                      | Parameter                         | Units | LOR        | Result                    |  |  |
| LB205796.001          | Trihalomethanes      | Bromoform (THM)                   | μg/L  | µg/L 0.5 < |                           |  |  |
| Volatile Petroleum Hy | ydrocarbons in Water |                                   |       | Metho      | od: ME-(AU)-[ENV]AN43     |  |  |
| Sample Number         |                      | Parameter                         | Units | LOR        | Result                    |  |  |
| LB205796.001          |                      | TRH C6-C9                         | μg/L  | 40         | <40                       |  |  |
|                       | Surrogates           | d4-1,2-dichloroethane (Surrogate) | %     | -          | 96                        |  |  |
|                       |                      | d8-toluene (Surrogate)            | %     | -          | 95                        |  |  |
|                       |                      | Bromofluorobenzene (Surrogate)    | %     | -          | 97                        |  |  |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

| Original     | Duplicate    | Parameter           | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|---------------------|-------|-----|----------|-----------|------------|-------|
| SE209379.003 | LB205652.007 | Conductivity @ 25 C | μS/cm | 2   | 4100     | 4200      | 15         | 3     |

## Mercury (dissolved) in Water

## Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Original     | Duplicate    | Parameter | Units | LOR    | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|--------|----------|-----------|------------|-------|
| SE209400.008 | LB205681.011 | Mercury   | μg/L  | 0.0001 | <0.0001  | <0.0001   | 200        | 0     |

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN420

| Original     | Duplicate    | Parameter                    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|------------------------------|-------|-----|----------|-----------|------------|-------|
| SE209384.010 | LB205665.025 | Naphthalene                  | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 2-methylnaphthalene          | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | 1-methylnaphthalene          | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthylene               | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Acenaphthene                 | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluorene                     | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Phenanthrene                 | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Anthracene                   | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Fluoranthene                 | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Pyrene                       | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)anthracene           | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Chrysene                     | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(b&j)fluoranthene       | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(k)fluoranthene         | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Benzo(a)pyrene               | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Indeno(1,2,3-cd)pyrene       | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Dibenzo(ah)anthracene        | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              | Surrogates   | Benzo(ghi)perylene           | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | d5-nitrobenzene (Surrogate)  | μg/L  | -   | 0.3      | 0.3       | 30         | 3     |
|              |              | 2-fluorobiphenyl (Surrogate) | μg/L  | -   | 0.4      | 0.4       | 30         | 5     |
|              |              | d14-p-terphenyl (Surrogate)  | μg/L  | -   | 0.5      | 0.5       | 30         | 4     |

## pH in water

## Method: ME-(AU)-[ENV]AN101

| Original     | Duplicate    | Parameter | Units    | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|----------|-----|----------|-----------|------------|-------|
| SE209379.003 | LB205652.007 | pH**      | pH Units | -   | 4.6      | 4.5       | 17         | 1     |

## Trace Metals (Dissolved) in Water by ICPMS

## Method: ME-(AU)-[ENV]AN318

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE209379.001 | LB205820.014 | Arsenic, As  | μg/L  | 1   | <1       | 1         | 117        | 7     |
|              |              | Cadmium, Cd  | μg/L  | 0.1 | <0.1     | <0.1      | 118        | 0     |
|              |              | Chromium, Cr | μg/L  | 1   | 1        | 1         | 104        | 2     |
|              |              | Copper, Cu   | μg/L  | 1   | 22       | 21        | 20         | 0     |
|              |              | Lead, Pb     | μg/L  | 1   | <1       | <1        | 136        | 0     |
|              |              | Nickel, Ni   | μg/L  | 1   | 26       | 26        | 19         | 0     |
|              |              | Zinc, Zn     | μg/L  | 5   | 74       | 72        | 22         | 2     |
| SE209418.001 | LB205820.028 | Arsenic, As  | μg/L  | 1   | 2        | 2         | 57         | 8     |
|              |              | Cadmium, Cd  | μg/L  | 0.1 | <0.1     | <0.1      | 200        | 0     |
|              |              | Chromium, Cr | μg/L  | 1   | <1       | <1        | 200        | 0     |
|              |              | Copper, Cu   | μg/L  | 1   | 5        | 5         | 36         | 5     |
|              |              | Lead, Pb     | μg/L  | 1   | <1       | <1        | 200        | 0     |
|              |              | Nickel, Ni   | μg/L  | 1   | 11       | 12        | 24         | 7     |
|              |              | Zinc, Zn     | μg/L  | 5   | 23       | 25        | 36         | 10    |

## TRH (Total Recoverable Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    | Parameter   | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|-------|-----|----------|-----------|------------|-------|
| SE209384.010 | LB205665.025 | TRH C10-C14 | μg/L  | 50  | <50      | <50       | 200        | 0     |
|              |              | TRH C15-C28 | μg/L  | 200 | <200     | <200      | 200        | 0     |
|              |              | TRH C29-C36 | μg/L  | 200 | <200     | <200      | 200        | 0     |

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## **DUPLICATES**

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### TRH (Total Recoverable Hydrocarbons) in Water (continued)

## Method: ME-(AU)-[ENV]AN403

| Original     | Duplicate    |             | Parameter         | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-------------|-------------------|-------|-----|----------|-----------|------------|-------|
| SE209384.010 | LB205665.025 |             | TRH C37-C40       | μg/L  | 200 | <200     | <200      | 200        | 0     |
|              |              |             | TRH C10-C40       | μg/L  | 320 | <650     | <650      | 200        | 0     |
|              |              | TRH F Bands | TRH >C10-C16      | μg/L  | 60  | <60      | <60       | 200        | 0     |
|              |              |             | TRH >C16-C34 (F3) | μg/L  | 500 | <500     | <500      | 200        | 0     |
|              |              |             | TRH >C34-C40 (F4) | μg/L  | 500 | <500     | <500      | 200        | 0     |

#### **VOCs in Water**

## Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                                 | Units    | LOR | Original | Duplicate    | Criteria % | RPD % |
|--------------|--------------|-------------|-------------------------------------------|----------|-----|----------|--------------|------------|-------|
| SE209379.003 | LB205796.021 | Fumigants   | 2,2-dichloropropane                       | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | 1,2-dichloropropane                       | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | cis-1,3-dichloropropene                   | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | trans-1,3-dichloropropene                 | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | 1,2-dibromoethane (EDB)                   | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              | Halogenated | Dichlorodifluoromethane (CFC-12)          | μg/L     | 5   | <5       | 0.0218575576 | 200        | 0     |
|              |              | Aliphatics  | Chloromethane                             | μg/L     | 5   | <5       | 0.0969633034 | 200        | 0     |
|              |              |             | Vinyl chloride (Chloroethene)             | μg/L     | 0.3 | <0.3     | 0.0341861876 | 200        | 0     |
|              |              |             | Bromomethane                              | μg/L     | 10  | <10      | 0.0712268014 | 200        | 0     |
|              |              |             | Chloroethane                              | μg/L     | 5   | <5       | 0.0581350986 | 200        | 0     |
|              |              |             | Trichlorofluoromethane                    | μg/L     | 1   | <1       | 0.0224520922 | 200        | 0     |
|              |              |             | Iodomethane                               | μg/L     | 5   | <5       | 0.0912541609 | 200        | 0     |
|              |              |             | 1,1-dichloroethene                        | μg/L     | 0.5 | <0.5     | 0.0646659091 | 200        | 0     |
|              |              |             | Dichloromethane (Methylene chloride)      | μg/L     | 5   | <5       | 0.3123674567 | 200        | 0     |
|              |              |             | Allyl chloride                            | μg/L     | 2   | <2       | 0.0050668673 | 200        | 0     |
|              |              |             | trans-1,2-dichloroethene                  | μg/L     | 0.5 | <0.5     | 0.0082382690 | 200        | 0     |
|              |              |             | 1,1-dichloroethane                        | μg/L     | 0.5 | <0.5     | 0.0110715919 | 200        | 0     |
|              |              |             | cis-1,2-dichloroethene                    | μg/L     | 0.5 | <0.5     | 0.0043680382 | 200        | 0     |
|              |              |             | Bromochloromethane                        | µg/L     | 0.5 | <0.5     | 0.0114186058 | 200        | 0     |
|              |              |             | 1,2-dichloroethane                        | μg/L     | 0.5 | <0.5     | 0.0381769395 | 200        | 0     |
|              |              |             | 1,1,1-trichloroethane                     | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | 1,1-dichloropropene                       | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Carbon tetrachloride                      | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Dibromomethane                            |          | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Trichloroethene (Trichloroethylene,TCE)   | μg/L     | 0.5 | <0.5     | 0.0410149357 | 200        | 0     |
|              |              |             |                                           | μg/L     |     |          |              |            | 0     |
|              |              |             | 1,1,2-trichloroethane                     | μg/L     | 0.5 | <0.5     | 0            | 200        |       |
|              |              |             | 1,3-dichloropropane                       | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Tetrachloroethene (Perchloroethylene,PCE) | μg/L<br> | 0.5 | <0.5     | 0.0046824291 | 200        | 0     |
|              |              |             | 1,1,1,2-tetrachloroethane                 | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | cis-1,4-dichloro-2-butene                 | μg/L     | 1   | <1       | 0.0198120819 | 200        | 0     |
|              |              |             | 1,1,2,2-tetrachloroethane                 | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | 1,2,3-trichloropropane                    | μg/L     | 0.5 | <0.5     | 0.0044901235 | 200        | 0     |
|              |              |             | trans-1,4-dichloro-2-butene               | μg/L     | 1   | <1       | 0            | 200        | 0     |
|              |              |             | 1,2-dibromo-3-chloropropane               | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Hexachlorobutadiene                       | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              | Halogenated | Chlorobenzene                             | μg/L     | 0.5 | <0.5     | 0.0778610047 | 200        | 0     |
|              |              | Aromatics   | Bromobenzene                              | μg/L     | 0.5 | <0.5     | 0.0041340121 | 200        | 0     |
|              |              |             | 2-chlorotoluene                           | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | 4-chlorotoluene                           | μg/L     | 0.5 | <0.5     | 0.0035778758 | 200        | 0     |
|              |              |             | 1,3-dichlorobenzene                       | μg/L     | 0.5 | <0.5     | 0.0082028814 | 200        | 0     |
|              |              |             | 1,4-dichlorobenzene                       | μg/L     | 0.3 | < 0.3    | 0.0075575162 | 200        | 0     |
|              |              |             | 1,2-dichlorobenzene                       | μg/L     | 0.5 | <0.5     | 0.0481516141 | 200        | 0     |
|              |              |             | 1,2,4-trichlorobenzene                    | μg/L     | 0.5 | <0.5     | 0.0022831751 | 200        | 0     |
|              |              |             | 1,2,3-trichlorobenzene                    | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              | Monocyclic  | Benzene                                   | μg/L     | 0.5 | <0.5     | 0.0709953161 | 200        | 0     |
|              |              | Aromatic    | Toluene                                   | µg/L     | 0.5 | <0.5     | 0.1342329676 | 200        | 0     |
|              |              |             | Ethylbenzene                              | μg/L     | 0.5 | <0.5     | 0.0867650901 | 200        | 0     |
|              |              |             | m/p-xylene                                | µg/L     | 1   | <1       | 0.2428947107 | 200        | 0     |
|              |              |             | o-xylene                                  | µg/L     | 0.5 | <0.5     | 0.1008486267 | 200        | 0     |
|              |              |             | Styrene (Vinyl benzene)                   | μg/L     | 0.5 | <0.5     | 0            | 200        | 0     |
|              |              |             | Isopropylbenzene (Cumene)                 | μg/L     | 0.5 | <0.5     | 0.0094876380 | 200        | 0     |
|              |              |             | n-propylbenzene                           | μg/L     | 0.5 | <0.5     | 0.0056860456 | 200        | 0     |
|              |              |             | ii propyrociizerie                        | µ9/L     | 0.0 | ~0.0     | 0.000000400  | 200        |       |

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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### VOCs in Water (continued)

### Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |               | Parameter                         | Units | LOR | Original | Duplicate     | Criteria % | RPD % |
|--------------|--------------|---------------|-----------------------------------|-------|-----|----------|---------------|------------|-------|
| SE209379.003 | LB205796.021 | Monocyclic    | tert-butylbenzene                 | μg/L  | 0.5 | <0.5     | 0             | 200        | 0     |
|              |              | Aromatic      | 1,2,4-trimethylbenzene            | μg/L  | 0.5 | <0.5     | 0.0270376485  | 200        | 0     |
|              |              |               | sec-butylbenzene                  | μg/L  | 0.5 | <0.5     | 0             | 200        | 0     |
|              |              |               | p-isopropyltoluene                | μg/L  | 0.5 | <0.5     | 0.0051470435  | 200        | 0     |
|              |              |               | n-butylbenzene                    | μg/L  | 0.5 | <0.5     | 0.0063218082  | 200        | 0     |
|              |              | Nitrogenous   | Acrylonitrile                     | μg/L  | 0.5 | <0.5     | 0.0263664343  | 200        | 0     |
|              |              | Oxygenated    | Acetone (2-propanone)             | μg/L  | 10  | <10      | 1.0732291652  | 200        | 0     |
|              |              | Compounds     | MtBE (Methyl-tert-butyl ether)    | μg/L  | 2   | <2       | 0.0173552770  | 200        | 0     |
|              |              |               | Vinyl acetate                     | μg/L  | 10  | <10      | 0             | 200        | 0     |
|              |              |               | MEK (2-butanone)                  | μg/L  | 10  | <10      | 0             | 200        | 0     |
|              |              |               | MIBK (4-methyl-2-pentanone)       | μg/L  | 5   | <5       | 0.0373521892  | 200        | 0     |
|              |              |               | 2-hexanone (MBK)                  | μg/L  | 5   | <5       | 0             | 200        | 0     |
|              |              | Polycyclic    | Naphthalene                       | μg/L  | 0.5 | <0.5     | 0.0531855954  | 200        | 0     |
|              |              | Sulphonated   | Carbon disulfide                  | μg/L  | 2   | <2       | 0             | 200        | 0     |
|              |              | Surrogates    | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 10.2     | 9.7366507160  | 30         | 4     |
|              |              |               | d8-toluene (Surrogate)            | μg/L  | -   | 9.9      | 10.0420551341 | 30         | 1     |
|              |              |               | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.2     | 9.7133245346  | 30         | 5     |
|              |              | Trihalomethan | Chloroform (THM)                  | μg/L  | 0.5 | 1.7      | 1.7385182683  | 59         | 4     |
|              |              | es            | Bromodichloromethane (THM)        | μg/L  | 0.5 | <0.5     | 0.2446066136  | 200        | 0     |
|              |              |               | Dibromochloromethane (THM)        | μg/L  | 0.5 | <0.5     | 0.0452746342  | 200        | 0     |
|              |              |               | Bromoform (THM)                   | μg/L  | 0.5 | <0.5     | 0             | 200        | 0     |

## Volatile Petroleum Hydrocarbons in Water

## Method: ME-(AU)-[ENV]AN433

| Original     | Duplicate    |             | Parameter                         | Units | LOR | Original | Duplicate     | Criteria % | RPD % |
|--------------|--------------|-------------|-----------------------------------|-------|-----|----------|---------------|------------|-------|
| SE209379.003 | LB205796.021 |             | TRH C6-C10                        | μg/L  | 50  | <50      | 4.7611052356  | 200        | 0     |
|              |              |             | TRH C6-C9                         | μg/L  | 40  | <40      | 4.3329901351  | 200        | 0     |
|              |              | Surrogates  | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 10.2     | 9.7366507160  | 30         | 4     |
|              |              |             | d8-toluene (Surrogate)            | μg/L  | -   | 9.9      | 10.0420551341 | 30         | 1     |
|              |              |             | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.2     | 9.7133245346  | 30         | 5     |
|              |              | VPH F Bands | Benzene (F0)                      | μg/L  | 0.5 | <0.5     | 0.0709953161  | 200        | 0     |
|              |              |             | TRH C6-C10 minus BTEX (F1)        | μg/L  | 50  | <50      | 4.7611052356  | 200        | 0     |

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## LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

| Sample Number | Parameter           | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|---------------------|-------|-----|--------|----------|------------|------------|
| LB205652.002  | Conductivity @ 25 C | μS/cm | 2   | 310    | 303      | 90 - 110   | 101        |

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN420

| Sample Number | Parameter                    | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------------------------|-------|-----|--------|----------|------------|------------|
| LB205665.002  | Naphthalene                  | μg/L  | 0.1 | 31     | 40       | 60 - 140   | 77         |
|               | Acenaphthylene               | μg/L  | 0.1 | 35     | 40       | 60 - 140   | 87         |
|               | Acenaphthene                 | μg/L  | 0.1 | 36     | 40       | 60 - 140   | 91         |
|               | Phenanthrene                 | μg/L  | 0.1 | 39     | 40       | 60 - 140   | 96         |
|               | Anthracene                   | μg/L  | 0.1 | 36     | 40       | 60 - 140   | 91         |
|               | Fluoranthene                 | μg/L  | 0.1 | 38     | 40       | 60 - 140   | 96         |
|               | Pyrene                       | μg/L  | 0.1 | 36     | 40       | 60 - 140   | 91         |
|               | Benzo(a)pyrene               | μg/L  | 0.1 | 36     | 40       | 60 - 140   | 89         |
| Surrogates    | d5-nitrobenzene (Surrogate)  | μg/L  | -   | 0.3    | 0.5      | 40 - 130   | 62         |
|               | 2-fluorobiphenyl (Surrogate) | μg/L  | -   | 0.4    | 0.5      | 40 - 130   | 78         |
|               | d14-p-terphenyl (Surrogate)  | μg/L  | -   | 0.5    | 0.5      | 40 - 130   | 92         |

### pH in water

| Method: ME-(A | J)-[ENV]AN101 |
|---------------|---------------|
|---------------|---------------|

| Sample Number | Parameter | Units   | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-----------|---------|-----|--------|----------|------------|------------|
| LB205652.003  | pH**      | No unit | -   | 7.4    | 7.415    | 98 - 102   | 99         |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| Parameter    | Units                                                               | LOR                                                                                                                                                                                                 | Result                                                                                                                                                                                                                                                            | Expected                                                                                                                                                                                                                                                                                                                            | Criteria %                                                                                                                                                                                                                                                                                                                                                                                            | Recovery %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arsenic, As  | μg/L                                                                | 1                                                                                                                                                                                                   | 19                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 93                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Cadmium, Cd  | μg/L                                                                | 0.1                                                                                                                                                                                                 | 21                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Chromium, Cr | μg/L                                                                | 1                                                                                                                                                                                                   | 22                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 109                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Copper, Cu   | μg/L                                                                | 1                                                                                                                                                                                                   | 22                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 112                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Lead, Pb     | μg/L                                                                | 1                                                                                                                                                                                                   | 22                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 112                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Nickel, Ni   | μg/L                                                                | 1                                                                                                                                                                                                   | 21                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 103                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Zinc, Zn     | μg/L                                                                | 5                                                                                                                                                                                                   | 22                                                                                                                                                                                                                                                                | 20                                                                                                                                                                                                                                                                                                                                  | 80 - 120                                                                                                                                                                                                                                                                                                                                                                                              | 109                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|              | Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Lead, Pb Nickel, Ni | Arsenic, As         μg/L           Cadmium, Cd         μg/L           Chromium, Cr         μg/L           Copper, Cu         μg/L           Lead, Pb         μg/L           Nickel, Ni         μg/L | Arsenic, As         μg/L         1           Cadmium, Cd         μg/L         0.1           Chromium, Cr         μg/L         1           Copper, Cu         μg/L         1           Lead, Pb         μg/L         1           Nickel, Ni         μg/L         1 | Arsenic, As         μg/L         1         19           Cadmium, Cd         μg/L         0.1         21           Chromium, Cr         μg/L         1         22           Copper, Cu         μg/L         1         22           Lead, Pb         μg/L         1         22           Nickel, Ni         μg/L         1         21 | Arsenic, As         μg/L         1         19         20           Cadmium, Cd         μg/L         0.1         21         20           Chromium, Cr         μg/L         1         22         20           Copper, Cu         μg/L         1         22         20           Lead, Pb         μg/L         1         22         20           Nickel, Ni         μg/L         1         21         20 | Arsenic, As         µg/L         1         19         20         80 - 120           Cadmium, Cd         µg/L         0.1         21         20         80 - 120           Chromium, Cr         µg/L         1         22         20         80 - 120           Copper, Cu         µg/L         1         22         20         80 - 120           Lead, Pb         µg/L         1         22         20         80 - 120           Nickel, Ni         µg/L         1         21         20         80 - 120 |

#### TRH (Total Recoverable Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN403

| Sample Number |             | Parameter         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|-------------------|-------|-----|--------|----------|------------|------------|
| LB205665.002  |             | TRH C10-C14       | μg/L  | 50  | 960    | 1200     | 60 - 140   | 80         |
|               |             | TRH C15-C28       | μg/L  | 200 | 1200   | 1200     | 60 - 140   | 104        |
|               |             | TRH C29-C36       | μg/L  | 200 | 1200   | 1200     | 60 - 140   | 103        |
|               | TRH F Bands | TRH >C10-C16      | μg/L  | 60  | 1100   | 1200     | 60 - 140   | 88         |
|               |             | TRH >C16-C34 (F3) | μg/L  | 500 | 1400   | 1200     | 60 - 140   | 114        |
|               |             | TRH >C34-C40 (F4) | μg/L  | 500 | 590    | 600      | 60 - 140   | 99         |

#### **VOCs in Water**

## Method: ME-(AU)-[ENV]AN433

| Sample Number |               | Parameter                               | Units | LUK | Result | Expected | Criteria % | Recovery % |
|---------------|---------------|-----------------------------------------|-------|-----|--------|----------|------------|------------|
| LB205796.002  | Halogenated   | 1,1-dichloroethene                      | μg/L  | 0.5 | 45     | 45.45    | 60 - 140   | 99         |
|               | Aliphatics    | 1,2-dichloroethane                      | μg/L  | 0.5 | 51     | 45.45    | 60 - 140   | 111        |
|               |               | Trichloroethene (Trichloroethylene,TCE) | μg/L  | 0.5 | 48     | 45.45    | 60 - 140   | 106        |
|               | Halogenated   | Chlorobenzene                           | μg/L  | 0.5 | 56     | 45.45    | 60 - 140   | 123        |
|               | Monocyclic    | Benzene                                 | μg/L  | 0.5 | 53     | 45.45    | 60 - 140   | 118        |
|               | Aromatic      | Toluene                                 | μg/L  | 0.5 | 52     | 45.45    | 60 - 140   | 114        |
|               |               | Ethylbenzene                            | μg/L  | 0.5 | 51     | 45.45    | 60 - 140   | 112        |
|               |               | m/p-xylene                              | μg/L  | 1   | 100    | 90.9     | 60 - 140   | 112        |
|               |               | o-xylene                                | μg/L  | 0.5 | 52     | 45.45    | 60 - 140   | 114        |
|               | Surrogates    | d4-1,2-dichloroethane (Surrogate)       | μg/L  | -   | 10.2   | 10       | 60 - 140   | 102        |
|               |               | d8-toluene (Surrogate)                  | μg/L  | -   | 10.1   | 10       | 70 - 130   | 101        |
|               |               | Bromofluorobenzene (Surrogate)          | μg/L  | -   | 9.8    | 10       | 70 - 130   | 98         |
|               | Trihalomethan | Chloroform (THM)                        | μg/L  | 0.5 | 54     | 45.45    | 60 - 140   | 118        |
|               |               |                                         |       |     |        |          |            |            |

## Volatile Petroleum Hydrocarbons in Water

## Method: ME-(AU)-[ENV]AN433

| Sample Number |            | Parameter                         | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|------------|-----------------------------------|-------|-----|--------|----------|------------|------------|
| LB205796.002  |            | TRH C6-C10                        | μg/L  | 50  | 950    | 946.63   | 60 - 140   | 100        |
|               |            | TRH C6-C9                         | μg/L  | 40  | 820    | 818.71   | 60 - 140   | 100        |
|               | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 10.2   | 10       | 60 - 140   | 102        |

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## LABORATORY CONTROL SAMPLES

SE209379 R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Volatile Petroleum Hydrocarbons in Water (continued)

### Method: ME-(AU)-[ENV]AN433

| Sample Number | r           | Parameter                      | Units | LOR | Result | Expected | Criteria % | Recovery % |
|---------------|-------------|--------------------------------|-------|-----|--------|----------|------------|------------|
| LB205796.002  | Surrogates  | d8-toluene (Surrogate)         | μg/L  | -   | 10.1   | 10       | 70 - 130   | 101        |
|               |             | Bromofluorobenzene (Surrogate) | μg/L  | -   | 9.8    | 10       | 70 - 130   | 98         |
|               | VPH F Bands | TRH C6-C10 minus BTEX (F1)     | μg/L  | 50  | 640    | 639.67   | 60 - 140   | 100        |

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## **MATRIX SPIKES**

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### Mercury (dissolved) in Water

#### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| QC Sample    | Sample Number | Parameter | Units | LOR    | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|--------|--------|----------|-------|-----------|
| SE209359.018 | LB205681.004  | Mercury   | mg/L  | 0.0001 | 0.0072 | <0.0001  | 0.008 | 89        |

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| QC Sample    | Sample Number | Parameter    | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|--------------|-------|-----|--------|----------|-------|-----------|
| SE209279.018 | LB205820.004  | Arsenic, As  | μg/L  | 1   | 21     | <1       | 20    | 103       |
|              |               | Cadmium, Cd  | μg/L  | 0.1 | 22     | <0.1     | 20    | 112       |
|              |               | Chromium, Cr | μg/L  | 1   | 22     | <1       | 20    | 111       |
|              |               | Copper, Cu   | μg/L  | 1   | 23     | <1       | 20    | 115       |
|              |               | Lead, Pb     | μg/L  | 1   | 23     | <1       | 20    | 113       |
|              |               | Nickel, Ni   | μg/L  | 1   | 21     | <1       | 20    | 104       |
|              |               | Zinc, Zn     | μg/L  | 5   | 23     | <5       | 20    | 115       |

## TRH (Total Recoverable Hydrocarbons) in Water

## Method: ME-(AU)-[ENV]AN403

| QC Sample    | Sample Number |             | Parameter                       | Units | LOR | Result | Original | Spike | Recovery% |
|--------------|---------------|-------------|---------------------------------|-------|-----|--------|----------|-------|-----------|
| SE209379.003 | LB205665.026  |             | TRH C10-C14                     | μg/L  | 50  | 1200   | 76       | 1200  | 97        |
|              |               |             | TRH C15-C28                     | μg/L  | 200 | 1400   | <200     | 1200  | 119       |
|              |               |             | TRH C29-C36                     | μg/L  | 200 | 1300   | <200     | 1200  | 109       |
|              |               |             | TRH C37-C40                     | μg/L  | 200 | <200   | <200     | -     | -         |
|              |               |             | TRH C10-C40                     | μg/L  | 320 | 4000   | <320     | -     | -         |
|              |               | TRH F Bands | TRH >C10-C16                    | μg/L  | 60  | 1300   | 76       | 1200  | 104       |
|              |               |             | TRH >C10-C16 - Naphthalene (F2) | μg/L  | 60  | 1300   | 76       | -     | -         |
|              |               |             | TRH >C16-C34 (F3)               | μg/L  | 500 | 1600   | <500     | 1200  | 131       |
|              |               |             | TRH >C34-C40 (F4)               | μg/L  | 500 | 550    | <500     | 600   | 91        |

#### VOCs in Water

## Method: ME-(AU)-[ENV]AN433

| QC Sample    | Sample Numbe | r          | Parameter                         | Units | LOR | Original       | Spike | Recovery% |
|--------------|--------------|------------|-----------------------------------|-------|-----|----------------|-------|-----------|
| SE209471.001 | LB205796.022 | Monocyclic | Benzene                           | μg/L  | 0.5 | 0              | 45.45 | 101       |
|              |              | Aromatic   | Toluene                           | μg/L  | 0.5 | 0.01469679013  | 45.45 | 102       |
|              |              |            | Ethylbenzene                      | μg/L  | 0.5 | 0.00785238680  | 45.45 | 101       |
|              |              |            | m/p-xylene                        | μg/L  | 1   | 0.03775908721  | 90.9  | 101       |
|              |              |            | o-xylene                          | μg/L  | 0.5 | 0.00695269748  | 45.45 | 99        |
|              |              | Polycyclic | Naphthalene                       | μg/L  | 0.5 | 0.02685191580  | -     | -         |
|              |              | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  | -   | 10.19904009269 | -     | 104       |
|              |              |            | d8-toluene (Surrogate)            | μg/L  | -   | 9.83622750120  | -     | 103       |
|              |              |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.00403796141 | -     | 98        |

## Volatile Petroleum Hydrocarbons in Water

## Method: ME-(AU)-[ENV]AN433

|              | •             |            |                                   |       |     |                |        |           |
|--------------|---------------|------------|-----------------------------------|-------|-----|----------------|--------|-----------|
| QC Sample    | Sample Number |            | Parameter                         | Units | LOR | Original       | Spike  | Recovery% |
| SE209471.001 | LB205796.022  |            | TRH C6-C10                        | μg/L  | 50  | 0              | 946.63 | 103       |
|              |               |            | TRH C6-C9                         | μg/L  | 40  | 0              | 818.71 | 103       |
|              |               | Surrogates | d4-1,2-dichloroethane (Surrogate) | μg/L  |     | 10.19904009269 | -      | 104       |
|              |               |            | d8-toluene (Surrogate)            | μg/L  | -   | 9.83622750120  | -      | 103       |
|              |               |            | Bromofluorobenzene (Surrogate)    | μg/L  | -   | 10.00403796141 | -      | 98        |
|              |               | VPH F      | Benzene (F0)                      | μg/L  | 0.5 | 0              | -      | -         |
|              |               | Bands      | TRH C6-C10 minus BTEX (F1)        | ua/L  | 50  | 0              | 639.67 | 110       |

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## **MATRIX SPIKE DUPLICATES**

SE209379 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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## **FOOTNOTES**

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS \_\_\_\_\_ LABORATORY DETAILS \_

Contact Li Wei Manager Huong Crawford

Client El AUSTRALIA Laboratory SGS Alexandria Environmental

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PYRMONT NSW 2009

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 Facsimile
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Email li.wei@eiaustralia.com.au Email au.environmental.sydney@sgs.com

 Project
 E24724.E02 2 mandala pole, castle hill
 SGS Reference
 SE210081 R1

 Order Number
 E24724.E02
 Date Received
 18 Aug 2020

Samples 1 Date Reported 20 Aug 2020

COMMENTS

Address

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Samples clearly labelled Yes Complete documentation received Ice Bricks Sample container provider SGS Sample cooling method Samples received in correct containers 1 Water Yes Sample counts by matrix 18/8/2020 Type of documentation received COC Date documentation received Samples received in good order Samples received without headspace Yes Sample temperature upon receipt 12°C Sufficient sample for analysis Yes Turnaround time requested Two Days

SGS Australia Pty Ltd ABN 44 000 964 278

20/8/2020

Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia Australia t +61 2 8594 0400 f +61 2 8594 0499 www.sgs.com.au



## **HOLDING TIME SUMMARY**

SE210081 R1

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

#### Mercury (dissolved) in Water

#### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH4M-a      | SE210081.001 | LB206983 | 18 Aug 2020 | 18 Aug 2020 | 15 Sep 2020    | 19 Aug 2020 | 15 Sep 2020  | 19 Aug 2020 |

#### Trace Metals (Dissolved) in Water by ICPMS

## Method: ME-(AU)-[ENV]AN318

| Sample Name | Sample No.   | QC Ref   | Sampled     | Received    | Extraction Due | Extracted   | Analysis Due | Analysed    |
|-------------|--------------|----------|-------------|-------------|----------------|-------------|--------------|-------------|
| BH4M-a      | SE210081.001 | LB206994 | 18 Aug 2020 | 18 Aug 2020 | 14 Feb 2021    | 19 Aug 2020 | 14 Feb 2021  | 19 Aug 2020 |

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## **SURROGATES**

SE210081 R1

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

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SE210081 R1

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

### Mercury (dissolved) in Water

## Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Sample Number | Parameter | Units | LOR    | Result   |
|---------------|-----------|-------|--------|----------|
| LB206983.001  | Mercury   | ma/L  | 0.0001 | < 0.0001 |

### Trace Metals (Dissolved) in Water by ICPMS

## Method: ME-(AU)-[ENV]AN318

| Sample Number | Parameter    | Units | LOR | Result |
|---------------|--------------|-------|-----|--------|
| LB206994.001  | Arsenic, As  | μg/L  | 1   | <1     |
|               | Cadmium, Cd  | μg/L  | 0.1 | <0.1   |
|               | Chromium, Cr | μg/L  | 1   | <1     |
|               | Copper, Cu   | μg/L  | 1   | <1     |
|               | Lead, Pb     | μg/L  | 1   | <1     |
|               | Nickel, Ni   | μg/L  | 1   | <1     |
|               | Zinc, Zn     | μg/L  | 5   | <5     |

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## **DUPLICATES**

SE210081 R1

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

### Mercury (dissolved) in Water

### Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| Original     | Duplicate    | Parameter | Units | LOR    | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|-----------|-------|--------|----------|-----------|------------|-------|
| SE210081.001 | LB206983.014 | Mercury   | μg/L  | 0.0001 | <0.0001  | 0.0000    | 200        | 65    |
| SE210105.002 | LB206983.018 | Mercury   | μg/L  | 0.0001 | -0.00472 | -0.01744  | 200        | 0     |

### Trace Metals (Dissolved) in Water by ICPMS

### Method: ME-(AU)-[ENV]AN318

| Original     | Duplicate    | Parameter    | Units | LOR | Original | Duplicate | Criteria % | RPD % |
|--------------|--------------|--------------|-------|-----|----------|-----------|------------|-------|
| SE210081.001 | LB206994.011 | Arsenic, As  | μg/L  | 1   | 2        | 2         | 69         | 1     |
|              |              | Cadmium, Cd  | μg/L  | 0.1 | 0.2      | 0.2       | 59         | 0     |
|              |              | Chromium, Cr | μg/L  | 1   | 1        | 1         | 84         | 1     |
|              |              | Copper, Cu   | μg/L  | 1   | 22       | 22        | 20         | 2     |
|              |              | Lead, Pb     | μg/L  | 1   | 30       | 30        | 18         | 0     |
|              |              | Nickel, Ni   | μg/L  | 1   | 38       | 37        | 18         | 3     |
|              |              | Zinc, Zn     | μg/L  | 5   | 240      | 230       | 17         | 4     |

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## LABORATORY CONTROL SAMPLES

SE210081 R1

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### Trace Metals (Dissolved) in Water by ICPMS

#### Method: ME-(AU)-[ENV]AN318

| Traco motalio (Bioccivoa) iii i | rator by for the |       |     |        | .,       | noutou. IIIE () t | o, [=, a.o.o |
|---------------------------------|------------------|-------|-----|--------|----------|-------------------|--------------|
| Sample Number                   | Parameter        | Units | LOR | Result | Expected | Criteria %        | Recovery %   |
| LB206994.002                    | Arsenic, As      | μg/L  | 1   | 19     | 20       | 80 - 120          | 95           |
|                                 | Cadmium, Cd      | μg/L  | 0.1 | 21     | 20       | 80 - 120          | 104          |
|                                 | Chromium, Cr     | μg/L  | 1   | 21     | 20       | 80 - 120          | 105          |
|                                 | Copper, Cu       | μg/L  | 1   | 21     | 20       | 80 - 120          | 106          |
|                                 | Lead, Pb         | μg/L  | 1   | 21     | 20       | 80 - 120          | 107          |
|                                 | Nickel, Ni       | μg/L  | 1   | 21     | 20       | 80 - 120          | 103          |
|                                 | Zinc, Zn         | μg/L  | 5   | 21     | 20       | 80 - 120          | 103          |

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## **MATRIX SPIKES**

SE210081 R1

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## Mercury (dissolved) in Water

## Method: ME-(AU)-[ENV]AN311(Perth)/AN312

| QC Sample    | Sample Number | Parameter | Units | LOR    | Result | Original | Spike | Recovery% |
|--------------|---------------|-----------|-------|--------|--------|----------|-------|-----------|
| SE210001.008 | LB206983.004  | Mercury   | mg/L  | 0.0001 | 0.0077 | -0.01506 | 0.008 | 96        |

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## **MATRIX SPIKE DUPLICATES**

SE210081 R1

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

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## **FOOTNOTES**



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: <a href="https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf">https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf</a>

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
  QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- 3 Results less than 5 times LOR preclude acceptance criteria for RPD.
- Recovery failed acceptance criteria due to matrix interference.
- ® Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- ① LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ® Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- Recovery failed acceptance criteria due to sample heterogeneity.
- © LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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## AUSTRALIA - ENVIRONMENTAL SERVICES - MANAGEMENT PLAN QA QC PLAN

Approved: T. Pilbeam

SGS Environmental Services is accredited by NATA for Chemical Testing (Reg.No.2562) and Quality System compliance to ISO/IEC 17025. The QC parameters contained within are designed to meet NEPM 1999 requirements.

Quality Control samples included in any analytical run are listed below.

| Reagent/Analysis Blank<br>(BLK)<br>Method Blank (MB)                                     | Sample free reagents carried through the preparation/extraction/digestion procedure and analysed at the beginning of every sample batch analysis. A reagent blank is prepared and analysed with every batch of samples plus with each new batch of solvent prior to use.                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Matrix Spike<br>(MS) & Matrix Spike<br>Duplicate (MSD)                            | Sample replicates spiked with identical concentrations of target analyte(s). The spiking occurs during the sample preparation and prior to the extraction/digestion procedure. They are used to document the precision and bias of a method in a given sample matrix. Where there is not enough sample available to prepare a spiked sample, another known soil/sand or water may be used. A duplicate spiked sample is analysed at least every 20 samples. |
| Surrogate Spike (SS)                                                                     | At least one but up to three surrogate compounds are added to all samples requiring analysis for organics prior to extraction. Used to determine the extraction efficiency. They are organic compounds which are similar to the target analyte(s) in chemical composition and behaviour in the analytical process, but which are not normally found in environmental samples. Where possible they are surrogate compounds recommended by the USEPA.         |
| Control Matrix Spike (CMS)                                                               | To ensure spike recoveries can be determined for every batch of samples a control matrix is spiked with identical concentrations of target analyte(s) and then analysed. These results allow recoveries to be determined in the event that the matrix spikes are unusable (eg. matrix spikes performed on heavily contaminated samples). These are analysed at least every 20 samples.                                                                      |
| Internal Standard (IS)                                                                   | Added to all samples requiring analysis for organics (where relevant) after the extraction process; the compounds serve to give a standard of retention time and response, which is invariant from run-to-run with the instruments. Where possible they are standard compounds recommended by the USEPA.                                                                                                                                                    |
| Lab Duplicates (D)                                                                       | A separate portion of a sample being analysed that is treated the same as the other samples in the batch. One duplicate is processed at least every 10 samples.                                                                                                                                                                                                                                                                                             |
| Lab Control<br>Standards/Samples<br>(LCS)                                                | Prepared from a source independent of the calibration standards. At least one control standard is included in each run to confirm calibration validity.  Thereafter they are analysed at least every one in 20 samples plus at the end of each analytical run. This data is not reported.                                                                                                                                                                   |
| Continuous Calibration<br>Verification (CCV) or<br>Calibration Check<br>Standard & Blank | A calibration check standard or CCV and blank are run after every 20 samples of an instrumental analysis run to assess analytical drift.  Calibration Standards are checked old versus new with a criteria of ±10%                                                                                                                                                                                                                                          |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



## AUSTRALIA - ENVIRONMENTAL SERVICES - MANAGEMENT PLAN QA QC PLAN

Approved: T. Pilbeam

Quality Assurance Programs are listed below:

|                                                                                                                                                                                                               | ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Statistical analysis of Quality Control data (SQC)                                                                                                                                                            | Quality control data is plotted on control charts using the APHA procedure with warning and control limits at 2 and 3 standard deviations respectively. See also QMS Procedure "Statistical Quality Control".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Certified Reference<br>Materials (CRM/SRM)                                                                                                                                                                    | Certified Reference Materials and Standards are regularly analysed. These materials/standards have certified reference values for various parameters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Proficiency Testing                                                                                                                                                                                           | Regular proficiency test samples are analysed by our laboratories. SGS Environmental participates in a number of programs. Results and proficiency status are compiled and sent to participating laboratory post data interpretation. Failure to comply with acceptable values result in further investigations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Inter-laboratory & Intra-<br>laboratory Testing                                                                                                                                                               | SGS Environmental Services has schedules in the Quality Systems to participate in Inter/Intra laboratory testing conducted internally and by other parties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Data Acceptance Criteria  Unless otherwise specified in the method or method manual the following general criteria apply to all inorganic tests.  All recoveries are to be reported to 3 significant figures. | Failure to meet the internal acceptance criteria will result in sample batch repeats dependent upon investigation outcomes. For data to be accepted: Inorganics (water samples)  • For all inorganic analytes the Reagent & Method Blanks must be less than the LOR.  • The Calibration Check Standards or Continuous Calibration Verification (CCV) must be within ±15%.  • Control Standards must be 80-120% of the accepted value.  • The Calibration Check Blanks must be less than the LOR.  • Lab Duplicates RPD to be <15%*. Note: If client field duplicates do not meet this criteria it may indicate heterogeneity and shall be noted on the data reports for QC samples.  • Sample (and if applicable Control) Matrix Spike <sup>st</sup> Duplicate recovery RPD to be <30%.  • Where CRMs are used, results to be within ±2 standard deviations of the expected value.  Inorganics (soil samples)  • For all inorganic analytes the Reagent & Method Blanks must be less than the LOR.  • The Calibration Check Standards or Continuous Calibration Verification (CCV) must be within ±15%.  • Control Standards must be 80-120% of the accepted value.  • The Calibration Check Blanks must be less than the LOR.  • Lab duplicate RPD to be <30%* for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Sample Matrix Spike Duplicate (MS for sample results greater than 10 times LOR.  • Where CRMs are used, results to be within ± 2 standard deviations of the expected value. |

Approved: T. Pilbeam

## **Organics**

- Volatile & extractable Reagent & Method Blanks must contain levels less than or equal to LOR.
- The Calibration Check Standards or Continuous Calibration Verification (CCV) must be within <sup>±</sup>25%. Some analytes may have specific criteria.
- Control Standards (LCS/CMS) and Certified Reference Materials (CRM) recoveries are to be within established control limits or as a default 60-140% unless compound specific limits apply.
- Retention times are to vary by no more than 0.2 min.
- At least two of three routine level soil sample Surrogate Spike (SS) recoveries are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as acceptance criterion. Any recoveries outside these limits will have comment.
- Water sample Surrogates Spike (SS) recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion. Any recoveries outside these limits will have comment.
- Lab Duplicates (D) must have a RPD <30%\*.
- Sample Matrix Spike Duplicate (MS<sup>-//</sup>MSD) recovery RPD to be <30%. In the event that the matrix spike has been applied to samples whose matrix or contamination is problematic to the method then these acceptance criteria apply to the Control Matrix Spike (CMS/D).

## Data Acceptance Criteria

Unless otherwise specified in the method or method manual the following general criteria apply to all organic tests.

All recoveries are to be reported to 3 significant figures.

- \*Only if results are at least 10 times the LOR otherwise no acceptance criteria for RPD's apply. Application of more stringent criteria shall be applied for clean water sample from water boards and any other nominated client contracts. Nominal 10xLOR criteria are dropped to 5xLOR where specified.
- <sup>17</sup>Matrix do not readily equate to definitive recovery due to inherent matrix interferences and thus do not have recovery compliance values set. As a guide inorganic recoveries should be between 70-130% and for organics 60-130%

## Batch Structure Summary

An analytical batch is nominally considered as 20 samples or smaller. As a standard template the following should be **used as a guide** according to the above Quality Control Types:

| 1  | MB                        | 16 | UNK_DUP                   |
|----|---------------------------|----|---------------------------|
| 2  | STD1                      | 17 | MS                        |
| 3  | STD2                      | 18 | MS_DUP                    |
| 4  | STD3                      | 19 | UNK 11                    |
| 5  | LCS                       | 20 | UNK 12                    |
| 6  | BLK                       | 21 | UNK 13                    |
| 7  | UNK 1                     | 22 | UNK 14                    |
| 8  | UNK 2                     | 23 | UNK 15                    |
| 9  | UNK 3                     | 24 | UNK 16                    |
| 10 | UNK 4                     | 25 | UNK 17                    |
| 11 | UNK 5                     | 26 | UNK 18                    |
| 12 | UNK 6                     | 27 | UNK 19                    |
| 13 | UNK 7                     | 28 | UNK 20 (SS if applicable) |
| 14 | UNK 8                     | 29 | UNK_DUP                   |
| 15 | UNK 9                     | 30 | CCV                       |
| 16 | UNK 10 (SS if applicable) | 31 | CRM / SRM / CMS / LCS     |

| Table QC1 - Containers, Preservation Requirements and Holding Times - Soil           |                          |                        |                         |  |
|--------------------------------------------------------------------------------------|--------------------------|------------------------|-------------------------|--|
| Parameter                                                                            | Container                | Preservation           | Maximum<br>Holding Time |  |
| Acid digestible metals and<br>metalloids - Total and TCLP<br>(As,Cd.,Cu,Cr,Ni,Pb,Zn) | Glass with<br>Teflon Lid | Nil                    | 6 months                |  |
| Mercury                                                                              | Glass with<br>Teflon Lid | Nil                    | 28 days                 |  |
| TPH / BTEX / VOC / SVOC / CHC                                                        | Glass with<br>Teflon Lid | 4°C, zero<br>headspace | 14 days                 |  |
| PAHs (total and TCLP)                                                                | Glass with<br>Teflon Lid | 4°C 1                  | 14 days                 |  |
| Phenols                                                                              | Glass with<br>Teflon Lid | 4°C 1                  | 14 days                 |  |
| OCPs, OPPs and total PCBs                                                            | Glass with<br>Teflon Lid | 4°C 1                  | 14 days                 |  |
| Asbestos                                                                             | Sealed Plastic<br>Bag    | Nil                    | N/A                     |  |

| Table QC2 - Containers, Preservation Requirements and Holding Times - Water |                          |                                                   |                         |  |
|-----------------------------------------------------------------------------|--------------------------|---------------------------------------------------|-------------------------|--|
| Parameter                                                                   | Container<br>Volume (mL) | Preservation                                      | Maximum<br>Holding Time |  |
| Heavy Metals                                                                | 125mL Plastic            | Field filtration 0.45μm<br>HNO <sub>3</sub> / 4°C | 6 months                |  |
| Cyanide                                                                     | 125mL Amber<br>Glass     | pH > 12 NaOH / 4°C                                | 6 months                |  |
| TPH (C6-C9) / BTEX / VOCs<br>SVOCs / CHCs                                   | 4 x 43mL Glass           | HCI / 4°C <sup>1</sup>                            | 14 days                 |  |
| TPH (C10-C36) / PAH / Phenolics<br>OCP / OPP / TDS / pH                     | 3 x 1L Amber<br>Glass    | None / 4°C <sup>1</sup>                           | 28 days                 |  |

**Notes:** <sup>1</sup> = Extraction within 14 days, Analysis within 40 days.

| Table QC3 - Analytical Parameters, PQLs and Methods - Soil |                  |                       |                  |  |  |
|------------------------------------------------------------|------------------|-----------------------|------------------|--|--|
| Parameter                                                  | Unit             | PQL                   | Method Reference |  |  |
|                                                            | Meta             | ls in Soil            |                  |  |  |
| Arsenic - As <sup>1</sup>                                  | mg / kg          | 1                     | USEPA 200.7      |  |  |
| Cadmium - Cd <sup>1</sup>                                  | mg / kg          | 0.5                   | USEPA 200.7      |  |  |
| Chromium - Cr1                                             | mg / kg          | 1                     | USEPA 200.7      |  |  |
| Copper - Cu <sup>1</sup>                                   | mg / kg          | 1                     | USEPA 200.7      |  |  |
| Lead - Pb <sup>1</sup>                                     | mg / kg          | 1                     | USEPA 200.7      |  |  |
| Mercury - Hg <sup>2</sup>                                  | mg / kg          | 0.1                   | USEPA 7471A      |  |  |
| Nickel - Ni <sup>1</sup>                                   | mg / kg          | 1                     | USEPA 200.7      |  |  |
| Zinc - Zn <sup>1</sup>                                     | mg / kg          | 1                     | USEPA 200.7      |  |  |
|                                                            | al Petroleum Hyd | rocarbons (TP         | Hs) in Soil      |  |  |
| C <sub>6</sub> -C <sub>9</sub> fraction                    | mg / kg          | 25                    | USEPA 8260       |  |  |
| C <sub>10</sub> -C <sub>14</sub> fraction                  | mg / kg          | 50                    | USEPA 8000       |  |  |
| C <sub>15</sub> -C <sub>28</sub> fraction                  | mg / kg          | 100                   | USEPA 8000       |  |  |
| C <sub>29</sub> -C <sub>36</sub> fraction                  | mg / kg          | 100                   | USEPA 8000       |  |  |
|                                                            | BTE              | X in Soil             |                  |  |  |
| Benzene                                                    | mg / kg          | 1                     | USEPA 8260       |  |  |
| Toluene                                                    | mg / kg          | 1                     | USEPA 8260       |  |  |
| Ethylbenzene                                               | mg / kg          | 1                     | USEPA 8260       |  |  |
| m & p Xylene                                               | mg / kg          | 2                     | USEPA 8260       |  |  |
| o- Xylene                                                  | mg / kg          | 1                     | USEPA 8260       |  |  |
|                                                            | Other Organic C  | ontaminants i         | n Soil           |  |  |
| PAHs                                                       | mg / kg          | 0.05-0.2              | USEPA 8270       |  |  |
| CHCs                                                       | mg / kg          | 1                     | USEPA 8260       |  |  |
| VOCs                                                       | mg / kg          | 1                     | USEPA 8260       |  |  |
| SVOCs                                                      | mg / kg          | 1                     | USEPA 8260       |  |  |
| OCPs                                                       | mg / kg          | 0.1                   | USEPA 8140, 8080 |  |  |
| OPPs                                                       | mg / kg          | 0.1                   | USEPA 8140, 8080 |  |  |
| PCBs                                                       | mg / kg          | 0.1                   | USEPA 8080       |  |  |
| Phenolics                                                  | mg / kg          | 5                     | APHA 5530        |  |  |
|                                                            | As               | bestos                |                  |  |  |
| Asbestos                                                   | mg / kg          | Presence /<br>Absence | AS4964-2004      |  |  |

## Notes:

<sup>1.</sup> Acid Soluble Metals by ICP-AES

<sup>2.</sup> Total Recoverable Mercury

Table QC4 - Analytical Parameters, PQLs and Methods - Groundwater

| Parameter                                 | Unit          | PQL                               | Method                          | Parameter                 | Unit         | PQL    | Method                   |
|-------------------------------------------|---------------|-----------------------------------|---------------------------------|---------------------------|--------------|--------|--------------------------|
| Heavy Metals                              |               |                                   | Chlorinated Hydrocarbons (CHCs) |                           |              |        |                          |
| Antimony - Sb                             | μg/L          | 1                                 | USEPA 200.8                     | 1,2-dichlorobenzene       | μg/L         | 1      | USEPA 8260B              |
| Arsenic - As                              | μ <b>g</b> /L | 1                                 | USEPA 200.8                     | 1,3-dichlorobenzene       | μg/L         | 1      | USEPA 8260B              |
| Beryllium - Be                            | μg/L          | 0.5                               | USEPA 200.8                     | 1,4-dichlorobenzene       | μg/L         | 1      | USEPA 8260B              |
| Cadmium - Cd                              | μg/L          | 0.1                               | USEPA 200.8                     | 1,2,3-trichlorobenzene    | μg/L         | 1      | USEPA 8260B              |
| Chromium - Cr                             | μg/L          | 1                                 | USEPA 200.8                     | 1,2,4-trichlorobenzene    | μg/L         | 1      | USEPA 8260B              |
| Cobalt - Co                               | μg/L          | 1                                 | USEPA 200.8                     | Hexachlorobutadeine       | μg/L         | 1      | USEPA 8260B              |
| Copper - Cu                               | μg/L          | 1                                 | USEPA 200.8                     | 1,1,2-trichloroethane     | μg/L         | 1      | USEPA 8260B              |
| Lead - Pb                                 | μg/L          | 1                                 | USEPA 200.8                     | Hexachloroethane          | μg/L         | 10     | USEPA 8270D              |
| Mercury - Hg                              | μg/L          | 0.5                               | USEPA 7471A                     | Other CHCs                | μg/L         | 1      | USEPA 8260B              |
| Molybdenum - Mo                           | μg/L          | 1                                 | USEPA 200.8                     | Volatile Orga             |              | npound |                          |
| Nickel - Ni                               | μg/L          | 1                                 | USEPA 200.8                     | Aniline                   | μg/L         | 10     | USEPA 8260B              |
| Selenium - Se                             | μg/L          | 1                                 | USEPA 200.8                     | 2,4-dichloroaniline       | μg/L         | 10     | USEPA 8260B              |
| Silver - Ag                               | μg/L          | 1                                 | USEPA 200.8                     | 3,4-dichloroaniline       | μg/L         | 10     | USEPA 8260B              |
| Tin (inorg.) - Sn                         | μg/L          | 1                                 | USEPA 200.8                     | Nitrobenzene              | μg/L         | 50     | USEPA 8260B              |
| Nickel - Ni                               | μg/L          | 1                                 | USEPA 200.8                     | 2,4-dinitrotoluene        | μg/L         | 50     | USEPA 8260B              |
| Zinc - Zn                                 | μg/L          | 1                                 | USEPA 200.8                     | 2,4,6-trinitrotoluene     | μg/L         | 50     | USEPA 8260B              |
| Total Petroleum Hydrocarbons (TPHs)       |               |                                   | Phenolic Compounds              |                           |              |        |                          |
| C <sub>6</sub> -C <sub>9</sub> fraction   | μg/L          | 10                                | USEPA 8220A /<br>8000           | Phenol                    | μg/L         | 10     | USEPA 8041               |
| C <sub>10</sub> -C <sub>14</sub> fraction | μg/L          | 50                                | USEPA 8000                      | 2-chlorophenol            | μg/L         | 10     | USEPA 8041               |
| C <sub>15</sub> -C <sub>28</sub> fraction | μg/L          | 100                               | USEPA 8000                      | 4-chlorophenol            | μg/L         | 10     | USEPA 8041               |
| C <sub>29</sub> -C <sub>36</sub> fraction | μg/L          | 100                               | USEPA 8000                      | 2, 4-dichlorophenol       | μg/L         | 10     | USEPA 8041               |
|                                           | BT            | EX                                |                                 | 2,4,6-trichlorophenol     | μg/L         | 10     | USEPA 8041               |
| Benzene                                   | μg/L          | 1                                 | USEPA 8220A                     | 2,3,4,6-tetrachlorophenol | μg/L         | 10     | USEPA 8041               |
| Toluene                                   | μg/L          | 1                                 | USEPA 8220A                     | Pentachlorophenol         | μg/L         | 10     | USEPA 8041               |
| Ethylbenzene                              | μg/L          | 1                                 | USEPA 8220A                     | 2,4-dinitrophenol         | μg/L         | 10     | USEPA 8041               |
| m- & p-Xylene                             | μg/L          | 2                                 | USEPA 8220A                     | Miscellaneous Parameters  |              | ters   |                          |
| o-Xylene                                  | μg/L          | 1                                 | USEPA 8220A                     | Total Cyanide             | μg/L         | 5      | APHA 4500C&E-CN          |
| Polyciclic Are                            | omatic F      | lydrocai                          | bons (PAHs)                     | Fluoride                  | μg/L         | 10     | APHA 4500 F-C            |
| PAHs                                      | μg/L          | 0.1                               | USEPA 8270                      | Salinity (TDS)            | mg/L         | 1      | APHA 2510                |
| Benzo(a)pyrene                            | μg/L          | 0.01                              | USEPA 8270                      | рН                        | units        | 0.1    | APHA 4500H+              |
| OrganoChlorine Pesticides (OCPs)          |               | OrganoPhosphate Pesticides (OPPs) |                                 |                           |              |        |                          |
| Aldrin                                    | μg/L          | 0.001                             | USEPA 8081                      | Azinphos Methyl           | μg/L         | 0.01   | USEPA 8141               |
| Chlordane                                 | μg/L          | 0.001                             | USEPA 8081                      | Chloropyrifos             | μg/L         | 0.01   | USEPA 8141               |
| DDT<br>Dialdria                           | μg/L          | 0.001                             | USEPA 8081                      | Diazinon                  | μg/L         | 0.01   | USEPA 8141               |
| Dieldrin<br>Endosulfan                    | μg/L          | 0.001                             | USEPA 8081<br>USEPA 8081        | Dimethoate Fenitrothion   | μg/L         | 0.01   | USEPA 8141<br>USEPA 8141 |
| Endrin                                    | μg/L<br>μg/L  | 0.001                             | USEPA 8081                      | Malathion                 | μg/L<br>μg/L | 0.01   | USEPA 8141               |
| Heptachlor                                | μg/L<br>μg/L  | 0.001                             | USEPA 8081                      | Parathion                 | μg/L<br>μg/L | 0.01   | USEPA 8141               |
| Lindane                                   | μg/L<br>μg/L  | 0.001                             | USEPA 8081                      | Temephos                  | μg/L<br>μg/L | 0.01   | USEPA 8141               |
| Toxaphene                                 | μg/L          | 0.001                             | USEPA 8081                      | Polychlorin               |              |        |                          |
|                                           | mg/ <b>-</b>  | 5.50.                             |                                 | Individual PCBs           | μg/L         | 0.01   | USEPA 8081               |

| QC Sample Type                                 | Method of Assessment                                                                                                                                                                                                                                                                                                                              | Acceptable Range                                                                                                                                                                                                                                                                |  |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                | Field QC                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                 |  |
| Blind Duplicates and<br>Split Samples          | The assessment of split duplicate is undertaken by calculating the Relative Percent Difference (RPD) of the duplicate concentration compared with the primary sample concentration. The RPD is defined as: $\frac{\mid X_1 - X_2 \mid}{\text{mean (X1, X2)}}$ Where: $X_1$ and $X_2$ are the concentrations of the primary and duplicate samples. | The acceptable range depends upon the levels detected:  - 0-150% RPD (when the average concentration is <5 times the LOR/PQL)  - 0-75% RPD (when the average concentration is 5 to 10 times the LOR/PQL)  - 0-50% RPD (when the average concentration is >10 times the LOR/PQL) |  |
| Rinsate &<br>Trip Blanks                       | Each blank is analysed as per the original samples.                                                                                                                                                                                                                                                                                               | Analytical Result <lor pql<="" td=""></lor>                                                                                                                                                                                                                                     |  |
| Laboratory prepared<br>Trip Spike              | The Trip Spike is analysed after returning from the field and the % recovery of the known spike is calculated.                                                                                                                                                                                                                                    | 70 - 130%                                                                                                                                                                                                                                                                       |  |
|                                                | Laboratory QC                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                 |  |
| Laboratory Duplicates                          | Assessment of Lab Duplicate RPD as per Blind Duplicates and Split Samples.                                                                                                                                                                                                                                                                        | Lab Duplicate RPD < 15% (Inorganics) Lab Duplicate RPD < 30% (Organics) for sample results > 10 LOR                                                                                                                                                                             |  |
| Surrogates                                     | Assessment is undertaken by determining the percent recovery of the known surrogate spike (SS) or addition to the sample.                                                                                                                                                                                                                         | at least 2 SS recoveries to be within 70-130% subject to matrix effects (Organics)                                                                                                                                                                                              |  |
| Matrix Spikes<br>Laboratory Control<br>Samples | % Recovery = 100 x    B  Where: A = Concentration of analyte determined in the original sample; B = Added Concentration; and C = Calculated Concentration.                                                                                                                                                                                        | 80-120% (Inorganics / Metals) 60-140% (Organics) 10-140% (SVOC and Speciated Phenols)  If the result is outside the above ranges, the result must be <3x Standard Deviation of the Historical Mean (calculated over the past 12 months).                                        |  |
| Sample Matrix Spike<br>Duplicates              | Recovery RPD                                                                                                                                                                                                                                                                                                                                      | <30% (Inorganics & Organics)                                                                                                                                                                                                                                                    |  |
| Calibration Check Standars                     | Continuous Calibration Verification (CCV)                                                                                                                                                                                                                                                                                                         | CCV must be within ±15% (inorganics)<br>CCV must be within ±25% (inorganics)                                                                                                                                                                                                    |  |
| Reagent, Method & Calibration<br>Check Blanks  | Each blank is analysed as per the original samples.                                                                                                                                                                                                                                                                                               | Analytical Result <lor pql<="" td=""></lor>                                                                                                                                                                                                                                     |  |