

RAW EARTH

In Situ Excavated Natural Material (ENM) Statement of Compliance

Eileen O'Connor Catholic School 84 Gavenlock Road, Mardi, NSW 2259

July 2024

Raw Earth Environmental Pty Ltd ABN: 92 635 583 327

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REPORT DISTRIBUTION

Report Title	In Situ ENM Statement of Compliance
Site Address	Eileen O'Connor Catholic School, 84 Gavenlock Road, Mardi, NSW 2259
Lot/DP	Lot 9 DP 3368
Project Reference	S00360
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Date	17 th July 2024
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1.0: INTRODUCTION

Raw Earth Environmental (Raw Earth) were commissioned to prepare this Statement of Compliance for the beneficial re-use of soil associated with the removal of in situ material situated at the Eileen O'Connor Catholic School, 84 Gavenlock Road, Mardi, NSW 2259 (referred to herein as the site). Refer to Figure 1, **Appendix A** for the site location plan.

1.1: BACKGROUND

It is understood that certain areas of in situ soils at the site may be surplus to the development works and require beneficial reuse offsite. As such, samples were collected for ENM analysis. This report responds the requirement No 16 under the Planning Secretary's Environmental Assessment Requirements (SEARS) dated 19th February 2024.

2.0: SITE INSPECTION

A site inspection and sampling program were undertaken by Raw Earth Environmental Consultants, on the 15th and 16th July 2024. All sampling was undertaken in accordance with the requirements of the material-specific Order and Exemption published by the NSW EPA; being the *Excavated Natural Material Order and Exemption (2014)*.

A minimum of twenty four (24) sampling test pit locations were advanced via the use of hand tools and an excavator, with samples being collected evenly across the anticipated soil disturbance area of site, as well as areas where suspected fill may be present – including areas surrounding a building pad and a dam wall. Reference to the sample locations can be found in Figure 2, **Appendix A**.

2.1: SAMPLING

Via the use of an excavator and hand tools, test pit locations were advance from 0.3 meters below ground level (mBGL) to 1.8 mBGL relevant to known excavation depths at each section of site. Discrete soil samples were collected by hand directly off the excavator bucket or shovel from each sample location. All samples were placed into large clean snap lock bags (physical composition testing) and clean glass sampling jars provided by the laboratory (chemical analysis). Once collected, samples were stored in a chilled and insulated eskies and transported directly to the National Association of Testing Authority (NATA) accredited laboratory for analysis. Each sample was analysed for the chemicals and physical parameters outlined in Table 4 of the **NSW EPA ENM Order**.

A Photolog presenting the site based inspection is presented in Appendix B.

2.2: SOIL ANALYTICAL RESULTS

A review of the results indicates that the concentrations of all analytes tested met the criteria presented in Table 4 of the **NSW ENM Order** with exception of nickel concentrations in S19 (0.5 mBGL) and S23 (0.3 mBGL) which exceeded the Maximum Average and Absolute Maximum, respectively. As such, soils surrounding S19 to 0.5 mBGL and S23 to 0.3 mBGL do not meet requirements for offsite beneficial reuse.

The analytical chemical results table is presented in **Appendix C.** NATA accredited laboratory transcripts are provided in **Appendix D.**



3.0: DISCUSSION

With the exception of soils in S19 (0.5 mBGL) and S23 (0.3 mBGL), results have been reported as being less than both the Absolute Maximum concentrations and Maximum Average concentrations, and considering the homogenous, naturally occurring profile of the soils free from any anthropogenic sources of contaminants, such as brick, concrete, or debris, as well as no indications of staining, odour, or ACM. As such, soils are able to be applied to land as engineering fill or beneficially reused off site in meeting requirements of the *Excavated Natural Material Order and Exemption (2014)*.

The **ENM Order** and **Exemption (2014)** have the following requirements for notification and record keeping when carrying out work. These notification and record keeping requirements are satisfied by keeping hold of this Statement of Compliance for the 6 years required.

Notification:

On or before each transaction, the generator must provide the following to each person to whom the generator supplies the excavated natural material:

- A written statement of compliance certifying that all the requirements set out in the respective **Order** have been met (this report);
- A copy of the **Exemption**, or a link to the EPA website where they can be found; and
- A copy of the **Order**, or a link to the EPA website where they can be found.

A copy of the Orders and Exemptions are appended to this report (Appendix E).

Record Keeping and Reporting:

Any person who applies or intends to apply these materials to land as fill must keep a written record of the following for a period of six years:

- The quantity of any materials received; and
- The name and address of the supplier of the materials received.

Should you have any queries about this Statement of Compliance, please don't hesitate to contact me directly.

Yours sincerely,

J.Chiomey

Jacques Chiomey

Senior Environmental Scientist- Raw Earth Environmental

Appendices

Appendix A: Figures

Appendix B: Photograph Log

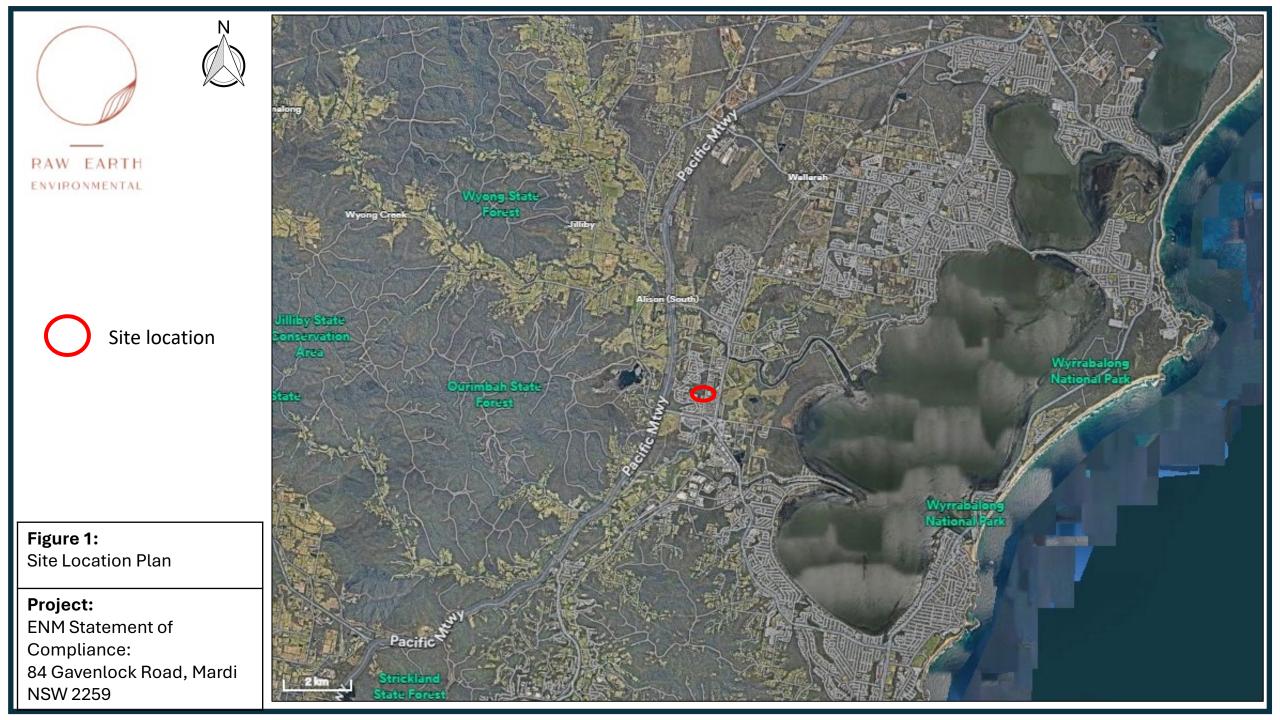
Appendix C: Analytical Soil Results Tables

Appendix D: NATA Endorsed Laboratory Transcripts

Appendix E: ENM Order 2014 & EMN Exemption 2014



APPENDIX A: FIGURES





RAW EARTH



Investigation Area Boundary (approximate)



Test Pit Sample Location (approximate)

Dam Area



1.8m excavation area

Figure 2: Sampling Plan

Project: ENM Statement of Compliance: 84 Gavenlock Road, Mardi NSW 2259





APPENDIX B: PHOTOGRAPHIC LOG









APPENDIX C: ANALYTICAL SOIL RESULTS TABLES

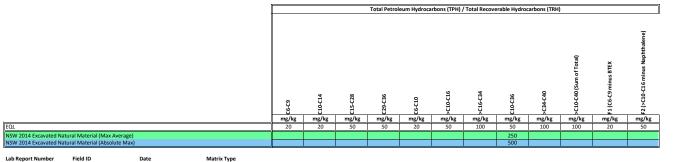
S00360 84 Gavenlock Road, Mardi NSW, 2259 Raw Earth Environmental

	Mass	Inor	ganics				Particulates			
	ର ନାର୍ମାସୀ Weight	ය රූ Conductivity (1:5 aqueous extract)	 pH (1:5 aqueous extract) 	% Bitumen	% Cloth	% Paint	% Paper	% Plastic	% Rubber	poom %
EQL	0.01	10	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NSW 2014 Excavated Natural Material (Max Average)		1.5	5-9	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
NSW 2014 Excavated Natural Material (Absolute Max)		3	4.5-10	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%

Lab Report Number	Field ID	Date	Matrix Type										
1114214	S1-0.5	01 Jul 2024	Soil	9.3	< 0.01	5.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S3	01 Jul 2024	Soil	11	< 0.01	5.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S6	01 Jul 2024	Soil	11	< 0.01	7.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S7-1.8	01 Jul 2024	Soil	10	0.01	6.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S8	01 Jul 2024	Soil	12	< 0.01	5.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S10	01 Jul 2024	Soil	6.9	0.017	5.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S11	01 Jul 2024	Soil	12	0.012	6.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S13	01 Jul 2024	Soil	6.7	0.013	6.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S15	01 Jul 2024	Soil	10	0.086	5.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S16	01 Jul 2024	Soil	7.4	< 0.01	6.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S17	01 Jul 2024	Soil	10	< 0.01	8.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S17-1.8	01 Jul 2024	Soil	9.6	0.012	7.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S19	01 Jul 2024	Soil	12	< 0.01	8.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S20	01 Jul 2024	Soil	11	< 0.01	7.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S21	01 Jul 2024	Soil	11	< 0.01	5.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S22	01 Jul 2024	Soil	8.9	< 0.01	6.0	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S23	01 Jul 2024	Soil	8.2	0.051	7.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1114214	S24	01 Jul 2024	Soil	9.1	< 0.01	6.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Statistics													
Maximum Concentration	n			12	86	8.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

		()		etals				G	Benzer	ne, Toluene, l	Ethylbenzene	and Xylenes	<u>IBTEX)</u>	
		(OC)						
ت چ بر سو/kg	E Gad mg/kg	mg/kg	rad do mg/kg	ਸ਼ ਗੁ mg/kg	Mercury Me/kg	lə Nicke mg/kg	Jun S/kg	B M/R M/S Naphthalene (V	əuəzuə Benzene mg/kg	ana no	B g/gg gg/gg	mg/kg/kg b)	(o) mg/kg	a Xylene Total a
EQL 2	0.4	5	5	5	0.1	5	5	0.5	0.1	0.1	0.1	0.2	0.1	0.3
NSW 2014 Excavated Natural Material (Max Average) 20	0.5	75	100	50	0.5	30	150							
NSW 2014 Excavated Natural Material (Absolute Max) 40	1	150	200	100	1	60	300		0.5	65	25			15

Lab Report Number	Field ID	Date	Matrix Type															
1114214	S1-0.5	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.3
1114214	S3	01 Jul 2024	Soil	<2	< 0.4	<5	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S6	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	\$7-1.8	01 Jul 2024	Soil	<2	<0.4	5.9	<5	<5	<0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	<0.2	< 0.1	< 0.3
1114214	S8	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S10	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.3
1114214	S11	01 Jul 2024	Soil	7.6	<0.4	25	<5	9.9	<0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S13	01 Jul 2024	Soil	<2	<0.4	7.3	<5	5.5	< 0.1	<5	8.3	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S15	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	<0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	<0.2	< 0.1	< 0.3
1114214	S16	01 Jul 2024	Soil	2.9	<0.4	9.1	<5	5.2	< 0.1	<5	8.1	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S17	01 Jul 2024	Soil	7.8	<0.4	32	11	8.1	< 0.1	22	19	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	\$17-1.8	01 Jul 2024	Soil	4.6	<0.4	26	8.7	8.4	<0.1	19	18	< 0.5	< 0.1	< 0.1	< 0.1	<0.2	< 0.1	< 0.3
1114214	S19	01 Jul 2024	Soil	7.2	<0.4	43	17	11	< 0.1	32	27	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S20	01 Jul 2024	Soil	7.4	<0.4	38	15	8.9	< 0.1	29	35	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S21	01 Jul 2024	Soil	<2	<0.4	<5	<5	<5	<0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	<0.2	< 0.1	< 0.3
1114214	S22	01 Jul 2024	Soil	<2	<0.4	5.3	<5	<5	< 0.1	<5	<5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S23	01 Jul 2024	Soil	2.8	<0.4	60	32	5.7	< 0.1	66	65	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3
1114214	S24	01 Jul 2024	Soil	6.4	<0.4	18	<5	9.6	< 0.1	<5	52	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.3
Statistics																		
Maximum Concentration	on			7.8	<0.4	60	32	11	< 0.1	66	65	< 0.5	< 0.1	< 0.1	< 0.1	< 0.2	<0.1	< 0.3



Field ID	Dale	watrix rype												
S1-0.5	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S3	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S6	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$7-1.8	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S8	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S10	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$11	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S13	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$15	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S16	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S17	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$17-1.8	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$19	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S20	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S21	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S22	01 Jul 2024	Soil	<20	21	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
\$23	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
S24	01 Jul 2024	Soil	<20	<20	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
n			<20	21	<50	<50	<20	<50	<100	<50	<100	<100	<20	<50
	\$3 \$6 \$7-1.8 \$8 \$10 \$11 \$13 \$15 \$15 \$16 \$17 \$17-1.8 \$19 \$20 \$21 \$22 \$22 \$22 \$24	53 01 Jul 2024 56 01 Jul 2024 57-1.8 01 Jul 2024 58 01 Jul 2024 58 01 Jul 2024 510 01 Jul 2024 511 01 Jul 2024 515 01 Jul 2024 516 01 Jul 2024 517 01 Jul 2024 519 01 Jul 2024 519 01 Jul 2024 520 01 Jul 2024 521 01 Jul 2024 521 01 Jul 2024 522 01 Jul 2024 523 01 Jul 2024 524 01 Jul 2024	\$1-0.5 01 jul 2024 Soil \$3 0.1 jul 2024 Soil \$5 0.1 jul 2024 Soil \$5 0.1 jul 2024 Soil \$7.1.8 0.1 jul 2024 Soil \$8 0.1 jul 2024 Soil \$10 0.1 jul 2024 Soil \$11 0.1 jul 2024 Soil \$13 0.1 jul 2024 Soil \$14 0.1 jul 2024 Soil \$15 0.1 jul 2024 Soil \$17.1 0.1 jul 2024 Soil \$17 0.1 jul 2024 Soil \$17.1 0.1 jul 2024 Soil \$17.2 0.1 jul 2024 Soil \$21 0.1 jul 2024 Soil \$22 0.1 jul 2024 Soil \$22 0.1 jul 2024 Soil \$22 0.1 jul 2024 Soil \$23 0.1 jul 2024 Soil \$24 0.1 jul 2024 Soil	\$1-0.5 01 Jul 2024 Soil <00	\$1-0.5 01 Jul 2024 Soil <th>\$1-0.5 01 Jul 2024 Soil <th>\$1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20</th> <20</th> <20</th> <20</th> <20</th> <20	\$1-0.5 01 Jul 2024 Soil <th>\$1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20</th> <20</th> <20</th> <20</th> <20	\$1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20</th> <20</th> <20</th> <20	S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20</th> <20</th> <20	S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20</th> <20	S1-0.5 01 hul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20</th> <20	S1-0.5 01 Jul 2024 Soil <th>S1-0.5 01 Jul 2024 Soil <20</th> <20	S1-0.5 01 Jul 2024 Soil <20	S1-0.5 D1 Jul 2024 Soil <20	S1-0.5 01 Jul 2024 Soil <20

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	FOI
2024 Excerted Natural Material (Absolute Max)	EQL NSW 2014 Excavated Natural Material (Max Average)

Lab Report Number	Field ID	Date	Matrix Type																				
1114214	S1-0.5	01 Jul 2024	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	\$3	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S6	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	\$7-1.8	01 Jul 2024	Soil	< 0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S8	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S10	01 Jul 2024	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	\$11	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S13	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S15	01 Jul 2024	Soil	< 0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	\$16	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S17	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S17-1.8	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S19	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S20	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S21	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S22	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S23	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
1114214	S24	01 Jul 2024	Soil	< 0.5	< 0.5	<0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5	< 0.5
Statistics																							
Maximum Concentration	n			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	<0.5	<0.5



web: w	Curofins.com.au	ABN: 50 0 Melbourn 6 Montere Dandenon VIC 3175 +61 3 856	05 085 5: e y Road g South 4 5000 §1	21 Geelong	n Street	Sydney 179 Magowar Roa Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra ad Unit 1,2 Dacre Street Mitchell ACT 2911	Murar QLD T: +61 NATA#	Smallwoo rie 4172 7 3902	4600	Mayfield NSW 23	t Drive I West 804 968 8448 1261	3		05 015 anksia F ool 6 253 444 2377	Road	- A P 4 V V + N	Eurofins BN: 47 0 Perth Pro 6-48 Ban Velshpoo VA 6106 61 8 625 IATA# 2554	09 120 5 Micro Iksia Roa I 3 4444 61	49	NZBN: Auckla 35 O'R Penros Aucklar	942904602 Ind orke Road e, nd 1061 526 4551	24954 Aucklan Unit C1/4	25 0568	Christchurch	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
	ompany Name: Idress:		nviron										Or Re	der N port : one:	o.:	111 130	4214 0 034				Du Pri	ceived: e: ority: ntact Na		Jul 10, 2 5 Day	024 3:36 PM 2024 s Chiomey	
Pr Pr	oject Name: oject ID:	DSI-EILEEN s00360	O'COI	NNOR																Eurofi	ins Ana	alytical	Service	es Manag	er : Adam Bat	eup
				le Detail				Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH							
	bourne Laborato				54									X												
	ney Laboratory		51 Site	# 18217				Х	~	Х	X	X	~		X	Х	X	X	X							
No	ernal Laboratory Sample ID	/ Sample Dat		ampling Time	N	latrix	LAB ID		X				X													
1	S1-0.5	Jul 01, 2024			Soil	ç	24-JI0008861								x	Х	-									
2	S3	Jul 01, 2024			Soil		24-JI0008862								X	X										
3	S6	Jul 01, 2024			Soil		24-JI0008863						1		Х	Х										
4	S8	Jul 01, 2024			Soil		24-JI0008864								Х	Х										
5	S11	Jul 01, 2024			Soil		24-JI0008865								Х	Х										
6	S17	Jul 01, 2024			Soil		24-JI0008866								Х	Х										
7	S17-1.8	Jul 01, 2024			Soil		24-JI0008867								Х	Х										
8	S19	Jul 01, 2024			Soil		24-JI0008868								Х	Х										
9	S20	Jul 01, 2024			Soil		24-JI0008869								Х	Х										
10	S21	Jul 01, 2024			Soil	S	24-JI0008870								Х	Х										
11	QA1	Jul 01, 2024			Soil		24-JI0008871								Х		Х									
12	TS1	Jul 01, 2024			Trip S (liquic		24-JI0008872												х							

•	Aurofin		Eurofins Enviro ABN: 50 005 085 5		g Australia Pty Lt	d							Eurofi ABN: 91		L Pty L 1 9 898			5 ProMic 109 120 54		Eurofins Envir		sting NZ I	_td	
web: wv	ww.eurofins.com.au		Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong	Girraween NSW 2145	Canberra ad Unit 1,2 Dacre Stree Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Murar QLD T: +61 NATA:	Smallwoo rie	od Place 4600	Mayfield NSW 23	t Drive West 604 968 8448 1261	3	Perth 46-48 B Welshpi WA 610 +61 8 6 NATA# 2 Site# 23	anksia F ool 6 253 444 2377	Road	- P0 46 W +6 N	erth Pro	Micro Iksia Road I 3 4444 61		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland Unit C1/4 F Mount Well Auckland 1 +64 9 525 IANZ# 130	Pacific Rise, lington, 061 0568	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
Co Ad	mpany Name: dress:	Raw 3/17 Byror NSW	Tasman Way	mental P/L								Re	der N eport = none: ix:			4214 0 034	153			Received: Due: Priority: Contact N		Jul 10, 2 5 Day	24 3:36 PM 2024 5 Chiomey	
	oject Name: oject ID:	DSI-E s0036	EILEEN O'COI 60	NNOR															Eurofi	ns Analytical	Services	Manag	er : Adam Bat	eup
			Samp	le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melb	ourne Laborate	ory - N	IATA # 1261 \$	Site # 1254									Х											
Sydr	ney Laboratory	- NAT	A # 1261 Site	# 18217			х		Х	х	х			х	х	х	Х	Х						
13	TB1		1, 2024	(li	quid)	\$24-JI0008873											x							
14	S7-1.8		1, 2024			S24-JI0008874		<u> </u>					<u> </u>	X	Х		<u> </u>							
	SW1		1, 2024			S24-JI0008875		X		X	X	Х	X			Х		\mid						
16	WQA1		1, 2024			S24-JI0008876		X		Х	Х	Х	X			Х								
	S17-A		1, 2024	S		S24-JI0008877	Х																	
18	S19A		1, 2024	S		S24-JI0008878	X																	
19	S20A		1, 2024			S24-JI0008879	Х																	
20	SW2		1, 2024			S24-JI0008880		X		X	Х	Х	X			Х								
	S10		1, 2024			S24-JI0008881								Х	Х									
	S13		1, 2024	S		S24-JI0008882	<u> </u>			<u> </u>				X	X			$\left - \right $						
	S15		1, 2024			S24-JI0008883	<u> </u>			<u> </u>				X	X			$\left - \right $						
	S16		1, 2024	S		S24-JI0008884								X	X			\vdash						
	S22		1, 2024	S		S24-JI0008885		-			-			X	X									
26	S23		1, 2024	S		S24-JI0008886								X	X									
27	S24	Jul 0	1, 2024	S	011 8	S24-JI0008887								Х	Х									

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web: w	ww.eurofins.com.au EnviroSales@eurofins.c		Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254		Girraween NSW 2145	Canberra ad Unit 1,2 Dacre Stree Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Murar QLD T: +61 NATA	Smallwoo rrie	od Place 4600	Mayfield NSW 23	at Drive 1 West 304 968 8448 1261	3	Perth 46-48 E Welshp WA 610 +61 8 6 NATA# Site# 23	ool)6 ;253 444 2377		2 \ \ 1	Perth Pro 46-48 Bar Welshpoo WA 6106 +61 8 625 NATA# 25 Site# 2554	nksia Road I 3 4444 61		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/	25 0568	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
Co Ac	ompany Name: Idress:	3/17 Byro	Earth Environ Tasman Way n Bay / 2481	mental P/L								Re	rder N eport none: ax:	#:		4214 0 034	4 153			Received: Due: Priority: Contact N	-	Jul 10, 2 5 Dav	024 3:36 PM 2024 s Chiomey	
	oject Name: oject ID:	DSI- s003	EILEEN O'CO 60	NNOR															Eurofi	ns Analytical	Service	es Manag	er : Adam Bat	eup
			Samp	le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Mell	bourne Laborat	ory - I	NATA # 1261	Site # 1254									Х											
Syd	ney Laboratory	- NA1	TA # 1261 Site	e # 18217			Х		Х	Х	Х			Х	Х	X	Х	х						
28	QA2	Jul C	01, 2024	So	bil S	24-JI0008888								х		X								
29	TS2	Jul C	01, 2024		ip Spike S quid)	24-JI0008889												х						
30	TB2	Jul C	01, 2024		ip Blank S quid)	24-JI0008890											х							
31	TSW	Jul C	01, 2024		ip Spike S quid)	24-JI0008891												х						
32	TBW	Jul C	01, 2024		ip Blank S quid)	24-JI0008892											х							
33	RINSE-S	Jul C	01, 2024	W	ater S	24-JI0008893										X								
34	RINSE-W	Jul C	01, 2024	W	ater S	24-JI0008894		Х		х	х	Х	х			Х								
35	S1-1.8	Jul C	01, 2024	So	bil S	24-JI0008895			х															
36	S2	Jul C	01, 2024	So	bil S	24-JI0008896			х					1										
37	S4	Jul C	01, 2024	So	pil S	24-JI0008897			х															
38	S7		01, 2024	So		24-JI0008898			Х															
39	S9	Jul C	01, 2024	So		24-JI0008899			Х				1	1										
40	S5	Jul C	01, 2024	So	bil S	24-JI0008900			Х															

		Eurofins Envir	onment Testing	Australia Pty Lt	d							Eurofi	ns ARI	- Pty Lt	d E	urofins		o Pty Ltd	Eurofins Enviro	onment Tes	sting NZ L	_td	
🛟 eurofir	IS	ABN: 50 005 085 5	521									ABN: 91	05 015	9 898	AE	BN: 47 0	09 120 549		NZBN: 9429046024	4954			
web: www.eurofins.com.au email: EnviroSales@eurofins.c	com	Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254		Sydney eet 179 Magowar Ro Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra ad Unit 1,2 Dacre Stree Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Murai QLD T: +61 NATA	Smallwoo rrie	od Place 4600	Mayfield NSW 23 +61 2 4 NATA# 1	st Drive d West 304 968 844 1261	в	Perth 46-48 B Welshpo WA 610 +61 8 6 NATA# 2 Site# 23	ool 6 253 444 2377		46 W W +6	2748 Ban 2648 Ban 2618hpool 24 6106 21 8 625 2474# 256 254 2554	ksia Road 3 4444 61		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Unit C1/4 P Mount Well Auckland 1 +64 9 525 (IANZ# 1308	Pacific Rise, lington, 061 0568	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road. Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
Company Name: Address:		Earth Environ Tasman Way Bay 2481									Re	rder N eport a none: ix:		111 130	4214 0 034	153			Received: Due: Priority: Contact Na		Jul 10, 2 5 Day	24 3:36 PM 024 Chiomey	
Project Name: Project ID:	DSI-E s0036	EILEEN O'CO 60	NNOR															Eurofin	s Analytical S	Services	Manage	er : Adam Bat	eup
			le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melbourne Laborat	tory - N	NATA # 1261	Site # 1254									X											
Sydney Laboratory	-					X		X	Х	X			X	Х	X	X	Х						
41 S12		1, 2024	Soi		S24-JI0008901			X															
42 S14	-	1, 2024	Soi		S24-JI0008902			X															
43 S18	Jul 0	1, 2024	Soi	। १	24-JI0008903			X							_								
Test Counts						3	4	9	4	4	4	4	20	18	7	3	3						



Raw Earth Environmental Pty Ltd 3/17 Tasman Way Byron Bay NSW 2481

Attention:

Jacques Chiomey

Report Project name Project ID Received Date **1114214-S** DSI-EILEEN O'CONNOR s00360 Jul 03, 2024

Client Sample ID			S1-0.5	S3	S6	S8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008861	S24-JI0008862	S24-JI0008863	S24-JI0008864
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	74	111	108	120
Total Recoverable Hydrocarbons - 2013 NEPM Fra	actions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10*	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16*	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34*	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



NATA Accredited Accreditation Number 1261 Site Number 18217

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



Client Sample ID			S1-0.5	S3	S6	S8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008861	S24-JI0008862	S24-JI0008863	S24-JI0008864
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	71	65	93	80
p-Terphenyl-d14 (surr.)	1	%	54	70	85	89
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	< 10	< 10	< 10	< 10
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	5.5	5.8	7.2	5.9
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	< 5	< 5
Copper	5	mg/kg	< 5	< 5	< 5	< 5
Lead	5	mg/kg	< 5	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	< 5	< 5	< 5
Sample Properties		-				
% Moisture	1	%	8.1	14	11	9.9
Foreign Materials - ENM						
Initial Weight*	0.01	kg	9.3	11	11	12
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Glass*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Asphalt*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Stone*	0.1	%	0.1	< 0.1	< 0.1	< 0.1
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Clay lumps and other friable material*	0.1	%	100	100	100	100
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Plastic*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Bitumen*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paper*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Cloth*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paint*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Wood*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Vegetable matter*	0.05	%	< 0.05	0.27	< 0.05	< 0.05



Client Sample ID			S11	S17	S17-1.8	S19
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008865	S24-JI0008866	S24-JI0008867	S24-JI0008868
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
втех		1				
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	96	116	97	94
Total Recoverable Hydrocarbons - 2013 NEPM Frac	ctions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons	•					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10*	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16*	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34*	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons		-				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	72	67	80	112
p-Terphenyl-d14 (surr.)	1	%	73	67	88	92
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	12	< 10	12	< 10
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	6.2	8.3	7.4	8.0



Client Sample ID			S11	S17	S17-1.8	S19
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008865	S24-JI0008866	S24-JI0008867	S24-JI0008868
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	7.6	7.8	4.6	7.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	25	32	26	43
Copper	5	mg/kg	< 5	11	8.7	17
Lead	5	mg/kg	9.9	8.1	8.4	11
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	22	19	32
Zinc	5	mg/kg	< 5	19	18	27
Sample Properties						
% Moisture	1	%	13	13	17	12
Foreign Materials - ENM						
Initial Weight*	0.01	kg	12	10	9.6	12
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Glass*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Asphalt*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Stone*	0.1	%	2.3	84	0.5	25
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Clay lumps and other friable material*	0.1	%	98	16	99	75
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Plastic*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Bitumen*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paper*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Cloth*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paint*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Wood*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Vegetable matter*	0.05	%	0.08	< 0.05	0.05	< 0.05

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled			S20 Soil S24-JI0008869 Jul 01, 2024	S21 Soil S24-JI0008870 Jul 01, 2024	QA1 Soil S24-JI0008871 Jul 01, 2024	S7-1.8 Soil S24-JI0008874 Jul 01, 2024
Test/Reference	LOR	Unit				
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	105	109	107	75
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



Client Sample ID			S20	S21	QA1	S7-1.8
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008869	S24-JI0008870	S24-JI0008871	S24-JI0008874
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons	ł					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10*	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16*	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34*	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	113	64	77	67
p-Terphenyl-d14 (surr.)	1	%	102	68	86	64
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	< 10	< 10	-	10
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	7.6	5.1	-	6.3
Heavy Metals						
Arsenic	2	mg/kg	7.4	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	38	< 5	< 5	5.9
Copper	5	mg/kg	15	< 5	< 5	< 5
Lead	5	mg/kg	8.9	< 5	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	29	< 5	< 5	< 5
Zinc	5	mg/kg	35	< 5	< 5	< 5
Sample Properties						
% Moisture	1	%	17	9.4	12	11



Client Sample ID Sample Matrix Eurofins Sample No.			S20 Soil S24-J10008869	S21 Soil S24-JI0008870	QA1 Soil S24-JI0008871	S7-1.8 Soil S24-JI0008874
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Foreign Materials - ENM	•					
Initial Weight*	0.01	kg	11	11	-	10
Foreign Material - Type I		_				
Metal*	0.1	%	< 0.1	< 0.1	-	< 0.1
Glass*	0.1	%	< 0.1	< 0.1	-	< 0.1
Asphalt*	0.1	%	< 0.1	< 0.1	-	< 0.1
Stone*	0.1	%	50	< 0.1	-	48
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	-	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	-	< 0.1
Clay lumps and other friable material*	0.1	%	50	100	-	52
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	-	< 0.05
Plastic*	0.05	%	< 0.05	< 0.05	-	< 0.05
Bitumen*	0.05	%	< 0.05	< 0.05	-	< 0.05
Paper*	0.05	%	< 0.05	< 0.05	-	< 0.05
Cloth*	0.05	%	< 0.05	< 0.05	-	< 0.05
Paint*	0.05	%	< 0.05	< 0.05	-	< 0.05
Wood*	0.05	%	< 0.05	< 0.05	-	< 0.05
Vegetable matter*	0.05	%	< 0.05	< 0.05	-	< 0.05

Client Sample ID			S10	S13	S15	S16
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008881	S24-JI0008882	S24-JI0008883	S24-JI0008884
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	58	67	71	95
Total Recoverable Hydrocarbons - 2013 NEPM F	Fractions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10*	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16*	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34*	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100



Client Sample ID			S10	S13	S15	S16
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008881	S24-JI0008882	S24-JI0008883	S24-JI0008884
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit	our or, 2024	00101, 2024	04101, 2024	00101, 2024
Polycyclic Aromatic Hydrocarbons	LOK	Unit				
Benzo(a)pyrene TEQ (lower bound) *	0.5	ma/ka	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (nedium bound) *	0.5	mg/kg mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	64	69	72	70
p-Terphenyl-d14 (surr.)	1	%	64	57	71	58
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	17	13	86	< 10
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	5.2	6.2	5.5	6.3
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	2.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	7.3	< 5	9.1
Copper	5	mg/kg	< 5	< 5	< 5	< 5
Lead	5	mg/kg	< 5	5.5	< 5	5.2
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	8.3	< 5	8.1
Sample Properties	•					
% Moisture	1	%	13	14	11	10
Foreign Materials - ENM		•				
Initial Weight*	0.01	kg	6.9	6.7	10	7.4
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Glass*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Asphalt*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Stone*	0.1	%	< 0.1	0.3	< 0.1	0.2
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	< 0.1	< 0.1
Clay lumps and other friable material*	0.1	%	100	99	100	100



Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled			S10 Soil S24-JI0008881 Jul 01, 2024	S13 Soil S24-JI0008882 Jul 01, 2024	S15 Soil S24-JI0008883 Jul 01, 2024	S16 Soil S24-JI0008884 Jul 01, 2024
Test/Reference	LOR	Unit				
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Plastic*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Bitumen*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paper*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Cloth*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Paint*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Wood*	0.05	%	< 0.05	< 0.05	< 0.05	< 0.05
Vegetable matter*	0.05	%	0.42	0.35	< 0.05	0.08

Client Sample ID			S22	S23	S24	QA2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008885	S24-JI0008886	S24-JI0008887	S24-JI0008888
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
втех						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	62	98	64	68
Total Recoverable Hydrocarbons - 2013 NEPM	Fractions					
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	21	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10*	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16*	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34*	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5



Client Sample ID			S22	S23	S24	QA2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S24-JI0008885	S24-JI0008886	S24-JI0008887	S24-JI0008888
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	71	103	67	66
p-Terphenyl-d14 (surr.)	1	%	68	90	56	56
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	< 10	51	< 10	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	6.0	7.3	6.5	-
Heavy Metals	·					
Arsenic	2	mg/kg	< 2	2.8	6.4	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.3	60	18	< 5
Copper	5	mg/kg	< 5	32	< 5	< 5
Lead	5	mg/kg	< 5	5.7	9.6	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	66	< 5	< 5
Zinc	5	mg/kg	< 5	65	52	< 5
Sample Properties						
% Moisture	1	%	21	17	15	13
Foreign Materials - ENM						
Initial Weight*	0.01	kg	8.9	8.2	9.1	_
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	< 0.1	< 0.1	-
Glass*	0.1	%	< 0.1	< 0.1	< 0.1	-
Asphalt*	0.1	%	< 0.1	< 0.1	< 0.1	-
Stone*	0.1	%	< 0.1	53	11	-
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	< 0.1	-
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	< 0.1	-
Clay lumps and other friable material*	0.1	%	100	46	89	-
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	< 0.05	-
Plastic*	0.05	%	< 0.05	< 0.05	< 0.05	-
Bitumen*	0.05	%	< 0.05	< 0.05	< 0.05	-
Paper*	0.05	%	< 0.05	< 0.05	< 0.05	-
Cloth*	0.05	%	< 0.05	< 0.05	< 0.05	-
Paint*	0.05	%	< 0.05	< 0.05	< 0.05	-
Wood*	0.05	%	< 0.05	< 0.05	< 0.05	-
Vegetable matter*	0.05	%	< 0.05	0.65	< 0.05	-



Sample History

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

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

Description	Testing Site	Extracted	Holding Time
BTEX	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Jul 06, 2024	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Jul 06, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
ENM Exemption Suite - The excavated natural material order 2014 NSW EPA			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Sydney	Jul 06, 2024	7 Days
- Method: LTM-INO-4030 Conductivity			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	Jul 06, 2024	7 Days
- Method: LTM-GEN-7090 pH by ISE			
Foreign Material - Type I	Sydney	Jul 11, 2024	180 Days
- Method: RMS Method T276			
Foreign Material - Type II	Sydney	Jul 11, 2024	180 Days
- Method: RMS Method T276			
Foreign Material - Type III	Sydney	Jul 11, 2024	180 Days
- Method: RMS Method T276			
% Moisture	Sydney	Jul 03, 2024	14 Days
- Method: LTM-GEN-7080 Moisture			

				esting A	ustralia Pty Lto	ł							Eurofi	ns AR	L Pty L	td E	urofine	s ProMicro	Pty Ltd	Eurofins Enviro	onment Te	sting NZ I	_td	
	eurofin	ABN: 50 005											ABN: 91	05 015	9 898			009 120 549		NZBN: 942904602				
web: w	ww.eurofins.com.au EnviroSales@eurofins.co	6 Monterey Dandenong VIC 3175 +61 3 8564	Road 19/8 Lew South Grovedal VIC 3216	alan Street e 64 5000 261	Sydney t 179 Magowar Roa Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Canberra ad Unit 1,2 Dacre Stree Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Murar QLD T: +61 NATA	Smallwoo rie 4172 7 3902	od Place 4600	Mayfield NSW 23 +61 2 49 NATA# 1	at Drive West 304 968 844 1261	8	Perth 46-48 B Welshpo WA 610 +61 8 60 NATA# 2 Site# 23	ool 6 253 444 2377		46 W W +6	erth Pro 6-48 Bar Velshpoo VA 6106 61 8 625 IATA# 25 ite# 255	nksia Road bl 53 4444 561		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland Unit C1/4 F Mount Well Auckland 1 +64 9 525 IANZ# 130	Pacific Rise, lington, 1061 0568	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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		s	ample Deta	il			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melk	ourne Laborate	ory - NATA # 1	261 Site # 1	254									Х											
Syd	ney Laboratory	- NATA # 1261	Site # 182	7			Х		х	Х	Х			х	х	X	Х	х						
Exte	rnal Laboratory	/		_				Х				х												
No	Sample ID	Sample Date	e Sampling Time		Matrix	LAB ID																		
1	S1-0.5	Jul 01, 2024		Soil	s	24-JI0008861								Х	х									
2	S3	Jul 01, 2024		Soil	1	24-JI0008862								Х	Х									
3	S6	Jul 01, 2024		Soil	S	24-JI0008863								Х	Х									
4	S8	Jul 01, 2024		Soil	S	24-JI0008864								Х	Х									
5	S11	Jul 01, 2024		Soil	S	24-JI0008865								Х	Х									
6	S17	Jul 01, 2024		Soil	s	24-JI0008866								х	Х									
7	S17-1.8	Jul 01, 2024		Soil	s	24-JI0008867								Х	Х									
8	S19	Jul 01, 2024		Soil	s	24-JI0008868								х	х									
9	S20	Jul 01, 2024		Soil	s	24-JI0008869								х	х									
10	S21	Jul 01, 2024		Soil	s	24-JI0008870								х	х									
11	QA1	Jul 01, 2024		Soil	s	24-JI0008871								х		Х								
12	TS1	Jul 01, 2024		Trip (liqui		24-JI0008872												x						

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web: w	eurofin ww.eurofins.com.au inviroSales@eurofins.c	Melbourne Caliberral Caliberral 6 Monterey Road 19/8 Lewalan Street 179 Magowar Road Unit 1,2 Dacre Stre Dandenong South 19/8 Lewalan Street 179 Magowar Road Unit 1,2 Dacre Stre Girraween VIC 3175 VIC 3216 NSW 2145 ACT 2911 +61 3 8564 5000 +61 3 8564 5000 +61 2 9900 8400 +61 2 6113 8091 xom NATA# 1261 NATA# 1261 NATA# 1261 Site# 1254 Site# 25403 Site# 18217 Site# 25466				Road Unit 1,2 Dacre Stree Mitchell ACT 2911 00 +61 2 6113 8091 NATA# 1261	Brisbane Newcastle bet 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +61 7 3902 4600 +61 2 4968 8448 NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079				3	Perth 46-48 Ba Welshpo WA 6100 +61 8 62 NATA# 2 Site# 23	anksia F ool 6 253 444 2377	Road		erth Pro 6-48 Bar /elshpoo /A 6106	06 Auckland 1061 6253 4444 +64 9 526 4551 ≰ 2561 IANZ# 1327			Auckla d Unit C Mount Auckla	and (Focus) 1/4 Pacific Rise, Wellington, ind 1061 525 0568 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402	
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			Samp	ble Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melk	ourne Laborate	ory - NATA	# 1261	Site # 1254	Ļ								Х											
Syd	ey Laboratory	- NATA # 1	261 Site	e # 18217			Х		Х	Х	Х			х	Х	х	Х	Х						
13	TB1	Jul 01, 202	:4		rip Blank iquid)	S24-JI0008873											x							
14	S7-1.8	Jul 01, 202	4	S	oil	S24-JI0008874								Х	Х									
15	SW1	Jul 01, 202	4	V	Vater	S24-JI0008875		Х		Х	Х	Х	Х			Х								
16	WQA1	Jul 01, 202	4	V	Vater	S24-JI0008876		Х		Х	Х	Х	Х			Х								
17	S17-A	Jul 01, 202	4		oil	S24-JI0008877	Х																	
18	S19A	Jul 01, 202	4		oil	S24-JI0008878	Х																	
19	S20A	Jul 01, 202	4	s	oil	S24-JI0008879	Х																	
20	SW2	Jul 01, 202	4		Vater	S24-JI0008880		Х		Х	Х	х	Х			х								
21	S10	Jul 01, 202	4		oil	S24-JI0008881								Х	Х									
22	S13	Jul 01, 202	4		oil	S24-JI0008882								х	Х									
23	S15	Jul 01, 202	4		oil	S24-JI0008883								Х	Х									
24	S16	Jul 01, 202	4		oil	S24-JI0008884								Х	х									
25	S22	Jul 01, 202	4		oil	S24-JI0008885								Х	Х			\downarrow						
26	S23	Jul 01, 202	4	S	oil	S24-JI0008886								Х	Х									
27	S24	Jul 01, 202	4	S	oil	S24-JI0008887								Х	Х									

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	ww.eurofins.com.au EnviroSales@eurofins.c	Dand VIC 3 +61 3 com NATA	Dandenong South Grovedale Girraween Mitchell VIC 3175 VIC 3216 NSW 2145 ACT 2911 +61 3 8564 5000 +61 3 8564 5000 +61 2 9900 8400 +61 2 6113 8091				het 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +61 7 3902 4600 +61 2 4968 844E NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079						46-48 B Welshpo WA 610 +61 8 62 NATA# 2 Site# 23	ool 6 253 444 2377		N N H N	6-48 Ban /elshpool /A 6106 61 8 625 IATA# 256 ite# 2554	3 4444 61		35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pa Mount Wellin Auckland 100 +64 9 525 05 IANZ# 1308	gton, 61	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Roa Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
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			Samp	le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melb	ourne Laborat	tory - NAT	A # 1261 \$	Site # 1254									Х											
Sydı	ney Laboratory	/ - NATA #	1261 Site	e # 18217			Х		Х	Х	Х			Х	Х	X	Х	Х						
28	QA2	Jul 01, 20	024	S	oil	S24-JI0008888								Х		X								
29	TS2	Jul 01, 20	024	T (li	rip Spike quid)	S24-JI0008889												х						
30	TB2	Jul 01, 20	024		rip Blank quid)	S24-JI0008890											х							
31	TSW	Jul 01, 20	024		rip Spike quid)	S24-JI0008891												x						
32	TBW	Jul 01, 20	024		rip Blank quid)	S24-JI0008892											х							
33	RINSE-S	Jul 01, 20	024	W	/ater	S24-JI0008893										Х								
34	RINSE-W	Jul 01, 20	024	W	/ater	S24-JI0008894		Х		Х	Х	Х	Х			Х								
35	S1-1.8	Jul 01, 20	024	S	oil	S24-JI0008895			Х															
36	S2	Jul 01, 20		S	oil	S24-JI0008896			Х															
37	S4	Jul 01, 20	024	S	oil	S24-JI0008897			Х															
38	S7	Jul 01, 20	024	S	oil	S24-JI0008898			Х															
39	S9	Jul 01, 20	024	S	oil	S24-JI0008899			Х															
40	S5	Jul 01, 20	024	S	oil	S24-JI0008900			Х															

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web: www.eurofins.com.au email: EnviroSales@eurofins.cc	6 Mor 6 Mor Dande VIC 3 +61 3 om NATA:	Melbourne Geelong		Girraween NSW 2145	Canberra ad Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Muran QLD T: +61 NATA#	Smallwoo rie 4172 7 3902 # 1261	od Place 4600	Mayfield NSW 23	at Drive West 304 968 8448 1261		ABN: 91 Perth 46-48 B Welshpo WA 610 +61 8 62 NATA# 2 Site# 23	anksia F ool 6 253 444 2377	Road		erth Pro	ksia Road 3 4444 51		NZBN: 942904602 Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Fo Unit C1/4 Pac Mount Welling Auckland 106	Auckland (Focus) Christchurch Unit C1/4 Pacific Rise, 43 Detroit Drive Mount Wellington, Rolleston, Auckland 1061 Christchurch 7675 +64 9 525 0568 +64 3 343 5201		Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402
Address:	Raw Earth 3/17 Tasn Byron Bay NSW 248	h Environ nan Way y 1	mental P/L								Re	der N port i	o.:		4214 0 034				Received: Due: Priority: Contact Na	Ju 5	l 10, 2 Day	24 3:36 PM 2024 Chiomey	
Project Name: Project ID:	DSI-EILEI s00360	EN O'CO	NNOR															Eurofir	ns Analytical	Services N	lanag	er : Adam Bat	eup
			le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melbourne Laborato						X		X	×	×		X	X	N N	X	N N	X						
Sydney Laboratory41\$12	Jul 01, 20	1	# 18217 Soi		24-JI0008901	Х		X X	X	X			X	X	X	X	Х						
41 <u>312</u> 42 S14	Jul 01, 20		Soi		24-JI0008901			X						1									
43 S18	Jul 01, 20		Soi		24-JI0008903			X				1		1									
Test Counts	,	1	1.0.0.	1-		3	4	9	4	4	4	4	20	18	7	3	3						



Internal Quality Control Review and Glossary

General

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

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

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

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

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

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

Terms

Unite

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

- 1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- 3. pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- 4. Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- 5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.



Quality Control Results

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Method Blank						
BTEX						
Benzene	mg/kg	< 0.1		0.1	Pass	
Toluene	mg/kg	< 0.1		0.1	Pass	
Ethylbenzene	mg/kg	< 0.1		0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2		0.2	Pass	
o-Xylene	mg/kg	< 0.1		0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3		0.3	Pass	
Method Blank						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	5					
Naphthalene	mg/kg	< 0.5		0.5	Pass	
Method Blank			· · ·	•	•	
Total Recoverable Hydrocarbons						
TRH C6-C9	mg/kg	< 20		20	Pass	
TRH C10-C14	mg/kg	< 20		20	Pass	
TRH C15-C28	mg/kg	< 50		50	Pass	
TRH C29-C36	mg/kg	< 50		50	Pass	
TRH C6-C10*	mg/kg	< 20		20	Pass	
TRH >C10-C16*	mg/kg	< 50		50	Pass	
TRH >C16-C34*	mg/kg	< 100		100	Pass	
TRH >C34-C40	mg/kg	< 100		100	Pass	
Method Blank	iiig/iig	100		100	1 400	
Heavy Metals						
Arsenic	mg/kg	< 2		2	Pass	
Cadmium	mg/kg	< 0.4		0.4	Pass	
Chromium	mg/kg	< 5		5	Pass	
Copper	mg/kg	< 5		5	Pass	
Lead	mg/kg	< 5		5	Pass	
Mercury	mg/kg	< 0.1		0.1	Pass	
Nickel	mg/kg	< 5		5	Pass	
Zinc	mg/kg	< 5		5	Pass	
Method Blank	iiig/kg			5	1 835	
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10		10	Pass	
Method Blank	u3/cm			10	F 855	
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10		10	Pass	
Method Blank	u3/cm	< 10		10	F 855	
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	< 0.5		0.5	Pass	
Acenaphthylene	mg/kg	< 0.5		0.5	Pass	
Anthracene	-	< 0.5		0.5	Pass	
	mg/kg					
Benz(a)anthracene Benzo(a)pyrene	mg/kg	< 0.5		0.5	Pass	
	mg/kg	< 0.5		0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5		0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5		0.5	Pass	
Chrysene	mg/kg	< 0.5		0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5		0.5	Pass	
Fluoranthene	mg/kg	< 0.5		0.5	Pass	
Fluorene	mg/kg	< 0.5		0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5		0.5	Pass	
Naphthalene	mg/kg	< 0.5		0.5	Pass	
Phenanthrene	mg/kg	< 0.5		0.5	Pass	



Test	Units	Result 1	A	Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	mg/kg	< 0.5		0.5	Pass	
LCS - % Recovery						
BTEX						
Benzene	%	86		70-130	Pass	
Toluene	%	91		70-130	Pass	
Ethylbenzene	%	81		70-130	Pass	
m&p-Xylenes	%	86		70-130	Pass	
o-Xylene	%	93		70-130	Pass	
Xylenes - Total*	%	88		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 2013 NEPM Fraction	S					
Naphthalene	%	88		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	88		70-130	Pass	
TRH C10-C14	%	82		70-130	Pass	
TRH C6-C10*	%	87		70-130	Pass	
TRH >C10-C16*	%	90		70-130	Pass	
LCS - % Recovery						
Heavy Metals						
Arsenic	%	98		80-120	Pass	
Cadmium	%	105		80-120	Pass	
Chromium	%	107		80-120	Pass	
Copper	%	110		80-120	Pass	
Lead	%	108		80-120	Pass	
Mercury	%	114		80-120	Pass	
Nickel	%	108		80-120	Pass	
Zinc	%	107		80-120	Pass	
LCS - % Recovery		1				
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	96		70-130	Pass	
LCS - % Recovery						
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	95		70-130	Pass	
LCS - % Recovery	,,,	00		10 100	1 400	
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	85		70-130	Pass	
Acenaphthylene	%	85		70-130	Pass	
Anthracene	%	89		70-130	Pass	
Benz(a)anthracene	%	77		70-130	Pass	
Benzo(a)pyrene	%	80		70-130	Pass	
Benzo(b&j)fluoranthene	%	83		70-130	Pass	
Benzo(g.h.i)perylene	%	81		70-130	Pass	
Benzo(k)fluoranthene	%	80		70-130	Pass	
Chrysene	%	79		70-130	Pass	
Dibenz(a.h)anthracene	%	78		70-130	Pass	
Fluoranthene	%	86		70-130	Pass	
Fluorene	%	84		70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	79		70-130	Pass	
Naphthalene	%	83		70-130	Pass	
Phenanthrene	%	84		70-130	Pass	
Pyrene	%	89		70-130	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery							-	•	
Total Recoverable Hydrocarbo	ons			Result 1					
TRH C10-C14	S24-JI0016961	NCP	%	73			70-130	Pass	
TRH >C10-C16*	S24-JI0016961	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S24-JI0008865	CP	%	85			75-125	Pass	
Cadmium	S24-JI0008865	CP	%	109			75-125	Pass	
Chromium	S24-JI0008865	CP	%	96			75-125	Pass	
Copper	S24-JI0008865	CP	%	92			75-125	Pass	
Lead	S24-JI0008865	CP	%	89			75-125	Pass	
Mercury	S24-JI0008865	CP	%	115			75-125	Pass	
Nickel	S24-JI0008865	СР	%	90			75-125	Pass	
Zinc	S24-JI0008865	CP	%	90			75-125	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S24-JI0008868	CP	%	103			70-130	Pass	
Toluene	S24-JI0008868	CP	%	85			70-130	Pass	
Ethylbenzene	S24-JI0008868	CP	%	81			70-130	Pass	
m&p-Xylenes	S24-JI0008868	CP	%	83			70-130	Pass	
o-Xylene	S24-JI0008868	CP	%	84			70-130	Pass	
Xylenes - Total*	S24-JI0008868	CP	%	83			70-130	Pass	
Spike - % Recovery	324-310008888	UF	/0	05			70-130	газэ	
	no 2012 NEDM Front	iona		Result 1				[
Total Recoverable Hydrocarbo	S24-JI0008868	CP	%	75			70-130	Deee	
Naphthalene	524-JIU006666		%	/5			70-130	Pass	
Spike - % Recovery				Devila					
Total Recoverable Hydrocarbo		0.0	0/	Result 1			70.400	Dese	
TRH C6-C9	S24-JI0008868	CP	%	80			70-130	Pass	
TRH C6-C10*	S24-JI0008868	CP	%	79			70-130	Pass	
Spike - % Recovery				D 114					
Polycyclic Aromatic Hydrocar		0.0		Result 1					
Acenaphthene	S24-JI0008874	CP	%	81			70-130	Pass	
Acenaphthylene	S24-JI0008874	CP	%	85			70-130	Pass	
Anthracene	S24-JI0008874	CP	%	77			70-130	Pass	
Benz(a)anthracene	S24-JI0008874	CP	%	74			70-130	Pass	
Benzo(a)pyrene	S24-JI0008874	CP	%	75			70-130	Pass	
Benzo(b&j)fluoranthene	S24-JI0008874	CP	%	72			70-130	Pass	
Benzo(g.h.i)perylene	S24-JI0008874	CP	%	74			70-130	Pass	
Benzo(k)fluoranthene	S24-JI0008874	CP	%	77			70-130	Pass	
Chrysene	S24-JI0008874	CP	%	78			70-130	Pass	
Dibenz(a.h)anthracene	S24-JI0008874	CP	%	70			70-130	Pass	
Fluoranthene	S24-JI0008874	CP	%	78			70-130	Pass	
Fluorene	S24-JI0008874	CP	%	78			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S24-JI0008874	CP	%	72			70-130	Pass	
Naphthalene	S24-JI0008874	CP	%	83			70-130	Pass	
Phenanthrene	S24-JI0008874	CP	%	79			70-130	Pass	
Pyrene	S24-JI0008874	СР	%	78			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
BTEX		,		Result 1	Result 2	RPD			
Benzene	S24-JI0008861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-JI0008861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-JI0008861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-JI0008861	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	



Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate					1 1		1		
BTEX				Result 1	Result 2	RPD			
o-Xylene	S24-JI0008861	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-JI0008861	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate	•			1			•		
Total Recoverable Hydrocarbons	2013 NEPM Fract	tions		Result 1	Result 2	RPD			
Naphthalene	S24-JI0008861	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-JI0008861	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10*	S24-JI0008861	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate		01	iiig/itg	1 120	1 20		0070	1 400	
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-JI0008864	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S24-JI0008864	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
	S24-JI0008864	CP		< 0.4	< 5	<1	30%	Pass	
Chromium Copper	S24-JI0008864	CP	mg/kg	< 5	< 5	<1	30%	Pass	
		CP	mg/kg			<1			
Lead	S24-JI0008864	CP	mg/kg	< 5	< 5	<1 <1	30%	Pass	
Mercury	S24-JI0008864		mg/kg	< 0.1	< 0.1		30%	Pass	
Nickel	S24-JI0008864	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S24-JI0008864	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate				_ _					
Sample Properties				Result 1	Result 2	RPD		_	
% Moisture	S24-JI0008864	CP	%	9.9	9.9	<1	30%	Pass	
Duplicate				1	I I				
ВТЕХ	T	1		Result 1	Result 2	RPD			
Benzene	S24-JI0008869	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-JI0008869	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S24-JI0008869	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S24-JI0008869	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-JI0008869	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-JI0008869	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate				T	1 1		1		
Total Recoverable Hydrocarbons	2013 NEPM Fract	tions		Result 1	Result 2	RPD			
Naphthalene	S24-JI0008869	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate								-	
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S24-JI0008871	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S24-JI0008871	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S24-JI0008871	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16*	S24-JI0008871	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34*	S24-JI0008871	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S24-JI0008871	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate				•					
Polycyclic Aromatic Hydrocarbon	S			Result 1	Result 2	RPD			
Acenaphthene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
		CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
	S24-JI0008871			+					
Anthracene	S24-JI0008871 S24-JI0008871		ma/ka	< 0.5	< 0.5	<1	30%	I FASS	
Anthracene Benz(a)anthracene	S24-JI0008871	СР	mg/kg ma/ka	< 0.5	< 0.5	<1 <1	<u>30%</u>	Pass Pass	
Anthracene Benz(a)anthracene Benzo(a)pyrene	S24-JI0008871 S24-JI0008871	CP CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene Benz(a)anthracene Benzo(a)pyrene Benzo(b&j)fluoranthene	S24-JI0008871 S24-JI0008871 S24-JI0008871	CP CP CP	mg/kg mg/kg	< 0.5 < 0.5	< 0.5 < 0.5	<1 <1	30% 30%	Pass Pass	
Anthracene Benz(a)anthracene Benzo(a)pyrene	S24-JI0008871 S24-JI0008871	CP CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	



Duplicate									
Polycyclic Aromatic Hydrocarbons	s			Result 1	Result 2	RPD			
Dibenz(a.h)anthracene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S24-JI0008871	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate	024 01000007 1	01	ing/kg	< 0.5	< 0.0		5070	1 435	
BTEX				Result 1	Result 2	RPD			
Benzene	S24-JI0008874	СР	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S24-JI0008874	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
		CP CP					30%		
Ethylbenzene	S24-JI0008874	CP CP	mg/kg	< 0.1	< 0.1	<1		Pass	
m&p-Xylenes	S24-JI0008874		mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S24-JI0008874	CP CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S24-JI0008874	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate				D 114					
Total Recoverable Hydrocarbons -	1			Result 1	Result 2	RPD			
Naphthalene	S24-JI0008874	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S24-JI0008874	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10*	S24-JI0008874	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate					1 1				
	1		1	Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	S24-JI0008883	СР	uS/cm	86	86	<1	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	S24-JI0008883	СР	pH Units	5.5	5.4	<1	30%	Pass	
Duplicate							1	_	
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-JI0008883	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S24-JI0008883	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S24-JI0008883	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S24-JI0008883	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S24-JI0008883	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S24-JI0008883	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S24-JI0008883	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S24-JI0008883	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S24-JI0008883	CP	%	11	10	3.4	30%	Pass	
Duplicate		2.							
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract									
at 25 °C as rec.)	S24-JI0008886	CP	uS/cm	51	76	39	30%	Fail	Q15



Comments

Analysis of E.Coli and Thermotolerant coliforms has been completed by Eurofins Food Testing Australia Pty Ltd, NATA Accreditation Number 20293, report reference AR-24-NV-012345-01.

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

Qualifier Codes/Comments

Code Description

 N01
 F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).

 N01
 Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.

 N04
 F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

 N07
 Please note: These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Q15 The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Nileshni Goundar	Analytical Services Manager
Maria Tian	Senior Analyst-Organic
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Sample Properties
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic
Ryan Phillips	Senior Analyst-Sample Properties
Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Raw Earth Environmental Pty Ltd 3/17 Tasman Way Byron Bay NSW 2481

Attention:

Jacques Chiomey

Report Project name Project ID Received Date **1114214-W** DSI-EILEEN O'CONNOR s00360 Jul 03, 2024

Client Sample ID			TS1	TB1	SW1	WQA1
Sample Matrix			Trip Spike (liquid)	Trip Blank (liquid)	Water	Water
Eurofins Sample No.			S24-JI0008872	S24-JI0008873	S24-JI0008875	S24-JI0008876
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
TRH C6-C10	1	%	79	-	-	-
Nitrate & Nitrite (as N)	0.05	mg/L	-	-	2.2	2.0
Nitrate (as N)	0.02	mg/L	-	-	2.2	2.0
Nitrite (as N)	0.02	mg/L	-	-	< 0.02	< 0.02
pH (at 25 °C)	0.1	pH Units	-	-	6.8	6.5
Phosphate total (as P)	0.01	mg/L	-	-	0.06	0.15
Total Kjeldahl Nitrogen (as N)	0.2	mg/L	-	-	1.5	0.9
Total Nitrogen (as N)*	0.2	mg/L	-	-	3.7	2.9
Total Recoverable Hydrocarbons						
Naphthalene	1	%	70	-	-	-
TRH C6-C9	1	%	84	-	-	-
BTEX						
Benzene	1	%	77	-	-	-
Ethylbenzene	1	%	73	-	-	-
m&p-Xylenes	1	%	73	-	-	-
o-Xylene	1	%	73	-	-	-
Toluene	1	%	72	-	-	-
Xylenes - Total	1	%	73	-	-	-
4-Bromofluorobenzene (surr.)	1	%	77	-	-	-
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	-	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	-	-	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	-	-	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	-	-	< 0.1	0.2
TRH C10-C36 (Total)	0.1	mg/L	-	-	< 0.1	0.2
TRH C6-C10*	0.02	mg/L	-	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	-	< 0.02	< 0.02	< 0.02
TRH >C10-C16*	0.05	mg/L	-	-	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)*N01	0.05	mg/L	-	-	< 0.05	< 0.05
TRH >C16-C34*	0.1	mg/L	-	-	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	-	-	< 0.1	0.2
TRH >C10-C40 (total)*	0.1	mg/L	-	-	< 0.1	0.2



NATA Accredited Accreditation Number 1261 Site Number 18217

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



Client Sample ID			TS1	TB1	SW1	WQA1
Sample Matrix			Trip Spike (liquid)	Trip Blank (liquid)	Water	Water
Eurofins Sample No.			S24-JI0008872	S24-JI0008873	S24-JI0008875	S24-JI0008876
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
•		1.1	our or, 2024	our 01, 2024	our 01, 2024	00101, 2024
Test/Reference	LOR	Unit				
BTEX	0.004			0.001	0.004	0.001
Benzene	0.001	mg/L	-	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	-	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	-	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	-	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	-	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	-	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	82	76	80
BTEX and Naphthalene						
Naphthalene ^{N02}	0.01	mg/L	-	< 0.01	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Frac		1				
Naphthalene ^{N02}	0.01	mg/L	-	-	< 0.01	< 0.01
Polycyclic Aromatic Hydrocarbons	1	1				
Acenaphthene	0.001	mg/L	-	-	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	-	-	< 0.001	< 0.001
Anthracene	0.001	mg/L	-	-	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	-	-	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	-	-	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	-	-	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	-	-	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	-	-	< 0.001	< 0.001
Chrysene	0.001	mg/L	-	-	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	-	-	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	-	-	< 0.001	< 0.001
Fluorene	0.001	mg/L	-	-	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	-	< 0.001	< 0.001
Naphthalene	0.001	mg/L	-	-	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	-	-	< 0.001	< 0.001
Pyrene	0.001	mg/L	-	-	< 0.001	< 0.001
Total PAH*	0.001	mg/L	-	-	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	-	-	56	53
p-Terphenyl-d14 (surr.)	1	%	-	-	92	93
Heavy Metals						
Arsenic	0.001	mg/L	-	-	< 0.001	< 0.001
Cadmium	0.0002	mg/L	-	-	< 0.0002	< 0.0002
Chromium	0.001	mg/L	-	-	< 0.001	< 0.001
Copper	0.001	mg/L	-	-	0.005	0.004
Lead	0.001	mg/L	-	-	< 0.001	< 0.001
Mercury	0.0001	mg/L	-	-	< 0.0001	< 0.0001
Nickel	0.001	mg/L	-	-	0.003	0.003
Zinc	0.005	mg/L	-	-	0.060	0.060
Pathogens						
E.coli (MPN)*	1	MPN/100mL	-	-	SEE ATTACHED	SEE ATTACHED
Thermotolerant Coliforms (MPN)	1	MPN/100mL	-	-	SEE ATTACHED	SEE ATTACHED



Client Sample ID			SW2	TS2	TB2	тѕѡ
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)	Trip Spike (liquid)
Eurofins Sample No.			S24-JI0008880	S24-JI0008889	S24-JI0008890	S24-JI0008891
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
TRU 00.040	4	0/		01		
TRH C6-C10	1	%	-	91	-	93
Nitrate & Nitrite (as N)	0.05	mg/L	< 0.05	-	-	-
Nitrate (as N)	0.02	mg/L	0.03	-	-	-
Nitrite (as N)	0.02	mg/L	< 0.02	-	-	-
pH (at 25 °C)	0.1	pH Units	6.2	-	-	-
Phosphate total (as P)	0.01	mg/L	0.38	-	-	-
Total Kjeldahl Nitrogen (as N)	0.2	mg/L	3.1	-	-	-
Total Nitrogen (as N)*	0.2	mg/L	3.1	-	-	-
Total Recoverable Hydrocarbons						
Naphthalene	1	%	-	92	-	90
TRH C6-C9	1	%	-	96	-	98
BTEX		1				
Benzene	1	%	-	98	-	100
Ethylbenzene	1	%	-	88	-	91
m&p-Xylenes	1	%	-	93	-	93
o-Xylene	1	%	-	93	-	93
Toluene	1	%	-	80	-	90
Xylenes - Total	1	%	-	93	-	93
4-Bromofluorobenzene (surr.)	1	%	-	77	-	75
Total Recoverable Hydrocarbons		,				
TRH C6-C9	0.02	mg/L	< 0.02	-	< 0.02	-
TRH C10-C14	0.05	mg/L	0.14	-	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-	-
TRH C10-C36 (Total)	0.1	mg/L	0.14	-	-	-
TRH C6-C10*	0.02	mg/L	< 0.02	-	< 0.02	-
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	-	< 0.02	-
TRH >C10-C16*	0.05	mg/L	0.15	-	-	-
TRH >C10-C16 less Naphthalene (F2)*N01	0.05	mg/L	0.15	-	-	-
TRH >C16-C34*	0.1	mg/L	< 0.1	-	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-	-
TRH >C10-C40 (total)*	0.1	mg/L	0.15	-	-	-
BTEX						
Benzene	0.001	mg/L	< 0.001	-	< 0.001	-
Toluene	0.001	mg/L	< 0.001	-	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002	-
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001	-
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	73	-	80	-
BTEX and Naphthalene	-		-			
Naphthalene ^{N02}	0.01	mg/L	-	_	< 0.01	_
Total Recoverable Hydrocarbons - 2013 NEPM Fract					0.01	
Naphthalene ^{N02}	0.01	mg/L	< 0.01	_	-	_



Client Sample ID			SW2	TS2	TB2	тѕѡ
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)	Trip Spike (liquid)
Eurofins Sample No.			S24-JI0008880	S24-JI0008889	S24-JI0008890	S24-JI0008891
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons		U.I.I.				
Acenaphthene	0.001	mg/L	< 0.001	_	-	_
Acenaphthylene	0.001	mg/L	< 0.001	-	-	-
Anthracene	0.001	mg/L	< 0.001	-	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-	-
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	-	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-	-
Chrysene	0.001	mg/L	< 0.001	-	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-	-
Fluorene	0.001	mg/L	< 0.001	-	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-	-
Pyrene	0.001	mg/L	< 0.001	-	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-	-
2-Fluorobiphenyl (surr.)	1	%	61	-	-	-
p-Terphenyl-d14 (surr.)	1	%	INT	-	-	-
Heavy Metals						
Arsenic	0.001	mg/L	< 0.001	-	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-	-
Chromium	0.001	mg/L	0.002	-	-	-
Copper	0.001	mg/L	0.003	-	-	-
Lead	0.001	mg/L	0.002	-	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-	-
Nickel	0.001	mg/L	0.001	-	-	-
Zinc	0.005	mg/L	0.030	-	-	-
Pathogens						
E.coli (MPN)*	1	MPN/100mL	SEE ATTACHED	-	-	_
Thermotolerant Coliforms (MPN)	1	MPN/100mL	SEE ATTACHED	-	-	-

Client Sample ID			TBW Trip Blank	RINSE-S	RINSE-W
Sample Matrix			(liquid)	Water	Water
Eurofins Sample No.			S24-JI0008892	S24-JI0008893	S24-JI0008894
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit			
Nitrate & Nitrite (as N)	0.05	mg/L	-	-	< 0.05
Nitrate (as N)	0.02	mg/L	-	-	< 0.02
Nitrite (as N)	0.02	mg/L	-	-	< 0.02
pH (at 25 °C)	0.1	pH Units	-	-	7.6
Phosphate total (as P)	0.01	mg/L	-	-	0.04
Total Kjeldahl Nitrogen (as N)	0.2	mg/L	-	-	< 0.2
Total Nitrogen (as N)*	0.2	mg/L	-	-	< 0.2



Client Sample ID			твw	RINSE-S	RINSE-W
Sample Matrix			Trip Blank (liquid)	Water	Water
Eurofins Sample No.			S24-JI0008892	S24-JI0008893	S24-JI0008894
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons	LOIN	Onit			
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.02	mg/L		< 0.02	0.07
TRH C15-C28	0.00	mg/L	_	< 0.03	0.07
TRH C29-C36	0.1	mg/L		0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L		0.1	0.17
TRH C6-C10*	0.02	mg/L	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	< 0.02	< 0.02
TRH >C10-C16*	0.02	mg/L	< 0.02	< 0.02	0.07
TRH >C10-C16 less Naphthalene (F2)* ^{N01}	0.05	mg/L	-	< 0.05	0.07
TRH >C10-C10 less Naphthalene (F2)	0.05	mg/L	-	< 0.05	0.07
TRH >C10-C34 TRH >C34-C40	0.1	mg/L	-	0.2	< 0.1
TRH >C10-C40 (total)*	0.1		_	0.2	0.17
BTEX	0.1	mg/L	-	0.2	0.17
	0.001	ma/l	< 0.001	< 0.001	< 0.001
Benzene	0.001	mg/L mg/L	< 0.001	< 0.001	< 0.001
Toluene Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001
	0.001				
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002
o-Xylene		mg/L	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	76	82	76
BTEX and Naphthalene Naphthalene ^{N02}	0.01		.0.04		
•	0.01	mg/L	< 0.01	-	-
Total Recoverable Hydrocarbons - 2013 NEPM F				0.04	0.01
Naphthalene ^{N02}	0.01	mg/L	-	< 0.01	< 0.01
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	-	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	-	< 0.001	< 0.001
Anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	-	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	-	< 0.001	< 0.001
Chrysene	0.001	mg/L	-	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	-	< 0.001	< 0.001
Fluorene	0.001	mg/L	-	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	-	< 0.001	< 0.001
Naphthalene	0.001	mg/L	-	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	-	< 0.001	< 0.001
Pyrene	0.001	mg/L	-	< 0.001	< 0.001
Total PAH*	0.001	mg/L	-	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	-	50	50
p-Terphenyl-d14 (surr.)	1	%	-	93	89



Client Sample ID			твw	RINSE-S	RINSE-W
Sample Matrix			Trip Blank (liquid)	Water	Water
Eurofins Sample No.			S24-JI0008892	S24-JI0008893	S24-JI0008894
Date Sampled			Jul 01, 2024	Jul 01, 2024	Jul 01, 2024
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	0.001	mg/L	-	< 0.001	< 0.001
Cadmium	0.0002	mg/L	-	< 0.0002	< 0.0002
Chromium	0.001	mg/L	-	< 0.001	< 0.001
Copper	0.001	mg/L	-	< 0.001	< 0.001
Lead	0.001	mg/L	-	< 0.001	< 0.001
Mercury	0.0001	mg/L	-	< 0.0001	< 0.0001
Nickel	0.001	mg/L	-	< 0.001	< 0.001
Zinc	0.005	mg/L	-	< 0.005	< 0.005
Pathogens					
E.coli (MPN)*	1	MPN/100mL	-	-	SEE ATTACHED
Thermotolerant Coliforms (MPN)	1	MPN/100mL	-	-	SEE ATTACHED



Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Melbourne	Jul 08, 2024	28 Days
- Method: LTM-INO-4450 Determination of Nitrogen Species by Discrete Analyser			
Nitrate (as N)	Melbourne	Jul 08, 2024	28 Days
- Method: LTM-INO-4450 Determination of Nitrogen Species by Discrete Analyser			
Nitrite (as N)	Melbourne	Jul 08, 2024	2 Days
- Method: LTM-INO-4450 Nitrogens by Discrete Analyser			
Total Kjeldahl Nitrogen (as N)	Melbourne	Jul 08, 2024	28 Days
- Method: APHA 4500-Norg B,D Total Kjeldahl Nitrogen by FIA			
pH (at 25 °C)	Sydney	Jul 10, 2024	6 Hours
- Method: LTM-GEN-7090 pH in water by ISE			
Phosphate total (as P)	Sydney	Jul 10, 2024	28 Days
- Method: E052 Total Phosphate (as P)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jul 10, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Jul 03, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 03, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jul 03, 2024	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 10, 2024	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Jul 10, 2024	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Jul 10, 2024	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

			invironment Te	sting Aus	tralia Pty Ltd								Eurofi	ns ARL	- Pty Lt	d E	urofins	s ProMicro	Pty Ltd	Eurofins Enviro	onment Testi	ng NZ I	_td	
	eurofin	ABN: 50 005			ydney	Canberra							ABN: 91	05 0159	9 898			009 120 549		NZBN: 942904602				
web: w	ww.eurofins.com.au EnviroSales@eurofins.co	6 Monterey F Dandenong S VIC 3175 +61 3 8564 5	South Grovedale VIC 3216 000 +61 3 856 NATA# 126	19/8 Lewalan Street 179 Magowar Road Unit 1,2 Dacre Street 1/2 Grovedale Mitchell Mitchell Mit Grovedale Girraween Mitchell Mit Mitchell Mitchellit Mitchell Mitch			Brisbane Newcastle bet 1/2 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +61 7 3902 4600 +61 2 4968 8448 NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079			Perth 46-48 Bi Welshpo WA 6100 +61 8 62 NATA# 2 Site# 23	iol 5 253 444 377		46 W W +6 N/	erth Pro 6-48 Ban /elshpool /A 6106 61 8 625 ATA# 256 ite# 2554	nksia Road I i3 4444 61		Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Fo Unit C1/4 Pac Mount Welling Auckland 106 +64 9 525 056 IANZ# 1308	fic Rise, ton,	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402			
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	oject Name: oject ID:	DSI-EILEEN C s00360	CONNOR															E	Eurofii	ns Analytical S	Services N	lanag	er : Adam Bat	eup
		Si	ample Detai	I			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melk	ourne Laborate	ory - NATA # 1	261 Site # 12	254									Х											
Syd	ney Laboratory	- NATA # 1261	Site # 1821	7			Х		х	Х	Х			х	Х	х	Х	Х						
Exte	rnal Laboratory	<u>y</u>						Х				Х												
No	Sample ID	Sample Date	Sampling Time	Ма	atrix	LAB ID																		
1	S1-0.5	Jul 01, 2024		Soil	S	24-JI0008861								Х	х									
2	S3	Jul 01, 2024		Soil		24-JI0008862							<u> </u>	Х	Х									
3	S6	Jul 01, 2024		Soil	S	24-JI0008863								Х	Х									
4	S8	Jul 01, 2024		Soil	S	24-JI0008864								х	Х									
5	S11	Jul 01, 2024		Soil		24-JI0008865							<u> </u>	Х	Х									
6	S17	Jul 01, 2024		Soil	S	24-JI0008866								Х	Х									
7	S17-1.8	Jul 01, 2024		Soil	S	24-JI0008867								Х	Х									
8	S19	Jul 01, 2024		Soil	S	24-JI0008868								х	Х									
9	S20	Jul 01, 2024		Soil	S	24-JI0008869								х	Х									
10	S21	Jul 01, 2024		Soil	S	24-JI0008870								х	Х									
11	QA1	Jul 01, 2024		Soil	S	24-JI0008871								х		х								
12	TS1	Jul 01, 2024		Trip Sp (liquid)	pike S2	24-JI0008872												x						

•••	ourofin		vironment Testing	y Australia Pty Lt	d							Eurofir ABN: 91		- Pty Lt 9 898			s ProMicr		Eurofins Envir NZBN: 94290460	onment Testing N 24954	Z Ltd	
web: wv	ww.eurofins.com.au	6 Monterey Roa Dandenong Sou VIC 3175 +61 3 8564 5000	6 Monterey Road 19/8 Lewalan Street 179 Magowar Road Unit 1,2 Dacre Street Dandenong South Grovedale Girraween Mitchell VIC 3175 VIC 3216 NSW 2145 ACT 2911 +61 3 8564 5000 +61 2 9900 8400 +61 2 6113 8091 NATA# 1261 NATA# 1261 NATA# 1261			Brisbane Newcastle bet 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +617 3902 4600 T: +617 73902 4600 +61 2 4968 8448 NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079				Perth 46-48 Ba Welshpo WA 6106 +61 8 62 NATA# 2 Site# 23	anksia R ol 5 53 4444 377	Road	Pe 46 W/ +6 N/	Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554			Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus)	Christchurch e, 43 Detroit Drive Rolleston, Christchurch 7679 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa, 5 Tauranga 3112 +64 9 525 0568 IANZ# 1402		
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		San	nple Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH					
Melb	ourne Laborate	ory - NATA # 126	1 Site # 1254									Х										
Sydı	ney Laboratory	- NATA # 1261 S	ite # 18217			Х		Х	Х	Х			Х	Х	Х	Х	х					
13	TB1	Jul 01, 2024		p Blank s quid)	S24-JI0008873											х						
14	S7-1.8	Jul 01, 2024	Sc	oil s	S24-JI0008874								Х	Х								
15	SW1	Jul 01, 2024	Wa	ater	S24-JI0008875		Х		Х	Х	Х	Х			Х							
16	WQA1	Jul 01, 2024	Wa	ater	S24-JI0008876		Х		х	Х	Х	Х			Х							
17	S17-A	Jul 01, 2024	Sc	oil s	S24-JI0008877	х																
18	S19A	Jul 01, 2024	Sc		S24-JI0008878	Х																
19	S20A	Jul 01, 2024	Sc	oil s	S24-JI0008879	Х																
20	SW2	Jul 01, 2024	Wa	ater	S24-JI0008880		Х		х	Х	х	Х			х							
21	S10	Jul 01, 2024	Sc	oil :	S24-JI0008881								Х	Х								
22	S13	Jul 01, 2024	Sc	oil (S24-JI0008882								Х	Х								
23	S15	Jul 01, 2024	Sc	oil s	S24-JI0008883								Х	Х								
24	S16	Jul 01, 2024	Sc		S24-JI0008884								Х	Х								
25	S22	Jul 01, 2024	Sc		S24-JI0008885								Х	Х								
26	S23	Jul 01, 2024	Sc	oil	S24-JI0008886								Х	Х								

	6 Monterey Road 19/8 Lewalan Street 179 Magowar Road Unit 1,2				Canberra	acre Street 1/21 Smallwood Place 1/2 Frost Drive				ABN: 91 05 0159 898 Perth 46-48 Banksia Road			ABN: 47 009 120 549 Perth ProMicro 46-48 Banksia Road			Auckland Auckland (Focus) Christchurch Tauranga					Tauranga			
	ww.eurofins.com.au EnviroSales@eurofins.c	Dand VIC 3 +61 3 com NATA	Dandenong South Grovedale Girraween Mitchell VIC 3175 VIC 3216 NSW 2145 ACT 2911 +61 3 8564 5000 +61 3 8564 5000 +61 2 9900 8400 +61 2 6113 8091			tit //21 Smallwood Place //2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +61 7 3902 4600 +61 2 4968 8448 NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079				46-48 B Welshpo WA 610 +61 8 62 NATA# 2 Site# 23	ool 6 253 444 2377		W W +6 N	6-48 Ban /elshpoo /A 6106 61 8 625 IATA# 25 ite# 2554	I 3 4444 61		35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	I Unit C1/4 Pa Mount Wellir Auckland 10 +64 9 525 0 IANZ# 1308	gton, 61	, 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Roa Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402			
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			Samp	le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melb	ourne Laborat	ory - NAT	A # 1261 \$	Site # 1254									Х											
Sydı	ney Laboratory	- NATA #	1261 Site	e # 18217			Х		Х	Х	Х			Х	Х	Х	Х	x						
28	QA2	Jul 01, 20	024	S	oil	S24-JI0008888								Х		Х								
29	TS2	Jul 01, 20	024	Т (I	rip Spike quid)	S24-JI0008889												х						
30	TB2	Jul 01, 20	024		rip Blank quid)	S24-JI0008890											х							
31	TSW	Jul 01, 20	024		rip Spike quid)	S24-JI0008891												x						
32	TBW	Jul 01, 20	024		rip Blank quid)	S24-JI0008892											х							
33	RINSE-S	Jul 01, 20	024	V	/ater	S24-JI0008893										Х								
34	RINSE-W	Jul 01, 20	024	V	/ater	S24-JI0008894		Х		Х	Х	Х	Х			Х								
35	S1-1.8	Jul 01, 20	024	S	oil	S24-JI0008895			Х															
36	S2	Jul 01, 20		S	oil	S24-JI0008896			Х															
37	S4	Jul 01, 20	024	S	oil	S24-JI0008897			Х															
38	S7	Jul 01, 20	024	S	oil	S24-JI0008898			Х															
39	S9	Jul 01, 20	024	S	oil	S24-JI0008899			Х															
40	S5	Jul 01, 20		S	oil	S24-JI0008900			Х															

			nment Testing A	Australia Pty Ltd										Pty Lt					Eurofins Enviro		J NZ LI	td	
🔅 eurofin	6 Mont	terey Road	Geelong 19/8 Lewalan Stree		Canberra Id Unit 1,2 Dacre Street		mallwoo	d Place		t Drive	i	ABN: 91 Perth 46-48 B	anksia F		Pe 46	erth Prol 6-48 Ban	ksia Road		NZBN: 942904602 Auckland 35 O'Rorke Road	Auckland (Foci Unit C1/4 Pacific	Rise,	Christchurch 43 Detroit Drive	Tauranga 1277 Cameron Road,
web: www.eurofins.com.au email: EnviroSales@eurofins.co	VIC 31 +61 3 8	75 8564 5000 1261	Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	NATA#	4172 7 3902 ≰ 1261	4600	Mayfield NSW 23 +61 2 49 NATA# 1 Site# 25	04 968 8448 261	3 . I	Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370		W. +6 N/	Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554			Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Mount Wellingto Auckland 1061 +64 9 525 0568 IANZ# 1308	n,	Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402	
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		Sampl	e Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melbourne Laborato											⊢ '	X											
Sydney Laboratory					24 110008004	Х		X X	X	Х	'		X	X	X	Х	X						
41 S12 42 S14	Jul 01, 202 Jul 01, 202		Soil Soil		24-JI0008901 24-JI0008902			X			<u> </u>												
43 S18	Jul 01, 202		Soil		24-JI0008902 24-JI0008903			X															
Test Counts	100101,202		1001	10		3	4	9	4	4	4	4	20	18	7	3	3						



Internal Quality Control Review and Glossary

General

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

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

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

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

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

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

Terms

I Inite

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

QC - Acceptance Criteria

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

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

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

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

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

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

QC Data General Comments

- 1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- 2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
- 3. pH and Free Chlorine analysed in the laboratory Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- 4. Recovery Data (Spikes & Surrogates) where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
- 5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
- 6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data



Quality Control Results

Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank					
Nitrate & Nitrite (as N)	mg/L	< 0.05	0.05	Pass	
Nitrate (as N)	mg/L	< 0.02	0.02	Pass	
Nitrite (as N)	mg/L	< 0.02	0.02	Pass	
Phosphate total (as P)	mg/L	< 0.01	0.01	Pass	
Total Kjeldahl Nitrogen (as N)	mg/L	< 0.2	0.2	Pass	
Method Blank				_	
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/L	< 0.001	0.001	Pass	
Acenaphthylene	mg/L	< 0.001	0.001	Pass	
Anthracene	mg/L	< 0.001	0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001	0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001	0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001	0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001	0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001	0.001	Pass	
Chrysene	mg/L	< 0.001	0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001	0.001	Pass	
Fluoranthene	mg/L	< 0.001	0.001	Pass	
Fluorene	mg/L	< 0.001	0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001	0.001	Pass	
Naphthalene	mg/L	< 0.001	0.001	Pass	
Phenanthrene	mg/L	< 0.001	0.001	Pass	
Pyrene	mg/L	< 0.001	0.001	Pass	
Method Blank					
Total Recoverable Hydrocarbons					
TRH C10-C14	mg/L	< 0.05	0.05	Pass	
TRH C15-C28	mg/L	< 0.1	0.1	Pass	
TRH C29-C36	mg/L	< 0.1	0.1	Pass	
TRH >C10-C16*	mg/L	< 0.05	0.05	Pass	
TRH >C16-C34*	mg/L	< 0.1	0.1	Pass	
TRH >C34-C40	mg/L	< 0.1	0.1	Pass	
Method Blank					
Total Recoverable Hydrocarbons					
TRH C10-C14	mg/L	< 0.05	0.05	Pass	
TRH C15-C28	mg/L	< 0.1	0.1	Pass	
TRH C29-C36	mg/L	< 0.1	0.1	Pass	
TRH >C10-C16*	mg/L	< 0.05	0.05	Pass	
TRH >C16-C34*	mg/L	< 0.1	0.1	Pass	
TRH >C34-C40	mg/L	< 0.1	0.1	Pass	
Method Blank					
Total Recoverable Hydrocarbons					
TRH C6-C9	mg/L	< 0.02	0.02	Pass	
TRH C6-C10*	mg/L	< 0.02	0.02	Pass	
Method Blank					
BTEX					
Benzene	mg/L	< 0.001	0.001	Pass	
Toluene	mg/L	< 0.001	0.001	Pass	
Ethylbenzene	mg/L	< 0.001	0.001	Pass	
m&p-Xylenes	mg/L	< 0.002	0.002	Pass	
o-Xylene	mg/L	< 0.001	0.001	Pass	
Xylenes - Total*	mg/L	< 0.003	0.003	Pass	



Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank		• •			
BTEX and Naphthalene					
Naphthalene	mg/L	< 0.01	0.01	Pass	
Method Blank					
Heavy Metals					
Arsenic	mg/L	< 0.001	0.001	Pass	
Cadmium	mg/L	< 0.0002	0.0002	Pass	
Chromium	mg/L	< 0.001	0.001	Pass	
Copper	mg/L	< 0.001	0.001	Pass	
Lead	mg/L	< 0.001	0.001	Pass	
Mercury	mg/L	< 0.0001	0.0001	Pass	
Nickel	mg/L	< 0.001	0.001	Pass	
Zinc	mg/L	< 0.005	0.005	Pass	
LCS - % Recovery					
Nitrate & Nitrite (as N)	%	102	70-130	Pass	
Nitrite (as N)	%	95	70-130	Pass	
Phosphate total (as P)	%	112	70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	97	70-130	Pass	
LCS - % Recovery					
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	%	101	70-130	Pass	
Acenaphthylene	%	106	70-130	Pass	
Anthracene	%	124	70-130	Pass	
Benz(a)anthracene	%	89	70-130	Pass	
Benzo(a)pyrene	%	96	70-130	Pass	
Benzo(b&j)fluoranthene	%	91	70-130	Pass	
Benzo(g.h.i)perylene	%	99	70-130	Pass	
Benzo(k)fluoranthene	%	97	70-130	Pass	
Chrysene	%	98	70-130	Pass	
Dibenz(a.h)anthracene	%	96	70-130	Pass	
Fluoranthene	%	113	70-130	Pass	
Fluorene	%	107	70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96	70-130	Pass	
Naphthalene	%	72	70-130	Pass	
Phenanthrene	%	106	70-130	Pass	
Pyrene	%	116	70-130	Pass	
LCS - % Recovery		1 1		1	
Total Recoverable Hydrocarbons	1				
TRH C10-C14	%	113	70-130	Pass	
TRH >C10-C16*	%	114	70-130	Pass	
LCS - % Recovery		1 1		1	
Total Recoverable Hydrocarbons	i				
TRH C10-C14	%	84	70-130	Pass	
TRH >C10-C16*	%	83	70-130	Pass	
LCS - % Recovery		 TT		1	
Total Recoverable Hydrocarbons		ļ			
TRH C6-C9	%	78	70-130	Pass	
TRH C6-C10*	%	80	70-130	Pass	
LCS - % Recovery		1			
BTEX	i				
Benzene	%	103	70-130	Pass	
Toluene	%	88	70-130	Pass	
Ethylbenzene	%	100	70-130	Pass	
m&p-Xylenes	%	102	70-130	Pass	



т	Test		Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
o-Xylene			%	99		70-130	Pass	
Xylenes - Total*			%	101		70-130	Pass	
LCS - % Recovery				T	1			
BTEX and Naphthalene								
Naphthalene			%	95		70-130	Pass	
LCS - % Recovery								
Heavy Metals								
Arsenic			%	95		80-120	Pass	
Cadmium			%	94		80-120	Pass	
Chromium			%	93		80-120	Pass	
Copper			%	91		80-120	Pass	
Lead			%	87		80-120	Pass	
Mercury			%	93		80-120	Pass	
Nickel			%	92		80-120	Pass	
Zinc			%	93		80-120	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery		Jource				Linits	Linits	Code
Total Recoverable Hydrocarb	oons			Result 1				
TRH C6-C9	S24-Jn0076061	NCP	%	87		70-130	Pass	
TRH C6-C10*	S24-Jn0076061	NCP	%	88		70-130	Pass	
Spike - % Recovery								
втех				Result 1				
Benzene	S24-Jn0076061	NCP	%	104		70-130	Pass	
Toluene	S24-Jn0076061	NCP	%	90		70-130	Pass	
Ethylbenzene	S24-Jn0076061	NCP	%	97		70-130	Pass	
m&p-Xylenes	S24-Jn0076061	NCP	%	101		70-130	Pass	[
o-Xylene	S24-Jn0076061	NCP	%	98		70-130	Pass	
Xylenes - Total*	S24-Jn0076061	NCP	%	100		70-130	Pass	
Spike - % Recovery					1 1			
BTEX and Naphthalene				Result 1				
Naphthalene	S24-Jn0076061	NCP	%	90		70-130	Pass	
Spike - % Recovery			70			10.00	1 400	
				Result 1				
Nitrate & Nitrite (as N)	M24-JI0014223	NCP	%	113		70-130	Pass	
Nitrite (as N)	M24-JI0014223		%	99		70-130	Pass	
Spike - % Recovery						1		
Total Recoverable Hydrocarb	ons			Result 1				
TRH C10-C14	S24-JI0009997	NCP	%	107		70-130	Pass	
TRH >C10-C16*	S24-JI0009997	NCP	%	101		70-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	S24-JI0018562	NCP	%	99		75-125	Pass	
Cadmium	S24-JI0018562	NCP	%	96		75-125	Pass	
Chromium	S24-JI0018562	NCP	%	91		75-125	Pass	
Copper	S24-JI0018562	NCP	%	87		75-125	Pass	
Lead	S24-JI0018562	NCP	%	85		75-125	Pass	
Mercury	S24-JI0018562	NCP	%	93		75-125	Pass	
Nickel	S24-JI0018562	NCP	%	90		75-125	Pass	
Zinc	S24-JI0018562	NCP	%	90		75-125	Pass	
Spike - % Recovery	024-010010002		/0	35		75-125	1 0 2 2	
opike - / Kecovery				Recult 1				
Total Kieldehl Nitregen (cz. NI)	S24-JI0008880	СР	0/	Result 1		70.420	Dese	
Total Kjeldahl Nitrogen (as N)	324-310006680	67	%	101		70-130	Pass	l



Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons	-			Result 1	Result 2	RPD			
TRH C6-C9	S24-JI0012819	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10*	S24-JI0012819	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
втех	-			Result 1	Result 2	RPD			
Benzene	S24-JI0012819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S24-JI0012819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S24-JI0012819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S24-JI0012819	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S24-JI0012819	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S24-JI0012819	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate				1			1		
BTEX and Naphthalene	1			Result 1	Result 2	RPD			
Naphthalene	S24-JI0012668	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate				1					
	1	·		Result 1	Result 2	RPD			
Nitrate & Nitrite (as N)	M24-JI0014235	NCP	mg/L	0.42	0.41	<1	30%	Pass	
Nitrate (as N)	M24-JI0014227	NCP	mg/L	< 0.4	< 0.4	<1	30%	Pass	
Nitrite (as N)	M24-JI0014235	NCP	mg/L	0.11	0.11	1.3	30%	Pass	
Phosphate total (as P)	S24-JI0008786	NCP	mg/L	96	97	1.3	30%	Pass	
Total Kjeldahl Nitrogen (as N)	M24-JI0013836	NCP	mg/L	410	330	20	30%	Pass	
Duplicate				I	1		1	1	
Total Recoverable Hydrocarbons	1	· · · · ·		Result 1	Result 2	RPD			
TRH C10-C14	S24-JI0010017	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S24-JI0010017	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S24-JI0010017	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C10-C16*	S24-JI0010017	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34*	S24-JI0010017	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S24-JI0010017	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate					1		1	1	
Polycyclic Aromatic Hydrocarbon	s	,		Result 1	Result 2	RPD			
Acenaphthene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S24-JI0023274	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate								1	
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-JI0008893	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S24-JI0008893	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S24-JI0008893	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S24-JI0008893	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	



Duplicate				_					
Heavy Metals				Result 1	Result 2	RPD			
Lead	S24-JI0008893	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S24-JI0008893	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S24-JI0008893	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S24-JI0008893	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S24-JI0008894	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S24-JI0008894	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S24-JI0008894	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S24-JI0008894	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S24-JI0008894	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S24-JI0008894	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S24-JI0008894	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S24-JI0008894	СР	mg/L	< 0.005	0.005	160	30%	Fail	Q15



Comments

Analysis of E.Coli and Thermotolerant coliforms has been completed by Eurofins Food Testing Australia Pty Ltd, NATA Accreditation Number 20293, report reference AR-24-NV-012345-01.

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

Qualifier Codes/Comments

Code Description

N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Q15 The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Nileshni Goundar	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Mickael Ros	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic

Glenn Jackson Managing Director

Final Report - this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

Environment Testing

Raw Earth Environmental Pty Ltd 3/17 Tasman Way Byron Bay NSW 2481



NATA Accredited Accreditation Number 1261 Site Number 18217

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

Attention:	Jacques Chiomey
Report	1114214-AID
Project Name	DSI-EILEEN O'CONNOR
Project ID	s00360
Received Date	Jul 03, 2024
Date Reported	Jul 12, 2024

Methodology:

wethodology:	
Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.
Bonded asbestos- containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 4964 - 2004. NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01% " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.



Project Name	DSI-EILEEN O'CONNOR
Project ID	s00360
Date Sampled	Jul 01, 2024
Report	1114214-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
S17-A	24-JI0008877	Jul 01, 2024	Approximate Sample 952g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
S19A	24-JI0008878	Jul 01, 2024	Approximate Sample 861g Sample consisted of: Brown coarse-grained clayey soil, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
S20A	24-JI0008879	Jul 01, 2024	Approximate Sample 629g Sample consisted of: Brown fine-grained clayey soil, cement and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.



Sample History

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

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

Description

Asbestos - LTM-ASB-8020

Testing SiteExtractedSydneyJul 03, 2024

Holding Time Indefinite

	-		nvironment Te	sting A	ustralia Pty Lto	i i							Eurofi	ns ARI	- Pty Lt	d E	urofins	s ProMicro	Pty Ltd	Eurofins Enviro	onment Testi	ng NZ I	Ltd	
	eurofin	S ABN: 50 005											ABN: 91 05 0159 898					009 120 549		NZBN: 9429046024954				
web: w	ww.eurofins.com.au EnviroSales@eurofins.co	6 Monterey R Dandenong S VIC 3175 +61 3 8564 5	South Grovedale VIC 3216	4 5000 61	Sydney t 179 Magowar Ros Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Mitchell ACT 2911	Dacre Street 1/21 Smallwood Place 1/2 Frost Drive Murarie Mayfield West 1 QLD 4172 NSW 2304 13 8091 T: +61 7 3902 4600 +61 2 4968 844 261 NATA# 1261 NATA# 1261			at Drive West 304 968 8448 1261	3	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370				Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554			Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Fo Unit C1/4 Paci Mount Welling Auckland 106 +64 9 525 056 IANZ# 1308	fic Rise, ton,	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402	
	ompany Name: Idress:	Raw Earth Env 3/17 Tasman V Byron Bay NSW 2481		9/L								Re Pi	rder N eport i hone: ax:			4214 0 034				Received: Due: Priority: Contact Na	Ju 5	l 10, 2 Day	024 3:36 PM 2024 s Chiomey	
	oject Name: oject ID:	DSI-EILEEN O s00360	CONNOR																Eurofir	ns Analytical S	Services N	lanag	er : Adam Bat	eup
			ample Detail				Asbestos - WA guidelines	E.coli (MPN)	HOLD*	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH						
Melt	oourne Laborato	ory - NATA # 12	261 Site # 12	254									Х											
Syd	ney Laboratory	- NATA # 1261	Site # 1821	7			Х		Х	Х	Х			Х	Х	Х	Х	Х						
Exte	ernal Laboratory	/						Х				Х												
No	Sample ID	Sample Date	Sampling Time	I	Matrix	LAB ID																		
1	S1-0.5	Jul 01, 2024		Soil	s	24-JI0008861								х	х									
2	S3	Jul 01, 2024		Soil	S	24-JI0008862								Х	Х									
3	S6	Jul 01, 2024		Soil	s	24-JI0008863								Х	Х									
4	S8	Jul 01, 2024		Soil	S	24-JI0008864								Х	Х									
5	S11	Jul 01, 2024		Soil	s	24-JI0008865								Х	Х									
6	S17	Jul 01, 2024		Soil	s	24-JI0008866								Х	Х									
7	S17-1.8	Jul 01, 2024		Soil	s	24-JI0008867								х	х									
8	S19	Jul 01, 2024		Soil	s	24-JI0008868								Х	х									
9	S20	Jul 01, 2024		Soil	S	24-JI0008869								х	Х									
10	S21	Jul 01, 2024		Soil	S	24-JI0008870								Х	Х									
11	QA1	Jul 01, 2024		Soil	S	24-JI0008871								Х		Х								
12	TS1	Jul 01, 2024		Trip (liqui		24-JI0008872												х						

			vironment Test	ting Australia Pty	Ltd							Eurofir			d E	urofins	s ProMicro	Pty Ltd	Eurofins Envir	onment Testing NZ	Ltd		
	eurofin	ABN: 50 005 08		Sydney								ABN: 91	05 015	9 898			009 120 549		NZBN: 9429046024954				
web: w	reb: www.eurofins.com.au mail: EnviroSales@eurofins.com Company Name: Raw	6 Monterey Roa Dandenong Sor VIC 3175 +61 3 8564 500	outh Grovedale VIC 3216	Canberra Road Unit 1,2 Dacre Street Mitchell ACT 2911 400 +61 2 6113 8091 NATA# 1261 Site# 25466	Murar QLD T: +61 NATA:	Smallwoo rrie	4600	Mayfield NSW 23	st Drive d West 304 968 8448 1261	В	Perth 46-48 Ba Welshpc WA 6106 +61 8 62 NATA# 2 Site# 23	ool 6 253 444 2377		46 W W +6	Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554			Auckland 35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland (Focus) Unit C1/4 Pacific Rise Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Road Gate Pa, 5 Tauranga 3112 +64 9 525 0568 IANZ# 1402		
		Raw Earth Envir 3/17 Tasman Wa Byron Bay NSW 2481		L							Re	rder Neport # none: ax:		111- 130	4214 0 034	153			Received: Due: Priority: Contact Na	Jul 10, 5 Day	024 3:36 PM 2024 s Chiomey		
Pro Pro	oject Name: oject ID:	DSI-EILEEN O'C s00360	CONNOR														1	Eurofiı	ns Analytical	Services Manag	ıer : Adam Ba	teup	
								-	7				_		_	_		laronn	is Analytical			teup	
			Asbestos - WA guidelines	E.coli (MPN)	HOLD*	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH									
Melk	ourne Laborate	ory - NATA # 126	61 Site # 125	j4					\square			Х											
Syd	ney Laboratory	- NATA # 1261 S	Site # 18217			Х		Х	Х	Х			Х	Х	Х	Х	х						
13	TB1	Jul 01, 2024		Trip Blank (liquid)	S24-JI0008873											х							
14	S7-1.8	Jul 01, 2024		Soil	S24-JI0008874								Х	Х									
15	SW1	Jul 01, 2024		Water	S24-JI0008875		Х		Х	Х	Х	Х			х								
16	WQA1	Jul 01, 2024		Water	S24-JI0008876	\perp	х		х	Х	х	Х			х								
17	S17-A	Jul 01, 2024		Soil	S24-JI0008877	Х			1	\vdash		\perp											
18	S19A	Jul 01, 2024		Soil	S24-JI0008878	Х			<u> </u>	<u> </u>	\square	<u> </u>											
19	S20A	Jul 01, 2024		Soil	S24-JI0008879	Х			<u> </u>	<u> </u>	\square	<u> </u>											
20	SW2	Jul 01, 2024		Water	S24-JI0008880	\perp	X		Х	Х	Х	Х			х								
21	S10	Jul 01, 2024		Soil	S24-JI0008881	<u> </u>			_	—	└──	_	Х	Х									
22	S13	Jul 01, 2024		Soil	S24-JI0008882	<u> </u>			_	—	└──		Х	Х									
23	S15	Jul 01, 2024		Soil	S24-JI0008883	+				—	<u> </u>	<u> </u>	Х	Х									
24	S16	Jul 01, 2024		Soil	S24-JI0008884	<u> </u>			_	—	└──	_	Х	Х									
25	S22	Jul 01, 2024		Soil	S24-JI0008885	\vdash			<u> </u>	—	<u> </u>	<u> </u>	Х	Х									
26 27	S23 S24	Jul 01, 2024		Soil	S24-JI0008886	\perp			\perp	\bot			Х	Х									
		Jul 01, 2024		Soil	S24-JI0008887								Х	X									

Eurofins Environment Testing Australia Pty Ltd ABN: 50 005 085 521 Melbourne Geelong Sydney Canberra						td							Eurofii ABN: 91		. Pty Lt 9 898			5 ProMicro F 09 120 549	- T	d Eurofins Environment Testing NZ Ltd NZBN: 9429046024954								
web: wv	eb: www.eurofins.com.au nail: EnviroSales@eurofins.com Company Name: Ra		Bourne Monterey Road Indenong South C 3175 1 3 8564 5000 ITA# 1261 e# 1254	Canberra oad Unit 1,2 Dacre Stree Mitchell ACT 2911 0 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane Newcastle et 1/21 Smallwood Place 1/2 Frost Drive Murarrie Mayfield West QLD 4172 NSW 2304 T: +61 7 3902 4600 +61 2 4968 8448 NATA# 1261 NATA# 1261 Site# 20794 & 2780 Site# 25079						Perth 46-48 Ba Welshpo WA 6100 +61 8 62 NATA# 2 Site# 23	ool 6 253 4444 2377		46 W W +6 N/	Perth ProMicro 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2561 Site# 2554			Auckland 35 O'Rorke Road Penrose, Auckland 1061 ⊧64 9 526 4551 ANZ# 1327	Auckland (Foc Unit C1/4 Pacifi Mount Wellingte Auckland 1061 +64 9 525 0568 IANZ# 1308	c Rise, in,	Christchurch 43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 1277 Cameron Roa Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402						
Co Ad	mpany Name: dress:	Raw Ea 3/17 Ta Byron B NSW 24	irth Environi sman Way Bay 481	mental P/L				Re	der N port # one: x:		1114 1300	4214) 034	153			Received: Due: Priority: Contact Na	Jul 5 D	3, 20 10, 2 ay ques										
Pro Pro	oject Name: oject ID:													E	urofins	Analytical	Services Ma	anage	er : Adam Bat	eup								
			Asbestos - WA guidelines	E.coli (MPN)	HOLD*	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH														
Melb	ourne Laborate	ory - NA	TA # 1261 \$	Site # 1254									Х															
Sydı	ey Laboratory	- NATA	# 1261 Site	# 18217			Х		Х	Х	Х			Х	Х	Х	Х	Х										
28	QA2	Jul 01,	2024	Soi	il i	S24-JI0008888								Х		Х												
29	TS2	Jul 01,	2024		o Spike uid)	S24-JI0008889												x										
30	TB2	Jul 01,	2024		o Blank uid)	S24-JI0008890											x											
31	TSW	Jul 01,	2024		o Spike uid)	S24-JI0008891												x										
32	TBW	Jul 01, 1	2024		o Blank uid)	S24-JI0008892											x											
33	RINSE-S	Jul 01,	2024	Wa	iter	S24-JI0008893										Х												
34	RINSE-W	Jul 01,	2024	Wa	iter	S24-JI0008894		Х		Х	Х	Х	Х			Х												
35	S1-1.8	Jul 01,	2024	Soi		S24-JI0008895			Х																			
36	S2	Jul 01,	2024	Soi	1	S24-JI0008896			х																			
37	S4	Jul 01,	2024	Soi		S24-JI0008897			Х																			
38	S7	Jul 01,	2024	Soi		S24-JI0008898			Х																			
39	S9	Jul 01,	2024	Soi	1	S24-JI0008899			х																			

Eurofins Environment Testing Australia Pty Ltd				d							Eurofi	ns ARI	L Pty Lt	d E	urofins	s ProMic	ro Pty Ltd	Eurofins Environment Testing NZ Ltd						
eurofir		ABN: 50 005 085 5 Melbourne 6 Monterey Road Dandenong South	Geelong 19/8 Lewalan Stro Grovedale	Girraween	Canberra bad Unit 1,2 Dacre Stree Mitchell	Murar	Smallwoo rie	od Place	Mayfield	st Drive West		ABN: 91 Perth 46-48 B Welshpo	anksia F ool		Pe 46 W	erth Pro 6-48 Ban /elshpool	ksia Road		NZBN: 9429046024 Auckland 35 O'Rorke Road Penrose,	Auckland (Focu Unit C1/4 Pacific Mount Wellingto	r Rise, ∠ n, F	Christchurch 43 Detroit Drive Rolleston,	Tauranga 1277 Cameron Road, Gate Pa,	
web: www.eurofins.com.au email: EnviroSales@eurofins.o	com	VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	NATA	7 3902 # 1261	4600	NATA# 1	968 8448 1261	3	WA 610 +61 8 62 NATA# 2 Site# 23	253 444 2377	4	+6 N/	/A 6106 61 8 625 ATA# 256 ite# 2554	61		Auckland 1061 +64 9 526 4551 IANZ# 1327	Auckland 1061 +64 9 525 0568 IANZ# 1308	+	Christchurch 7675 +64 3 343 5201 IANZ# 1290	Tauranga 3112 +64 9 525 0568 IANZ# 1402	
Company Name: Address:	Raw E 3/17 T Byron NSW	Earth Environ Fasman Way Bay 2481	mental P/L								Re	der N port i ione: x:			4214 0 034	153			Received: Due: Priority: Contact Na	Jul 5 D	10, 20: ay	4 3:36 PM 24 Chiomey		
Project Name: Project ID:	DSI-E s0036	ILEEN O'CO 0	NNOR															Eurofin	s Analytical S	Services Ma	nager	r : Adam Bat	eup	
		Samp	le Detail			Asbestos - WA guidelines	E.coli (MPN)	HOLD*	pH (at 25 °C)	Phosphate total (as P)	Thermotolerant Coliforms (MPN)	Total Nitrogen Set (as N)	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	Eurofins Suite B7	BTEXN and Volatile TRH	BTEXN and Volatile TRH							
Melbourne Laborat												X												
Sydney Laboratory						X		X	X	X			Х	X	Х	X	Х							
41 S12		1, 2024	Soi		S24-JI0008901			X																
42 S14	_	1, 2024	Soi		S24-JI0008902			X																
43 S18	Jul 01	1, 2024	Soi	1 [8	S24-JI0008903	2		X					20	10	7	2								
Test Counts						3	4	9	4	4	4	4	20	18	7	3	3							



Internal Quality Control Review and Glossary General

- QC data may be available on request. All soil results are reported on a dry basis, unless otherwise stated. 1. 2.
- Samples were analysed on an 'as received' basis. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results. This report replaces any interim results previously issued. 3. 4. 5.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001). If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units	
% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (% w/w)
F/fld F/mL	Airborne fibre filter loading as Fibres (N) per Fields counted (n) Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (C)
g, kg	Mass, e.g. of whole sample (M) or asbestos-containing ind within the sample (m)
g/kg	Concentration in grams per kilogram
L, mL L/min	Volume, e.g. of air as measured in AFM ($\mathbf{V} = \mathbf{r} \times \mathbf{t}$)
min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (r) Time (t), e.g. of air sample collection period
Calculations	
Airborne Fibre Concentration:	$C = \binom{a}{n} \times \binom{n}{n} \times \binom{1}{r} \times \binom{1}{r} = K \times \binom{n}{n} \times \binom{1}{r}$
Asbestos Content (as asbestos):	$\% w/w = \frac{(m \times P_A)}{m}$
Weighted Average (of asbestos):	р А
Weighted Average (of asbestos).	
Terms	
%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 Appendix 2, else
	assumed to be 15% in accordance with WA DOH Appendix 2 (P _A). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH, Includes loose fibre bundles and small pieces of friable and non-friable
	material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos	i) Total %w/w asbestos content in asbestos-containing finds in a soil sample (% w/w).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become
	friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, Asbestos: The Analysts Guide, 2nd Edition (2021).
HSG264	UK HSE HSG264, Asbestos: The Survey Guide (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (K) as derived from the effective filter area of the given AFM membrane used for collecting the sample (A) and the projected eyepiece
	graticule area of the specific microscope used for the analysis (a).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, Guidance Note on the Membrane
	Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004.
	May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, Guidelines for the Assessment, Remediation and Management of Asbestos- Contaminated Sites in Western Australia (updated 2021), including Appendix Four: Laboratory analysis
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (%wA).



Comments

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

Asbestos Counter/Identifier:

Bennel Jiri

Senior Analyst-Asbestos

Authorised by:

Sayeed Abu

Senior Analyst-Asbestos

Glenn Jackson Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Company	Rew Earth Environmental P/L.		Project Ne		500360			Project Manager	Jacques C			Sampl	cr(s)	J	acob R	2					
Address	3/17 Tasman Way Byron Bay		Project Name		DSt - Eileen G	Connor		EDD Format EStat Bouls (A		Facility Code		Handed	over by	J	Jacob R						
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Contact Name	Jacob R		1. A LE - 33									Email for	Results	i	acque	sera	awear	rthenvironmental.c	.om.au		
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	86	1/07/24	Sol	X									1			1	1				
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	89	1/07/24	Sol							X		Ħ				1	1				
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Company	Raw Earth Environmental P/L		Project Ne						Project Manag	er	-		5	Sample	(s)		Jacob	R				
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	\$10	2/07/24	Soli			X													1	1				
	\$12	2/07/24	Soil								X								1	1				
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Company	Raw Earth Environmental PfL		Project Na					Project Manager					Sample	r(s)		Jacob	R				
Address	3/17 Tesman Way Byron Bay		Project Name					EDD Format		Facility Code		Ha	nded o	ver by		Jacob	R				
FIGTESS	NSW											Email for Invoice				ja cqu	es@r	awea	earthenvironmental.com.au		
Contact Name	Jacob R		11.0									En	hall for F				es@r	awea	earthenvironmental.com.au		
Phone №	0400995309		es 4 . : . 										Change	Co armta ne r	ntainer tupu Nat	S Izl 1 nes			Required Turnat Details will be f	ound Time (TA	
Special Directions	Fijter metals in Jab		including to the standard state of the state	ENM Analysis	87				HOLD								ជា	Cuddelliness)	Overnight (rep — Same day∳	+Surcharge will e porting by Sam)(1 day 	
Purchase Order Quote ID N2			W mutal of	6								500mL Plastic	250mL Plastic	SUML Plantic	40mL VOA vial	S00mL PFAS Bottle	Jar (Glass or HDPE)	Other (Ashestos A34964, WA Guid	2 days - 5 days (Standar Other(od) 3 days∳ d)	
t ci	lia+A6:R15nt Sample ID	Sampled Date/Time stron to	Matrix sataj isi Witter (Mi									20	23	360m	\$	500m	Jaar (Other (Ashesto	Sample (/ Dangerous Good	Comments ds Hazard Warr	
	513	2/07/24	Sall	X													1	1			
	814	2/07/24	Sol						X								1	1			
	815	2/07/24	Sol	X													1	1			
	\$16	2/07/24	Soil	X													1	1			
	818	2/07/24	Soil						X								1	1			
	522	2/07/24	Sal	X											T	F	1	1			
	823	2/07/24	Sol	X											T	F	1	1			
	824	2/07/24	Soil	X											T	Г	1	1			
	QA2	2/07/24	Soil		X												1				
0	QA2A	2/07/24	Solid		X												1	(SGS to analyse	5	
	Add Rows	FRIDE	Total Counts	6	2				2								10	8			
ethod of Shipment	Courier (#) _	Hand Delivered		Postal	Name	Jacob	Romer	Signature				Date			7/3/	2024		Time	12:00:09 P	
Laboratory Use Only	Received By			SYD	BNE MEL PER	I ADL I NTL I DRW	Signature			Date			Tim						Temperature		
Caperney out On	Received By			SYD	BINE MEL PER	ADL NTL DRW	Signature			Date			Tim		R			Report No			

Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the taboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request,

8	CHAIN OF CUSTOD		1,	179 Magov		ween NSW 2066 ImpleNSW@eurolins.co	61	Unit 1		Murania QLD 4172 nplaQLD@aurolins.com		ventory is Road Welshpool W 4 Samples@ARLon						6 Monler	arne Laboratory rey Road Dandenong South 5000 EnviroSampleVic@				
Company	Raw Earth Environmental P/L		Project Ne						Project M	anager				Samp	ler(s)		Jacob	R					
Address	3/17 Tasman Way Byron Bay		Project Name						EDD Fo	emat uis ui	Facility Code		H	anded	over by		Jacob	R					
Provinces	NSW		1			uo							En	nail for	Invoice	•	jacqu	es @ra	wearthenvironme	ntal.com.au			
Contact Name	Jacob R		65 			Total Nitrogen								Email for Results			acqu	es @rat	wearthenvironme				
Phone N2	0400995309		Analyses			phate. To								2m		ontaine tu	15		Required T Deskin	ับเกลาอิมเริ่ม Time (TAT ประสุริษณาการรู			
pecial Directions	Filter metals in lab	is in lab		tals in lab		28	BTEXWTRH			is, Total Phos and pH										4	+Surcharge will app htt (reporting by Sem)= • 1 day •		
Purchase Order Quote ID №					18	B7 + E.Coli, Faocal Colforms, Total Phosphate, ' and pH							500mL Plastic	250mi. Plastic	60mL Plastic	ZUWINL ANDON GIRES	Sound PFAS Bottle	Jar (Glass or HDPE)	To same day 2 days ♦ 1 2 days ♦ 1 5 days (State 1 Other(1 0 days (State) 1 0	3 days.∉ andard)			
	lie+A6:R15nt Sampte ID	Sampled Date/Time	Matrix			B7 + E.Coli							47	2		200	500	1.	San / Dangerous	nple Comments Goods Hazard Warni			
	752	2/07/24	Water		X					-						2		T					
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ethod of Shipment	Courier (#)	Hand Delivered			Postal	Name	Ja	scob Romer	Signature		dai		Da	te		7/3/	2024	Time	12:08:00 PN			
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Eurofins Environment Testing Australia Pty Ltd

Submission of samples to the laboratory will be deamed as acceptance of Earolins | mgl Standard Terms and Conditions unless agreed otherwise. A copy of Eurolins | mgl Standard Terms and Conditions i available on necuesi.



CLIENT DETAILS	3	LABORATORY DETA	ILS	
Contact	Jacques Chiomey	Manager	Shane McDermott	
Client	RAW EARTH ENVIRONMENTAL	Laboratory	SGS Alexandria Environmental	
Address	3/17 Tasman Way Byron Bay BYRON BAY NSW 2481	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	(Not specified)	Telephone	+61 2 8594 0400	
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	jacques@rawearthenvironmental.com.au	Email	au.environmental.sydney@sgs.com	
Project	S00360 DSI Eileen O'Connor	Samples Received	Thu 4/7/2024	
Order Number	S00360	Report Due	Thu 11/7/2024	
Samples	3	SGS Reference	SE267737	

SUBMISSION DETAILS

This is to confirm that 3 samples were received on Thursday 4/7/2024. Results are expected to be ready by COB Thursday 11/7/2024. Please quote SGS reference SE267737 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Sample counts by matrix Date documentation received Samples received without headspace Sample container provider Samples received in correct containers Sample cooling method Complete documentation received
- 2 Soil, 1 Water 4/7/2024 Yes Other Lab Yes Ice Bricks Yes

Type of documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Sufficient sample for analysis Samples clearly labelled COC Yes 11.5°C Standard 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 -

This document is issued by the Company under its General Conditions of Service accessible at <u>www.sqs.com/en/Terms-and-Conditions.aspx</u>. 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

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www.sgs.com.au



CLIENT DETAILS

Client RAW EARTH ENVIRONMENTAL

Project S00360 DSI Eileen O'Connor

— SUMM	IARY OF	ANALYSIS	 						
Ν	o. S	Sample ID		Mercury in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	Q	A1A		1	26	7	10	11	7
003	Q	A2A		1	26	7	10	11	7

CONTINUED OVERLEAF



CLIENT DETAILS

Client RAW EARTH ENVIRONMENTAL

Project S00360 DSI Eileen O'Connor

SUMMAF	Y OF ANALYSIS		1	1	1	1	
No.	Sample ID	Moisture Content	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Total Phosphorus by Kjeldahl Digestion DA in	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	QA1A	1	-	-	-	-	-
002	WQA1A	-	22	1	9	11	7
003	QA2A	1	-	-	-	-	-

_ CONTINUED OVERLEAF



CLIENT DETAILS

Client RAW EARTH ENVIRONMENTAL

Project S00360 DSI Eileen O'Connor

_	SUMMARY	OF ANALYSIS					1	1	
	No.	Sample ID	Anions by Ion Chromatography in Water	E. coli and Thermotolerant coliforms in Water	Mercury (dissolved) in Water	Nitrite in Water	pH in water	TKN Kjeldahl Digestion by Discrete Analyser	Trace Metals (Dissolved) in Water by ICPMS
	002	WQA1A	1	3	1	2	1	2	7

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 .



ANALYTICAL REPORT





- CLIENT DETAILS		LABORATORY DE	TAILS
Contact	Jacques Chiomey	Manager	Shane McDermott
Client	RAW EARTH ENVIRONMENTAL	Laboratory	SGS Alexandria Environmental
Address	3/17 Tasman Way Byron Bay BYRON BAY NSW 2481	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	(Not specified)	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	jacques@rawearthenvironmental.com.au	Email	au.environmental.sydney@sgs.com
Project	S00360 DSI Eileen O'Connor	SGS Reference	SE267737 R0
Order Number	S00360	Date Received	4/7/2024
Samples	3	Date Reported	11/7/2024

COMMENTS

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

SIGNATORIES

kmIn

Akheeqar BENIAMEEN Chemist

Organic Section Head

Ly Kim HA

Bennet LO Senior Chemist

Bles

Shane MCDERMOTT Laboratory Manager

Dong LIANG Metals/Inorganics Team Leader

ณัชพล ฮิฮันดา

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Kamrul AHSAN

Senior Chemist

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VOC's in Soil [AN433] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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 (VOC)*	mg/kg	0.1	<0.1	<0.1



Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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



TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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



SE267737 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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><0.2</td><td><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><0.3</td><td><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><0.2</td><td><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



Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
Arsenic, As	mg/kg	1	<1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	<0.5	0.6
Copper, Cu	mg/kg	0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	1
Nickel, Ni	mg/kg	0.5	<0.5	<0.5
Zinc, Zn	mg/kg	2	<2.0	<2.0



Mercury in Soil [AN312] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
				-
				2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
Mercury	mg/kg	0.05	<0.05	<0.05



Moisture Content [AN002] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			-	-
			1/7/2024	2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
% Moisture	%w/w	1	10.0	14.7



VOCs in Water [AN433] Tested: 8/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
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 (VOC)*	µg/L	0.5	<0.5



Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
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



SE267737 R0

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 8/7/2024

			WQA1A
			WATER
			-
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
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



SE267737 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 8/7/2024

			WQA1A WATER
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
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 μg/L	0.1	<0.1
Pyrene	μg/L	0.1	<0.1
Benzo(a)anthracene	μg/L μg/L	0.1	<0.1
Chrysene	µg/L	0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1
Benzo(k)fluoranthene	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
Total PAH (18)	µg/L	1	<1



Total Phosphorus by Kjeldahl Digestion DA in Water [AN279/AN293(Sydney only)] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	<0.02



pH in water [AN101] Tested: 4/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
pH**	No unit	-	6.6



Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 8/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Arsenic	µg/L	1	<1
Cadmium	µg/L	0.1	<0.1
Chromium	µg/L	1	1
Copper	µg/L	1	3
Lead	µg/L	1	<1
Nickel	µg/L	1	3
Zinc	µg/L	5	64



Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 5/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Mercury	mg/L	0.0001	<0.0001



Anions by Ion Chromatography in Water [AN245] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Nitrate Nitrogen, NO3-N	mg/L	0.005	2.0



Nitrite in Water [AN277] Tested: 5/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.014
Total Oxidised Nitrogen, NOx-N	mg/L	0.005	2.0



TKN Kjeldahl Digestion by Discrete Analyser [AN292] Tested: 8/7/2024

			WQA1A
			WATER
PARAMETER	UOM	LOR	SE267737.002
Total Kjeldahl Nitrogen	mg/L	0.05	0.91
Total Nitrogen (calc)	mg/L	0.05	2.9



E. coli, Total and Faecal (Thermotolerant) coliforms in Water [AN735] Tested: 5/7/2024

			WQA1A
			WATER -
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
Date & Time Processed*	No unit		2024-07-05 09:51
Date & Time Flocesseu	NO UIII	-	2024-07-03 09:31
E. coli	MPN/100mL	1	<1
Faecal Coliforms	MPN/100mL	1	<1



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.
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 AAS or ICP as per USEPA Method 200.8.
AN101	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+.
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
AN277	Nitrite ions, when reacted with a reagent containing sulphanilamide and N -(1-naphthyl)-ethylenediamine dihydrochloride produce a highly coloured azo dye that is measured photometrically at 540nm.
AN279/AN293(Sydney)	The sample is digested with Sulphuric acid, K2SO4 and CuSO4. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.
AN281	An unfiltered water or soil sample is first digested in a block digestor with sulfuric acid, K2SO4 and CuSO4. The ammonia produced following digestion is then measured colourimetrically using the Discrete Analyser. A portion of the digested sample is buffered to an alkaline pH, and interfering cations are complexed. The ammonia then reacts with salicylate and hypochlorite to give a blue colour whose absorbance is measured at 660nm and compared with calibration standards. This is proportional to the concentration of Total Kjeldahl Nitrogen in the original sample.
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, 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). 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). Total PAH calculated from individual analyte detections at or above the limit of reporting.



AN420	Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs. The sum is reported three ways, the first assuming all <lor <lor="" all="" are="" assuming="" lor.<="" results="" second="" td="" the="" zero,=""></lor>
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.
AN735	The Colilert matrix contains two nutrient indicators, ONPG (ortho-nitro-phenyl B-d- galactopyranoside) and MUG (4-methyl-umbelliferyl B-d-glucruonide). As coliforms grow, they use B-galactosidase to metabolise ONPG which causes yellow colouration of the matrix via the nitro-phenyl. E.coli possesses an additional enzyme, B-glucuronidase, which it uses to metabolise MUG and display florescence (caused by the 4 methyl-umbelliferyl). Incubation at 37°C.
AN735	Non target organisms are suppressed by a combination of high salts, detergents etc. present within the matrix. Faecal coliforms are thermotolerant, thus they can be enumerated by testing at 44.5°C.

FOOTNOTES -

*	NATA accreditation does not cover	-	Not analysed.	UOM	Unit of Measure.
	the performance of this service.	NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of
	time exceeded.	LNR	Sample listed, but not received.		Reporting.
***	Indicates that both * and ** apply.				

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: <u>www.sgs.com.au/en-gb/environment-health-and-safety</u>.

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

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STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAI	ILS
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Project	S00360 DSI Eileen O'Connor	SGS Reference	SE267737 R0
Order Number	S00360	Date Received	04 Jul 2024
Samples	3	Date Reported	11 Jul 2024

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:

Extraction Date	Anions by Ion Chromatography in Water	1 item
	E. coli, Total and Faecal (Thermotolerant) coliforms in Water	1 item
	Mercury (dissolved) in Water	1 item
	Nitrite in Water	1 item
	PAH (Polynuclear Aromatic Hydrocarbons) in Water	1 item
	pH in water	1 item
	TKN Kjeldahl Digestion by Discrete Analyser	1 item
	Total Phosphorus by Kjeldahl Digestion DA in Water	1 item
	TRH (Total Recoverable Hydrocarbons) in Water	1 item
	VOCs in Water	1 item
	Volatile Petroleum Hydrocarbons in Water	1 item
Analysis Date	Anions by Ion Chromatography in Water	1 item
	E. coli, Total and Faecal (Thermotolerant) coliforms in Water	1 item
	Mercury (dissolved) in Water	1 item

There are more than 15 quality objective exceedences. Please see report for details

O male and the section		The state of the second st	000	
Sample counts by matrix	2 Soil, 1 Water	Type of documentation received	COC	
Date documentation received	4/7/2024	Samples received in good order	Yes	
Samples received without headspace	Yes	Sample temperature upon receipt	11.5°C	
Sample container provider	Other Lab	Turnaround time requested	Standard	
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes	
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes	
Complete documentation received	Yes	. ,		

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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

Anions by Ion Chromatog Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	ME-(AU)-[ENV]AN Analysed
WQA1A	SE267737.002	LB317098	01 Jun 2024	04 Jul 2024	29 Jun 2024	08 Jul 2024†	29 Jun 2024	10 Jul 2024†
	CLEONONCOL	20011000	0100112021	010012021	20 0011 202 1	0000120211	20 000 2021	10 00120211
. coli, Total and Faecal ((Thermotolerant) coliforms i	n Water					Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316944	01 Jun 2024	04 Jul 2024	02 Jun 2024	05 Jul 2024†	08 Jul 2024	09 Jul 2024†
Aercury (dissolved) in Wa	ater						Method: ME-(AU)-[ENV	AN311(Perth)/Al
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316931	01 Jun 2024	04 Jul 2024	29 Jun 2024	05 Jul 2024†	29 Jun 2024	05 Jul 2024†
fercury in Soil							Method:	ME-(AU)-[ENV]AI
•	Comple No.		Compled	Dessived	Extraction Due	Eveneted		
Sample Name QA1A	Sample No. SE267737.001	QC Ref LB316969	Sampled 01 Jul 2024	Received 04 Jul 2024	Extraction Due 29 Jul 2024	Extracted 05 Jul 2024	Analysis Due 29 Jul 2024	Analysed 09 Jul 2024
QA2A	SE267737.001	LB316969	01 Jul 2024	04 Jul 2024 04 Jul 2024	30 Jul 2024	05 Jul 2024	30 Jul 2024	09 Jul 2024
loisture Content	32201131.003	20310303	02 301 2024	04 301 2024	30 301 2024	00 301 2024		ME-(AU)-[ENV]A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316967	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	10 Jul 2024	08 Jul 2024
QA2A	SE267737.003	LB316967	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	10 Jul 2024	08 Jul 2024
litrite in Water							Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316964	01 Jun 2024	04 Jul 2024	05 Jun 2024	05 Jul 2024†	05 Jun 2024	10 Jul 2024†
AH (Polynuclear Aroma	tic Hydrocarbons) in Soil						Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316963	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
QA2A	SE267737.003	LB316963	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
AH (Polynuclear Aroma	tic Hydrocarbons) in Water						Method:	ME-(AU)-[ENV]A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317036	01 Jun 2024	04 Jul 2024	08 Jun 2024	08 Jul 2024†	17 Aug 2024	10 Jul 2024
H in water							Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316868	01 Jun 2024	04 Jul 2024	02 Jun 2024	04 Jul 2024†	02 Jun 2024	04 Jul 2024†
KN Kjeldahl Digestion b	u Disercto Analyzor						Mothod	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317096	01 Jun 2024	04 Jul 2024	29 Jun 2024	08 Jul 2024†	29 Jun 2024	10 Jul 2024†
	dahl Digestion DA in Water		Somelad	Received	Extraction Due		d: ME-(AU)-[ENV]AN27	
Sample Name WQA1A	Sample No. SE267737.002	QC Ref LB317096	Sampled 01 Jun 2024	04 Jul 2024	Extraction Due 29 Jun 2024	Extracted 08 Jul 2024†	Analysis Due 29 Jun 2024	Analysed 10 Jul 2024†
WQA1A	SE267737.002	LB317096	01 Jun 2024	04 JUI 2024	29 Jun 2024	08 Jul 2024T	29 Jun 2024	10 Jul 2024T
otal Recoverable Eleme	onts in Soil/Waste Solids/Ma	terials by ICPOES					Method: ME-(AL)-[ENV]AN040/A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
	SE267737.001	LB316968	01 Jul 2024	04 Jul 2024	28 Dec 2024	05 Jul 2024	28 Dec 2024	09 Jul 2024
	SE267737.003	LB316968	02 Jul 2024	04 Jul 2024	29 Dec 2024	05 Jul 2024	29 Dec 2024	09 Jul 2024
QA2A							Method:	ME-(AU)-[ENV]A
QA2A ' <mark>race Metals (Dissolved)</mark>								
QA1A QA2A Trace Metals (Dissolved) Sample Name WQA1A	in Water by ICPMS Sample No. SE267737.002	QC Ref LB317031	Sampled 01 Jun 2024	Received 04 Jul 2024	Extraction Due 28 Nov 2024	Extracted 08 Jul 2024	Analysis Due 28 Nov 2024	Analysed 08 Jul 2024

Sample Name	Sample No.	QC Ref



HOLDING TIME SUMMARY

Method: ME-(AU)-[ENV]AN433

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

TRH (Total Recoverable I	Hydrocarbons) in Soil (conti	nued)					Method: I	ME-(AU)-[ENV]AN40
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316963	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
QA2A	SE267737.003	LB316963	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
TRH (Total Recoverable I	Hydrocarbons) in Water						Method: I	ME-(AU)-[ENV]AN40
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317036	01 Jun 2024	04 Jul 2024	08 Jun 2024	08 Jul 2024†	17 Aug 2024	10 Jul 2024

VOC's in Soil	VOC's in Soil Method: ME-(AU)-[EN									
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed		
QA1A	SE267737.001	LB316966	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	15 Jul 2024	08 Jul 2024		
QA2A	SE267737.003	LB316966	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	16 Jul 2024	08 Jul 2024		
VOCs in Water							Method: I	ME-(AU)-[ENV]AN433		
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed		
WQA1A	SE267737.002	LB317116	01 Jun 2024	04 Jul 2024	15 Jun 2024	08 Jul 2024†	15 Jun 2024	09 Jul 2024†		

Volatile Petroleum Hydrocarbons in Soil

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316966	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	15 Jul 2024	08 Jul 2024
QA2A	SE267737.003	LB316966	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	16 Jul 2024	08 Jul 2024
Value Petroleum Hydrocarbons in Water Method: ME-(AU)-[ENV]A								
Volatile Petroleum Hydroc	arbons in Water						Method: I	ME-(AU)-[ENV]AN433
Volatile Petroleum Hydrod Sample Name	arbons in Water Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Method: I Analysis Due	ME-(AU)-[ENV]AN433 Analysed



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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	QA1A	SE267737.001	%	70 - 130%	96
	QA2A	SE267737.003	%	70 - 130%	101
d14-p-terphenyl (Surrogate)	QA1A	SE267737.001	%	70 - 130%	99
	QA2A	SE267737.003	%	70 - 130%	101
15-nitrobenzene (Surrogate)	QA1A	SE267737.001	%	70 - 130%	96
	QA2A	SE267737.003	%	70 - 130%	103
AH (Polynuclear Aromatic Hydrocarbons) in Water				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery 9
2-fluorobiphenyl (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	60
d14-p-terphenyl (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	68
d5-nitrobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	61
OC's in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery 9
Bromofluorobenzene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	95
	QA2A	SE267737.003	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	QA1A	SE267737.001	%	60 - 130%	98
	QA2A	SE267737.003	%	60 - 130%	108
d8-toluene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	107
	QA2A	SE267737.003	%	60 - 130%	113
OCs in Water				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	93
d4-1,2-dichloroethane (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	101
d8-toluene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	81
olatile Petroleum Hydrocarbons in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	95
	QA2A	SE267737.003	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	QA1A	SE267737.001	%	60 - 130%	98
	QA2A	SE267737.003	%	60 - 130%	108
d8-toluene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	107
	QA2A	SE267737.003	%	60 - 130%	113
olatile Petroleum Hydrocarbons in Water				Method: M	E-(AU)-[ENV]AI
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	93
d4-1,2-dichloroethane (Surrogate)	WQA1A	SE267737.002	%	60 - 130%	101
d8-toluene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	81



METHOD BLANKS

SE267737 R0

Method: ME-(AU)-[ENV]AN420

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.

)		
Anions by Ion Chromatography in Water Method: ME-(AU)-[ENV]AN245						
Sample Number	Parameter	Units	LOR	Result		
LB317098.001	Nitrate Nitrogen, NO3-N	mg/L	0.005	<0.005		

Mercury (dissolved) in Water

Mercury (dissolved) in Water Method: ME-(AU)-[ENV]/				NVJAN311(Perth)/AN312
Sample Number	Parameter	Units	LOR	Result
LB316931.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Mercury in Soil			Meth	od: ME-(AU)-[ENV]AN312
Sample Number	Parameter	Units	LOR	Result
LB316969.001	Mercury	mg/kg	0.05	<0.05

Nitrite in Water

Nitrite in Water		Metho	od: ME-(AU)-[ENV]AN277	
Sample Number	Parameter	Units	LOR	Result
LB316964.001	Nitrite Nitrogen, NO2 as N	mg/L	0.005	<0.005

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

	,			
Sample Number	Parameter	Units	LOR	Result
B316963.001	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)	%	-	99
	2-fluorobiphenyl (Surrogate)	%	-	98
	d14-p-terphenyl (Surrogate)	%	-	103

PAH (Polynuclear Aromatic Hydrocarbons) in Water

PAH (Polynuclear Aromatic Hydrocarbons) in Water			Meth	od: ME-(AU)-[ENV]AN420
Sample Number	Parameter	Units	LOR	Result
LB317036.001	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



METHOD BLANKS

SE267737 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.

PAH (Polynuclear Aromatic Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB317036.001 Surrogates		d5-nitrobenzene (Surrogate)	%	-	72
		2-fluorobiphenyl (Surrogate)	%	-	76
		d14-p-terphenyl (Surrogate)	%	-	84
Total Phosphorus by	Total Phosphorus by Kjeldahl Digestion DA in Water			ME-(AU)-[ENV]AN	279/AN293(Sydney only)
Sample Number		Parameter	Units	LOR	Result
LB317096.001				0.02	<0.02

Method: ME-(AU)-[ENV]AN040/AN320 Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Sample Number LOR Result Parameter LB316968.001 Arsenic, As mg/kg <1 1 Cadmium, Cd mg/kg 0.3 < 0.3 Chromium, Cr mg/kg 0.5 < 0.5 0.5 <0.5 Copper, Cu mg/kg Nickel, Ni mg/kg 0.5 < 0.5 Lead, Pb <1 mg/kg 1 Zinc, Zn 2 <2.0 mg/kg Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN318 Result Sample Number Units Parameter LOR LB317031.001 Arsenic µg/L 1 <1 Cadmium <0.1 0.1 µg/L Chromium µg/L 1 <1 Copper <1 µg/L 1 <1 Lead 1 µg/L Nickel µg/L 1 <1 Zinc 5 <5 µg/L TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403 Sample Number Units LOR Result Parameter LB316963.001 TRH C10-C14 mg/kg 20 <20 TRH C15-C28 45 <45 mg/kg <45 TRH C29-C36 45 mg/kg TRH C37-C40 mg/kg 100 <100 TRH C10-C36 Total 110 <110 mg/kg TRH (Total Recoverable Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN403 Sample Number Result Parameter Units LOR LB317036.001 TRH C10-C14 µg/L 50 <50 TRH C15-C28 200 <200 µg/L 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 Units LOR Result Parameter LB316966.001 Monocyclic Aromatic Benzene mg/kg 0.1 <0.1 Hvdrocarbons Toluene 0.1 <0.1 mg/kg Ethylbenzene <0.1 mg/kg 0.1 m/p-xylene mg/kg 0.2 < 0.2 0.1 <0.1 o-xylene mg/kg Polycyclic VOCs Naphthalene (VOC)* <0.1 mg/kg 0.1 Surrogates d4-1,2-dichloroethane (Surrogate) % 119 % 126 d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) % 107 Totals Total BTEX* mg/kg 0.6 <0.6

VOCs in Water Method: ME-(AU)-[ENV]AN433 Sample Number Result Parameter Units LB317116.001 Monocyclic Aromatic Benzene µg/L 0.5 < 0.5 Hydrocarbons Toluene µg/L 0.5 <0.5 Ethylbenzene 0.5 <0.5 µg/L m/p-xylene µg/L 1 <1



METHOD BLANKS

SE267737 R0

Method: ME-(AU)-[ENV]AN433

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)

VOCs in Water (contin	OCs in Water (continued)					
Sample Number		Parameter	Units	LOR	Result	
LB317116.001	Monocyclic Aromatic	o-xylene	μg/L	0.5	<0.5	
	Polycyclic VOCs	Naphthalene (VOC)*	μg/L	0.5	<0.5	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98	
		d8-toluene (Surrogate)	%	-	84	
		Bromofluorobenzene (Surrogate)	%	-	91	
Volatile Petroleum Hyd	drocarbons in Soil			Meth	od: ME-(AU)-[ENV]AN43	
Sample Number		Parameter	Units	LOR	Result	
LB316966.001		TRH C6-C9	mg/kg	20	<20	
	Surrogates	d4-1.2-dichloroethane (Surrogate)	%	-	119	

Volatile Petroleum Hydrocarbons in Water

Sample Number		Parameter	Units	LOR	Result
LB317116.001		TRH C6-C9	μg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	84
		Bromofluorobenzene (Surrogate)	%	-	91



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Anions by Ion Chromatography in Water Method: ME-(AU)-[ENV]AU						ENVJAN245	
Original	Duplicate	Parameter	Units LOR	Original	Duplicate	Criteria %	RPD %
SE267707.001	LB317098.014	Nitrate Nitrogen, NO3-N	mg/L 0.005	0.88	0.85	16	4

ercurv (dissolved) in Water

Mercury (dissolved) in Water Method: ME-(AU)-[ENV]AN311(F				ENVJAN311(P	erth)/AN312			
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267703.001	LB316931.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	140	0

Mercury in Soil

Mercury in Soil Method: ME-(AU)-					ENVJAN312			
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316969.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE267737.003	LB316969.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

								· · · · ·
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316967.011	% Moisture	%w/w	1	14.5	10.5	38	32
SE267737.003	LB316967.021	% Moisture	%w/w	1	14.7	15.3	37	4

Nitrite in Water

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267756.001	LB316964.014	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.17	0.17	18	1
SE267764.007	LB316964.024	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.019	0.018	42	4

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Method: ME-(AU)-IENVIAN002

Method: ME-(AU)-[ENV]AN277

Oniminant	Dunlisses		Deveryorkey	11-24-		Quiningl			DDD 0/
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316963.014		Naphthalene	mg/kg	0.1	0.1	0.1	113	32
			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	0.4	0.4	54	10
			Acenaphthene	mg/kg	0.1	0.3	0.2	71	43
			Fluorene	mg/kg	0.1	0.4	0.2	65	43
			Phenanthrene	mg/kg	0.1	4.9	4.0	32	19
			Anthracene	mg/kg	0.1	1.6	1.3	37	21
			Fluoranthene	mg/kg	0.1	11	11	31	0
			Pyrene	mg/kg	0.1	12	10	31	15
			Benzo(a)anthracene	mg/kg	0.1	4.7	4.0	32	15
			Chrysene	mg/kg	0.1	4.7	4.1	32	12
			Benzo(b&j)fluoranthene	mg/kg	0.1	6.5	5.7	32	14
			Benzo(k)fluoranthene	mg/kg	0.1	2.4	2.2	34	10
			Benzo(a)pyrene	mg/kg	0.1	5.8	5.1	32	13
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	4.2	3.7	33	13
			Dibenzo(ah)anthracene	mg/kg	0.1	0.7	0.6	46	12
			Benzo(ghi)perylene	mg/kg	0.1	4.7	4.1	32	15
			Carcinogenic PAHs, BaP TEQ <lor=0*< td=""><td>mg/kg</td><td>0.2</td><td>8.4</td><td>7.3</td><td>13</td><td>13</td></lor=0*<>	mg/kg	0.2	8.4	7.3	13	13
			Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>mg/kg</td><td>0.2</td><td>8.4</td><td>7.3</td><td>13</td><td>13</td></lor=lor>	mg/kg	0.2	8.4	7.3	13	13
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td>8.4</td><td>7.3</td><td>14</td><td>13</td></lor=lor*<>	mg/kg	0.3	8.4	7.3	14	13
			Total PAH (18)	mg/kg	0.8	64	57	30	12
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
		Ŭ	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	_	0.5	0.5	30	2
SE267737.003	LB316963.023		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
			i iuviciic	iiig/kg	0.1	-0.1	-0.1	200	0



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

PAH (Polynuclear	Aromatic Hydrocarbons) in Soil	continued)				Meth	od: ME-(AU)-	(ENVJAN42)
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267737.003	LB316963.023	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	<0.1	<0.1	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		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	200	0
		Carcinogenic PAHs, BaP TEQ <lor=0*< td=""><td>mg/kg</td><td>0.2</td><td><0.2</td><td><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 2*<="" td=""><td>mg/kg</td><td>0.2</td><td><0.2</td><td><0.2</td><td>175</td><td>0</td></lor=lor>	mg/kg	0.2	<0.2	<0.2	175	0
		Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td><0.3</td><td><0.3</td><td>134</td><td>0</td></lor=lor*<>	mg/kg	0.3	<0.3	<0.3	134	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
	Surroga	es d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	3
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN420 Original Duplicate LOR Original Duplicate Criteria % RPD % Units Parameter SE267734.004 LB317036.028 Naphthalene 0.1 <0.1 <0.1 200 0 µg/L 200 2-methylnaphthalene µg/L 0.1 < 0.1 < 0.1 0 1-methylnaphthalene µg/L 0.1 < 0.1 <0.1 200 0 Acenaphthylene 0.1 <0.1 <0.1 200 0 µg/L < 0.1 < 0.1 200 0 Acenaphthene µg/L 0.1 Fluorene µg/L 0.1 <0.1 <0.1 200 0 Phenanthrene 0.1 <0.1 <0.1 200 0 µg/L <0.1 200 Anthracene µg/L 0.1 < 0.1 0 Fluoranthene µg/L 0.1 <0.1 <0.1 200 0 Pyrene 0.1 <0.1 <0.1 200 0 µg/L Benzo(a)anthracene µg/L 0.1 < 0.1 < 0.1 200 0 Chrysene 0.1 <0.1 <0.1 200 0 µg/L Benzo(b&j)fluoranthene <0.1 <0.1 200 0 0.1 µg/L 200 Benzo(k)fluoranthene µg/L 0.1 < 0.1 < 0.1 0 0.1 <0.1 <0.1 200 0 Benzo(a)pyrene µg/L Indeno(1,2,3-cd)pyrene 0.1 <0.1 <0.1 200 0 µg/L < 0.1 < 0.1 200 0 Dibenzo(ah)anthracene µg/L 0.1 Benzo(ghi)perylene µg/L 0.1 <0.1 < 0.1 200 0 Surrogates d5-nitrobenzene (Surrogate) 0.4 0.4 30 1 µg/L 2-fluorobiphenyl (Surrogate) 0.4 0.4 30 µg/L 4 d14-p-terphenyl (Surrogate) µg/L 0.4 0.4 30 1 pH in water Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267741.001	LB316868.008	pH**	pH Units	-	6.8	6.8	16	0

TKN Kieldahl Digestion by Discrete Analyser

in a rigolaan bigo								
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267652.001	LB317096.028	Total Kjeldahl Nitrogen	mg/L	0.05	90	80	15	12
SE267710.002	LB317096.014	Total Kjeldahl Nitrogen	mg/L	0.05	0.58	0.59	24	1

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[ENV]AN279/AN293(Sydne						Sydney only)		
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267652.001	LB317096.028	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	12	13	15	8
SE267710.002	LB317096.014	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	0.16	0.17	27	7

Method: ME_(ALI)_IENV/IAN292



Method: ME-(AU)-[ENV]AN318

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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Total Recoverable	Elements in Soil/Waste Solids	Materials by ICPOES				Method: ME-	-(AU)-[ENV]AI	1040/AN320
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316968.014	Arsenic, As	mg/kg	1	5	4	52	2
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	12	26	33	72 ②
		Copper, Cu	mg/kg	0.5	19	20	33	4
		Nickel, Ni	mg/kg	0.5	5.4	5.5	39	1
		Lead, Pb	mg/kg	1	23	21	35	11
		Zinc, Zn	mg/kg	2	38	44	35	15
SE267737.003	LB316968.024	Arsenic, As	mg/kg	1	<1	<1	200	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	0.6	0.6	111	2
		Copper, Cu	mg/kg	0.5	<0.5	<0.5	200	0
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
	Lead, Pb	mg/kg	1	1	1	118	17	
		Zinc, Zn	mg/kg	2	<2.0	<2.0	200	0

Trace Metals (Dissolved) in Water by ICPMS

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267686.001	LB317031.014	Arsenic	µg/L	1	<1	<1	200	0
		Cadmium	µg/L	0.1	<0.1	<0.1	170	0
		Chromium	μg/L	1	<1	<1	200	0
		Copper	µg/L	1	16	17	21	1
		Lead	μg/L	1	<1	<1	200	0
		Nickel	μg/L	1	25	25	19	1
		Zinc	μg/L	5	8	7	82	20
SE267737.002	LB317031.023	Arsenic	μg/L	1	<1	<1	200	0
		Cadmium	μg/L	0.1	<0.1	<0.1	200	0
		Chromium	μg/L	1	1	<1	124	5
		Copper	μg/L	1	3	3	49	3
		Lead	μg/L	1	<1	<1	200	0
		Nickel	μg/L	1	3	3	47	2
		Zinc	μg/L	5	64	64	23	1

TRH (Total Recoverable Hydrocarbons) in Soil

RH (Total Recov	erable Hydrocarbons) in Soil					Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316963.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	440	180	45	82 ②
			TRH C29-C36	mg/kg	45	140	96	68	39
			TRH C37-C40	mg/kg	100	<100	<100	192	0
			TRH C10-C36 Total	mg/kg	110	580	280	56	70 ②
			TRH >C10-C40 Total (F bands)	mg/kg	210	650	250	77	90 @
		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	530	250	53	72 ②
			TRH >C34-C40 (F4)	mg/kg	120	130	<120	149	6
SE267737.003	LB316963.023		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
RH (Total Recov	erable Hydrocarbons) in Water					Meth	od: ME-(AU)-	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD 9
SE267734.004	LB317036.028		TRH C10-C14	µg/L	50	<50	<50	136	0
			TRH C15-C28	µg/L	200	210	210	124	3

TRH C29-C36

TRH C37-C40

TRH C10-C40

0

0

6

200

200

320

µg/L

µg/L

µg/L

<200

<200

<320

<200

<200

340

200

200

128



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Water (continued)

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267734.004	LB317036.028	TRH F Bands	TRH >C10-C16	µg/L	60	74	73	112	1
			TRH >C10-C16 - Naphthalene (F2)	μg/L	60	74	73	112	1
			TRH >C16-C34 (F3)	μg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	μg/L	500	<500	<500	200	0
				P9/L	000				
OC's in Soil							Metho	d: ME-(AU)	-[ENV]AN
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD የ
SE267698.004	LB316966.014	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 (VOC)*	mg/kg	0.1	0.1	<0.1	143	6
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	7.9	50	14
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.1	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.6	50	6
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE267737.003	LB316966.023	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	10.3	50	5
			d8-toluene (Surrogate)	mg/kg	-	11.3	10.5	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.3	50	7
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
/OCs in Water							Metho	d: ME-(AU)	
	Dunlisste		Deveryorker	1114		Oni si se a l			
Original	Duplicate	Manager	Parameter	Units	LOR	Original		Criteria %	
SE267650.001	LB317116.023	Monocyclic	Benzene	μg/L	0.5	0.0127156483		200	0
		Aromatic	Toluene	µg/L	0.5	0.0143019861		200	0
			Ethylbenzene	µg/L	0.5	0.0038307797		200	0
			m/p-xylene	µg/L	1		0.0363560520	200	0
			o-xylene	µg/L	0.5		0.0178497549	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.1157857607		200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.305203253		30	11
			d8-toluene (Surrogate)	µg/L	-		8.8254690836	30	5
			Bromofluorobenzene (Surrogate)	µg/L	-	9.1646668879		30	23
		Totals	Total BTEX	µg/L	3	0	0	200	0
SE267794.001	LB317116.024	Monocyclic	Benzene	μg/L	0.5	0.0131387877		200	0
		Aromatic	Toluene	µg/L	0.5	0.0119125457	0.0161932992	200	0
			Ethylbenzene	µg/L	0.5	0.0038030634	0.0097119470	200	0
			m/p-xylene	µg/L	1	0.0107407601	0.0201121277	200	0
			o-xylene	µg/L	0.5	0.0096225159	0.0106316375	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.1140624936	0	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1807299165	9.9313214441	30	2
			d8-toluene (Surrogate)	µg/L	-	8.2849951936	9.8150472586	30	17
			Bromofluorobenzene (Surrogate)	μg/L	-	9.4336274466	8.1464452711	30	15
		Totals	Total BTEX	μg/L	3	0	0	200	0
olatile Petroleum	Hydrocarbons in Soi	I					Metho	d: ME-(AU)	
			Parameter	Units	LOR	Original		Criteria %	
				mg/kg	25	<25	<25	200	RPD 1
Original	Duplicate					<25			
Original	LB316966.014		TRH C6-C10						
Original			TRH C6-C9	mg/kg	20	<20	<20	200	0
Original		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg	20	<20 9.1	<20 7.9	200 50	0 14
Original SE267698.004		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	mg/kg mg/kg mg/kg	20 - -	<20 9.1 9.5	<20 7.9 9.1	200 50 50	0 14 4
Original		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg	20	<20 9.1	<20 7.9	200 50	0 14

mg/kg

mg/kg

0.1

25

<0.1

<25

<0.1

<25

200

200

VPH F Bands

Benzene (F0)

TRH C6-C10 minus BTEX (F1)

0

0



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Soil (continued)

olatile Petroleum	Hydrocarbons in Soi	il (continued)					Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267737.003	LB316966.023		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	-	10.8	10.3	50	5
			d8-toluene (Surrogate)	mg/kg	-	11.3	10.5	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.3	50	7
		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
olatile Petroleum	Hydrocarbons in Wa	iter					Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267650.001	LB317116.023		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.3	10.1	30	11
			d8-toluene (Surrogate)	µg/L	-	8.4	8.8	30	5
			Bromofluorobenzene (Surrogate)	μg/L	-	9.2	7.3	30	23
		VPH F Bands	Benzene (F0)	μg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE267794.001	LB317116.024		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	9.9	30	2
			d8-toluene (Surrogate)	µg/L	-	8.3	9.8	30	17
			Bromofluorobenzene (Surrogate)	µg/L	-	9.4	8.1	30	15
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0



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.

Anions by Ion Chromatography in Water Method: ME-(AU)-[ENV]AN2								
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB317098.002	Nitrate Nitrogen, NO3-N	mg/L	0.005	1.9	2	80 - 120	96	

Mercury in Soil					N	lethod: ME-(A	U)-[ENV]AN312
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316969.002	Mercury	mg/kg	0.05	0.19	0.2	80 - 120	95

litrite in Water

Nitrite in Water					N	lethod: ME-(A	U)-[ENV]AN277
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316964.002	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.11	0.1	80 - 120	113

PAH (Polynuclear Aromatic Hydr	ocarbons) in Soil				N	lethod: ME-(A	J)-[ENV]AN420
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316963.002	Naphthalene	mg/kg	0.1	4.7	4	60 - 140	118
	Acenaphthylene	mg/kg	0.1	4.9	4	60 - 140	122
	Acenaphthene	mg/kg	0.1	4.7	4	60 - 140	117
	Phenanthrene	mg/kg	0.1	4.9	4	60 - 140	122
	Anthracene	mg/kg	0.1	5.3	4	60 - 140	131
	Fluoranthene	mg/kg	0.1	4.6	4	60 - 140	115
	Pyrene	mg/kg	0.1	5.2	4	60 - 140	131
	Benzo(a)pyrene	mg/kg	0.1	5.6	4	60 - 140	139
Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	99
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
PAH (Polynuclear Aromatic Hydro	ocarbons) in Water				N	lethod: ME-(A	J)-[ENV]AN420
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317036.002	Naphthalene	µg/L	0.1	30	40	60 - 140	74
	Acenaphthylene	µg/L	0.1	33	40	60 - 140	82
	Acenaphthene	µg/L	0.1	31	40	60 - 140	77
	Phenanthrene	µg/L	0.1	30	40	60 - 140	75
	Anthracene	µg/L	0.1	30	40	60 - 140	74
	Fluoranthene			00	40		
	Fluoranthene	µg/L	0.1	29	40	60 - 140	73
	Pyrene	µg/L	0.1	29 26	40	60 - 140 60 - 140	73 66
Surrogates	Pyrene	µg/L	0.1	26	40	60 - 140	66
Surrogates	Pyrene Benzo(a)pyrene	μg/L μg/L	0.1 0.1	26 35	40 40	60 - 140 60 - 140	66 87
Surrogates	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate)	μg/L μg/L μg/L	0.1 0.1 -	26 35 0.3	40 40 0.5	60 - 140 60 - 140 40 - 130	66 87 56
Surrogates	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate)	μg/L μg/L μg/L μg/L	0.1 0.1 - -	26 35 0.3 0.4	40 40 0.5 0.5 0.5	60 - 140 60 - 140 40 - 130 40 - 130 40 - 130	66 87 56 80 64
	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate)	μg/L μg/L μg/L μg/L	0.1 0.1 - -	26 35 0.3 0.4	40 40 0.5 0.5 0.5	60 - 140 60 - 140 40 - 130 40 - 130 40 - 130	66 87 56 80

Total Phosphorus by Kjeldahl Digestion DA in Water

Total Phosphorus by Kjeldahl Digestio	osphorus by Kjeldahl Digestion DA in Water				: ME-(AU)-[EN	/]AN279/AN29	3(Sydney only)
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317096.002	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	1.2	1	80 - 120	118

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Total Recoverable Elements	in Soil/Waste Solids/Materials by ICPOES				Method: ME-(AU)-[ENV]AN040/A					
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %			
LB316968.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	104			
	Cadmium, Cd	mg/kg	0.3	4.6	4.81	70 - 130	95			
	Chromium, Cr	mg/kg	0.5	41	38.31	80 - 120	107			
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	100			
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	99			
	Lead, Pb	mg/kg	1	89	89.9	80 - 120	99			



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.

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recoverv
LB316968.002		Zinc, Zn	mg/kg	2	270	273	80 - 120	97
ace Metals (Diss	olved) in Water by	ICPMS					Method: ME-(Al	J)-[ENV]AN
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
.B317031.002		Arsenic	µg/L	1	20	20	80 - 120	100
		Cadmium	μg/L	0.1	21	20	80 - 120	104
		Chromium	μg/L	1	22	20	80 - 120	109
		Copper	μg/L	1	22	20	80 - 120	109
		Lead	μg/L	1	20	20	80 - 120	102
		Nickel	μg/L	1	21	20	80 - 120	106
		Zinc	μg/L	5	23	20	80 - 120	115
RH (Total Recove	arable Hydrocarbor	ns) in Soil					Method: ME-(Al	J)-[ENV]AN
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
_B316963.002		TRH C10-C14	mg/kg	20	54	40	60 - 140	136
		TRH C15-C28	mg/kg	45	55	40	60 - 140	138
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	91
	TRH F Bands	TRH >C10-C16	mg/kg	25	55	40	60 - 140	138
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	119
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85
RH (Total Recove	arable Hydrocarbor	ns) in Water					Method: ME-(Al	J)-[ENV]AN
Sample Number	-	Parameter	Units	LOR	Result	Expected	Criteria %	Recoverv
.B317036.002		TRH C10-C14	μg/L	50	1200	1200	60 - 140	101
		TRH C15-C28	μg/L	200	1400	1200	60 - 140	121
		TRH C29-C36	μg/L	200	1500	1200	60 - 140	121
	TRH F Bands	TRH >C10-C16	μg/L	60	1400	1200	60 - 140	113
		TRH >C16-C34 (F3)	μg/L	500	1500	1200	60 - 140	122
		TRH >C34-C40 (F4)	μg/L	500	740	600	60 - 140	123
OC's in Soil							Method: ME-(Al	J)-[ENV]AN
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
_B316966.002	Monocyclic	Benzene	mg/kg	0.1	4.1	5	60 - 140	83
	Aromatic	Toluene	mg/kg	0.1	5.9	5	60 - 140	118
							00 - 140	
		Ethylbenzene	mg/kg	0.1	4.9	5	60 - 140	97
		_Ethylbenzene m/p-xylene	mg/kg mg/kg	0.1	4.9 10			97 102
		m/p-xylene	mg/kg			5	60 - 140	
	Surrogates	m/p-xylene o-xylene	mg/kg mg/kg	0.2	10 5.1	5 10 5	60 - 140 60 - 140 60 - 140	102 102
	Surrogates	m/p-xylene	mg/kg mg/kg mg/kg	0.2 0.1	10	5 10	60 - 140 60 - 140	102
	Surrogates	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg	0.2 0.1 -	10 5.1 10.8	5 10 5 10	60 - 140 60 - 140 60 - 140 70 - 130	102 102 108
DCs in Water	Surrogates	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	mg/kg mg/kg mg/kg mg/kg	0.2 0.1 -	10 5.1 10.8 11.7	5 10 5 10 10 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130	102 102 108 117 93
		m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	mg/kg mg/kg mg/kg mg/kg	0.2 0.1 -	10 5.1 10.8 11.7	5 10 5 10 10 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130	102 102 108 117 93 J)-[ENV]AN
Sample Number		m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg	0.2 0.1 - -	10 5.1 10.8 11.7 9.3	5 10 5 10 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Wethod: ME-(Al	102 102 108 117 93
Sample Number		m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter	mg/kg mg/kg mg/kg mg/kg mg/kg Units	0.2 0.1 - - LOR	10 5.1 10.8 11.7 9.3 Result	5 10 5 10 10 10 20 Expected	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Wethod: ME-(Al Criteria %	102 102 108 117 93 J)-[ENV]AN Recovery
Sample Number	Monocyclic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L	0.2 0.1 - - - LOR 0.5	10 5.1 10.8 11.7 9.3 Result 57	5 10 5 10 10 10 Expected 45.45	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 70 - 130 Method: ME-(Al Criteria % 60 - 140	102 102 108 117 93 J)-[ENV]AN Recovery 126
Sample Number	Monocyclic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L	0.2 0.1 - - - LOR 0.5 0.5	10 5.1 10.8 11.7 9.3 Result 57 51	5 10 5 10 10 10 5 5 5 5 5 5 5 45.45	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Wethod: ME-(Al Criteria % 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recovery 126 112
Sample Number	Monocyclic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L	0.2 0.1 - - - - - - - - - - - - - - - - - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57	5 10 5 10 10 10 10 Expected 45.45 45.45	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recovery 126 112 125
Sample Number	Monocyclic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L	0.2 0.1 - - - - - - - - - - - - - - - - - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120	5 10 5 10 10 10 10 Expected 45.45 45.45 45.45 90.9	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137
Sample Number	Monocyclic Aromatic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63	5 10 5 10 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138
Sample Number	Monocyclic Aromatic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L μg/L	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5 -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5	5 10 5 10 10 10 45.45 45.45 45.45 45.45 90.9 45.45 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recover 126 112 125 137 138 85
Sample Number	Monocyclic Aromatic	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L μg/L μg/L	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5 - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Wethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130	102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 85 82 98
Sample Number B317116.002	Monocyclic Aromatic Surrogates Hydrocarbons in S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L μg/L μg/L	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5 - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130	102 102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 82 98 J)-[ENV]AN
Sample Number .B317116.002 olatile Petroleum Sample Number	Monocyclic Aromatic Surrogates Hydrocarbons in S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) omofluorobenzene (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L μg/L μg/L μg/L	0.2 0.1 - - - LOR 0.5 0.5 0.5 1 0.5 - - - - - - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al	102 102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 82 98 J)-[ENV]AN
Sample Number .B317116.002 olatile Petroleum Sample Number	Monocyclic Aromatic Surrogates Hydrocarbons in S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) oblic Parameter	mg/kg units µg/L	0.2 0.1 - - - LOR 0.5 0.5 0.5 1 0.5 - - - LOR LOR	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result	5 10 5 10 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria %	102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 82 98 J)-[ENV]AN Recovery
Sample Number B317116.002 Diattle Petroleum Sample Number	Monocyclic Aromatic Surrogates Hydrocarbons in S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Bromofluorobenzene (Surrogate) Oll Parameter TRH C6-C10	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg units µg/L	0.2 0.1 - - - LOR 0.5 0.5 0.5 1 0.5 - - - LOR 25	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result 77	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10 20 8	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140	102 108 117 93 J)-[ENV]Ar Recover 126 112 125 137 138 85 82 98 J)-[ENV]Ar Recover 83
Sample Number .B317116.002 olatile Petroleum Sample Number	Monocyclic Aromatic Surrogates Hydrocarbons In S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) orxylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Bromofluorobenzene (Surrogate) TRH C6-C10 TRH C6-C3	mg/kg µg/L µg/L µg/L µg/L	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5 - - - LOR 25 20	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result 77 67	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10 Expected 92.5 80	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130 70 - 130	102 102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 82 98 J)-[ENV]AN Recovery 83 83
Sample Number B317116.002 Diatile Petroleum Sample Number	Monocyclic Aromatic Surrogates Hydrocarbons In S	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Or Parameter TRH C6-C10 TRH C6-C9 d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg units µg/L µg/	0.2 0.1 - - LOR 0.5 0.5 0.5 1 0.5 - - - LOR 25 20 -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result 77 67 10.8	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10 20 5 80 80 10	60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 Criteria % 60 - 140 60 - 140 Criteria % 60 - 140 60 - 140 Criteria % 60 - 140 60 - 140	102 108 117 93 J)-[ENV]AN Recovery 126 112 125 137 138 85 82 98 J)-[ENV]AN Recovery 83 83 108
sample Number B317116.002 Sattle Petroleum Sample Number B316966.002	Monocyclic Aromatic Surrogates Hydrocarbons in S Surrogates	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ork d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate) Brameter TRH C6-C10 TRH C6-C9 d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate) Bromofluorobenzene (Surrogate) TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg units µg/L µg/kg mg/kg mg/kg mg/kg	0.2 0.1 - - - - - - - - - - - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result 77 67 10.8 9.3	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10 Expected 92.5 80 10 10 10 10 10	60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Kethod: ME-(AI Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 Yethod: ME-(AI Criteria % 60 - 140 70 - 130 Yethod: ME-(AI Criteria % 60 - 140 70 - 130 70 - 130 70 - 130	102 102 108 117 93 J)-[ENV]AI Recover 126 112 125 137 138 85 82 98 J)-[ENV]AI Recover 83 83 108 93 74
Sample Number LB316966.002	Monocyclic Aromatic Surrogates Hydrocarbons in S Surrogates VPH F Bands Hydrocarbons in V	m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Parameter Benzene Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ork d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate) Brameter TRH C6-C10 TRH C6-C9 d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate) Bromofluorobenzene (Surrogate) TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg units µg/L µg/kg mg/kg mg/kg mg/kg	0.2 0.1 - - - - - - - - - - - - -	10 5.1 10.8 11.7 9.3 Result 57 51 57 120 63 8.5 8.2 9.8 Result 77 67 10.8 9.3	5 10 5 10 10 10 Expected 45.45 45.45 45.45 90.9 45.45 10 10 10 10 Expected 92.5 80 10 10 10 10 10	60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 To - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130 To - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130 70 -	102 102 108 117 93 J)-[ENV]AI Recover 126 112 125 137 138 85 82 98 J)-[ENV]AI Recover 83 83 108 93 74



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 H	Hydrocarbons in V	/ater (continued)				Method: ME-(AU)-[ENV]AN				
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %		
LB317116.002		TRH C6-C10	μg/L	50	860	946.63	60 - 140	91		
		TRH C6-C9	μg/L	40	730	818.71	60 - 140	89		
	Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	8.5	10	60 - 140	85		
		d8-toluene (Surrogate)	μg/L	-	8.2	10	70 - 130	82		
		Bromofluorobenzene (Surrogate)	μg/L	-	9.8	10	70 - 130	98		
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	μg/L	50	510	639.67	60 - 140	79		



MATRIX SPIKES

SE267737 R0

Method: ME-(AU)-[ENV]AN420

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		Met	hod: ME-(AU)-[ENVJAN311	(Perth)/AN312	
QC Sample Sample Number Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267425A.001 LB316931.004 Mercury	mg/L	0.0001	0.0023	<0.0001	0.008	118

Mercury in Soil

Mercury in Soil				Met	hod: ME-(AU	J)-[ENV]AN312		
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267760.001	LB316969.004	Mercury	mg/kg	0.05	0.26	0.11	0.2	79

Nitrite in Water Method: ME-					iod: ME-(AU	J)-[ENV]AN277		
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267709.001	LB316964.004	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.086	<0.005	0.1	87

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

C Sample									-
	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
E267760.001	LB316963.004		Naphthalene	mg/kg	0.1	4.6	<0.1	4	115
			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	4.9	<0.1	4	121
			Acenaphthene	mg/kg	0.1	4.7	<0.1	4	117
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.9	<0.1	4	122
			Anthracene	mg/kg	0.1	5.2	<0.1	4	130
			Fluoranthene	mg/kg	0.1	4.6	<0.1	4	113
			Pyrene	mg/kg	0.1	5.0	<0.1	4	124
			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	5.5	<0.1	4	137
			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>5.5</td><td><0.2</td><td>-</td><td>-</td></lor=0*<>	TEQ (mg/kg)	0.2	5.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>5.6</td><td><0.2</td><td>-</td><td>-</td></lor=lor>	TEQ (mg/kg)	0.2	5.6	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>5.7</td><td><0.3</td><td>-</td><td>-</td></lor=lor*<>	TEQ (mg/kg)	0.3	5.7	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	39	<0.8	-	-
	_	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	94
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	99
			d14-p-terphenyl (Surrogate)	mg/kg	_	0.5	0.5	-	103
				marina		0.5	0.0		100
tal Recoverabl	e Elements in Soil/Waste	e Solids/Mater				0.5		-(AU)-[ENV]	
		e Solids/Mater	ials by ICPOES	Units	LOR	Result	Method: ME		AN040/AN32
C Sample	e Elements in Soil/Waster Sample Number LB316968.004	e Solids/Mater		Units		Result		Spike	AN040/AN32
C Sample	Sample Number	e Solids/Mater	tals by ICPOES Parameter Arsenic, As	Units mg/kg	LOR 1	Result 55	Method: ME Original 11	Spike 50	AN040/AN32 Recovery% 87
C Sample	Sample Number	e Solids/Mater	t <mark>ials by ICPOES</mark> Parameter	Units mg/kg mg/kg	LOR	Result	Method: ME Original	Spike	AN040/AN32 Recovery% 87 87
C Sample	Sample Number	e Solids/Mater	tals by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr	Units mg/kg mg/kg mg/kg	LOR 1 0.3 0.5	Result 55 44 71	Method: ME Original 11 1.1 35	Spike 50 50 50	AN040/AN32 Recovery% 87 87 73
C Sample	Sample Number	e Solids/Mater	tals by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu	Units mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5 0.5	Result 55 44 71 100	Method: ME Original 11 1.1 35 64	Spike 50 50 50 50 50	AN040/AN32 Recovery® 87 87 73 73
C Sample	Sample Number	e Solids/Mater	tals by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5	Result 55 44 71 100 51	Method: ME Original 11 1.1 35 64 6.9	Spike 50 50 50 50 50 50	AN040/AN32 Recovery 87 87 73 73 89
C Sample	Sample Number	e Solids/Mater	ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5 0.5 0.5	Result 55 44 71 100	Method: ME Original 11 1.1 35 64	Spike 50 50 50 50 50	AN040/AN32 Recovery 87 87 73 73 89 5 @
C Sample 2267760.001	Sample Number LB316968.004		tals by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5 0.5 0.5 1	Result 55 44 71 100 51 240	Method: ME: Original 11 1.1 35 64 6.9 230 180	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50	AN040/AN32 Recovery 87 87 73 73 89 5 © 57 ©
C Sample E267760.001	Sample Number		ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5 0.5 0.5 1	Result 55 44 71 100 51 240	Method: ME: Original 11 1.1 35 64 6.9 230 180	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50	AN040/AN32 Recovery 87 87 73 73 73 89 5 © 57 ©
C Sample 2267760.001 Ice Metals (Dis C Sample	Sample Number LB316968.004 ssolved) in Water by ICP		ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 1 0.3 0.5 0.5 0.5 1 2	Result 55 44 71 100 51 240 200	Method: ME- Original 11 1.1 35 64 6.9 230 180 Meth	Spike 50 50 50 50 50 50 50 50 0d: ME-(AU	AN040/AN32 Recovery 87 87 73 73 73 89 5 © 57 ©
C Sample E267760.001 ace Metals (Dia C Sample	Sample Number LB316968.004 seolved) in Water by ICP Sample Number		tals by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Units µg/L	LOR 1 0.3 0.5 0.5 0.5 1 2 LOR	Result 55 44 71 100 51 240 200 Result	Method: ME: Original 11 1.1 35 64 6.9 230 180 Method Original	Spike 50 50 50 50 50 50 50 50 50 50	AN040/AN32 Recovery 87 87 73 73 73 89 5 © 57 © 57 © CENVJAN31 Recovery
C Sample 2267760.001 Ice Metals (Dis C Sample	Sample Number LB316968.004 seolved) in Water by ICP Sample Number		ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic	Units mg/kg mg/kg	LOR 1 0.3 0.5 0.5 0.5 1 2 LOR 1	Result 55 44 71 100 51 240 200 Result 22	Method: ME- Original 11 1.1 35 64 6.9 230 180 Method Original <1	Spike 50 50 50 50 50 50 50 50 50 0d: ME-(AU Spike 20	AN040/AN32 Recovery 87 87 73 73 89 5 © 57 © 57 ©)-[ENV]AN31 Recovery 108
C Sample E267760.001 Acce Metals (Dia C Sample	Sample Number LB316968.004 seolved) in Water by ICP Sample Number		ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic Cadmium Copper	Units mg/kg mg/kg	LOR 1 0.3 0.5 0.5 1 2 LOR 1 0.1	Result 55 44 71 100 51 240 200 Result 22 20 20 20	Method: ME- Original 11 1.1 35 64 6.9 230 180 Method Original <1	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50	AN040/AN32 Recovery% 87 87 73 73 89 5 @ 57 @)-[ENV]AN318 Recovery% 108 101 98
C Sample E267760.001	Sample Number LB316968.004 seolved) in Water by ICP Sample Number		ials by ICPOES Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic Cadmium	Units mg/kg mg/kg	LOR 1 0.3 0.5 0.5 1 2 LOR 1 0.1 1	Result 55 44 71 100 51 240 200	Method: ME- Original 11 1.1 35 64 6.9 230 180 Method Original <1	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50	AN040/AN32(Recovery% 87 73 73 73 89 5 @ 57 @)-[ENV]AN31[Recovery% 108 101



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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

RFI (TOTAL Reco	verable Hydrocarbon	is) in Soll					Me	thod: ME-(AU)-[ENVJAN4
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery
SE267760.001	LB316963.004		TRH C10-C14	mg/kg	20	51	<20	40	119
			TRH C15-C28	mg/kg	45	55	<45	40	117
			TRH C29-C36	mg/kg	45	<45	<45	40	75
			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	TRH >C10-C16	mg/kg	25	52	<25	40	121
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	52	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	93
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
OC's in Soil							Me	thod: ME-(AU)-[ENVIAN4
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recover
E267760.001	LB316966.004		Benzene		0.1	4.2	<0.1	5 Spike	84
5E207700.001	LD310900.004	Monocyclic Aromatic		mg/kg					
		Aromatic		mg/kg	0.1	6.3	<0.1	5	127
			Ethylbenzene	mg/kg	0.1	5.3	<0.1	5	106
			m/p-xylene	mg/kg	0.2	12	<0.2	10	119
			o-xylene	mg/kg	0.1	6.0	<0.1	5	119
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	10.7	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.1	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.9	10	81
		Totals	Total BTEX*	mg/kg	0.6	34	<0.6	-	-
			Total Xylenes*	mg/kg	0.3	18	<0.3	-	-
OCs in Water							Me	thod: ME-(AU	I)-[ENV]AN4
QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%	6
SE267649.001	LB317116.022	Monocyclic	Benzene	μg/L	0.5	0.01262657330	45.45	108	
		Aromatic	Toluene	μg/L	0.5	0.00995740420	45.45	107	
			Ethylbenzene	μg/L	0.5	0.00442951060	45.45	106	
			m/p-xylene	μg/L	1	0.01311410169	90.9	105	
			o-xylene	µg/L	0.5	0.00523152792	45.45	103	-
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.12118071301	-	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.52461319074	-	92	_
		ů.	d8-toluene (Surrogate)	μg/L	-	8.20097877352	-	93	_
			Bromofluorobenzene (Surrogate)	μg/L	_	9.24957541035	-	104	-
		Totals	Total BTEX	μg/L	3	0	-	-	-
				F3'-	-			0	
	m Hydrocarbons in S							thod: ME-(AU	
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recover
SE267760.001	LB316966.004		TRH C6-C10	mg/kg	25	120	<25	92.5	129
			TRH C6-C9	mg/kg	20	100	<20	80	130
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	10.7	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.1	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.9	-	81
		VPH F	Benzene (F0)	mg/kg	0.1	4.2	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	87	<25	62.5	138
olatile Petroleu	m Hydrocarbons in W	/ater					Me	thod: ME-(AU	
QC Sample	-		Devenueder	l Incide	LOR	Original			
	Sample Number		Parameter	Units			Spike	Recovery%	0
E267649.001	LB317116.022		TRH C6-C10	μg/L	50	0	946.63	84	-
			TRH C6-C9	μg/L	40	0	818.71	87	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	10.52461319074	-	92	-
			d8-toluene (Surrogate)	µg/L	-	8.20097877352	-	93	-
			December of the second of the	ug/l	-	9.24957541035	-	104	1
			Bromofluorobenzene (Surrogate)	μg/L					-
		VPH F	Benzene (F0) TRH C6-C10 minus BTEX (F1)	μg/L μg/L	0.5	0.01262657330	-	- 79	_



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

No matrix spike duplicates were required for this job.



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: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- 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.
- ④ 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.
- ⁽⁷⁾ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- [®] LOR was raised due to high conductivity of the sample (required dilution).
- t Refer to relevant report comments for further information.

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ANALYTICAL REPORT





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Project	S00360 DSI Eileen O'Connor	SGS Reference	SE267737 R0
Order Number	S00360	Date Received	4/7/2024
Samples	3	Date Reported	11/7/2024

COMMENTS

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

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VOC's in Soil [AN433] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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 (VOC)*	mg/kg	0.1	<0.1	<0.1



Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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



TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			- 1/7/2024	- 2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
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><0.2</td><td><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><0.3</td><td><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><0.2</td><td><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



Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
Arsenic, As	mg/kg	1	<1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	<0.5	0.6
Copper, Cu	mg/kg	0.5	<0.5	<0.5
Lead, Pb	mg/kg	1	<1	1
Nickel, Ni	mg/kg	0.5	<0.5	<0.5
Zinc, Zn	mg/kg	2	<2.0	<2.0



Mercury in Soil [AN312] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
				-
				2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
Mercury	mg/kg	0.05	<0.05	<0.05



Moisture Content [AN002] Tested: 5/7/2024

			QA1A	QA2A
			SOIL	SOIL
			-	-
			1/7/2024	2/7/2024
PARAMETER	UOM	LOR	SE267737.001	SE267737.003
% Moisture	%w/w	1	10.0	14.7



VOCs in Water [AN433] Tested: 8/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
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 (VOC)*	µg/L	0.5	<0.5



Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
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: 8/7/2024

			WQA1A
			WATER
			-
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
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



SE267737 R0

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 8/7/2024

			WQA1A WATER
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
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 μg/L	0.1	<0.1
Pyrene	μg/L	0.1	<0.1
Benzo(a)anthracene	μg/L μg/L	0.1	<0.1
Chrysene	µg/L	0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1
Benzo(k)fluoranthene	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
Total PAH (18)	µg/L	1	<1



Total Phosphorus by Kjeldahl Digestion DA in Water [AN279/AN293(Sydney only)] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	<0.02



pH in water [AN101] Tested: 4/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
pH**	No unit	-	6.6



Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 8/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Arsenic	µg/L	1	<1
Cadmium	µg/L	0.1	<0.1
Chromium	µg/L	1	1
Copper	µg/L	1	3
Lead	µg/L	1	<1
Nickel	µg/L	1	3
Zinc	µg/L	5	64



Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 5/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Mercury	mg/L	0.0001	<0.0001



Anions by Ion Chromatography in Water [AN245] Tested: 8/7/2024

			WQA1A
			WATER
			1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Nitrate Nitrogen, NO3-N	mg/L	0.005	2.0



Nitrite in Water [AN277] Tested: 5/7/2024

			WQA1A
			WATER
			- 1/6/2024
PARAMETER	UOM	LOR	SE267737.002
Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.014
Total Oxidised Nitrogen, NOx-N	mg/L	0.005	2.0



TKN Kjeldahl Digestion by Discrete Analyser [AN292] Tested: 8/7/2024

			WQA1A
			WATER
PARAMETER	UOM	LOR	SE267737.002
Total Kjeldahl Nitrogen	mg/L	0.05	0.91
Total Nitrogen (calc)	mg/L	0.05	2.9



E. coli, Total and Faecal (Thermotolerant) coliforms in Water [AN735] Tested: 5/7/2024

			WQA1A
			WATER -
PARAMETER	UOM	LOR	1/6/2024 SE267737.002
Date & Time Processed*	No unit		2024-07-05 09:51
Date & Time Flocesseu	NO UIII	-	2024-07-03 09:31
E. coli	MPN/100mL	1	<1
Faecal Coliforms	MPN/100mL	1	<1



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.
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 AAS or ICP as per USEPA Method 200.8.
AN101	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+.
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
AN277	Nitrite ions, when reacted with a reagent containing sulphanilamide and N -(1-naphthyl)-ethylenediamine dihydrochloride produce a highly coloured azo dye that is measured photometrically at 540nm.
AN279/AN293(Sydney)	The sample is digested with Sulphuric acid, K2SO4 and CuSO4. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.
AN281	An unfiltered water or soil sample is first digested in a block digestor with sulfuric acid, K2SO4 and CuSO4. The ammonia produced following digestion is then measured colourimetrically using the Discrete Analyser. A portion of the digested sample is buffered to an alkaline pH, and interfering cations are complexed. The ammonia then reacts with salicylate and hypochlorite to give a blue colour whose absorbance is measured at 660nm and compared with calibration standards. This is proportional to the concentration of Total Kjeldahl Nitrogen in the original sample.
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, 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). 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). Total PAH calculated from individual analyte detections at or above the limit of reporting.



AN420	Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs. The sum is reported three ways, the first assuming all <lor <lor="" all="" are="" assuming="" lor.<="" results="" second="" td="" the="" zero,=""></lor>
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.
AN735	The Colilert matrix contains two nutrient indicators, ONPG (ortho-nitro-phenyl B-d- galactopyranoside) and MUG (4-methyl-umbelliferyl B-d-glucruonide). As coliforms grow, they use B-galactosidase to metabolise ONPG which causes yellow colouration of the matrix via the nitro-phenyl. E.coli possesses an additional enzyme, B-glucuronidase, which it uses to metabolise MUG and display florescence (caused by the 4 methyl-umbelliferyl). Incubation at 37°C.
AN735	Non target organisms are suppressed by a combination of high salts, detergents etc. present within the matrix. Faecal coliforms are thermotolerant, thus they can be enumerated by testing at 44.5°C.

FOOTNOTES -

*	NATA accreditation does not cover	-	Not analysed.	UOM	Unit of Measure.
	the performance of this service.	NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of
	time exceeded.	LNR	Sample listed, but not received.		Reporting.
***	Indicates that both * and ** apply.				

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: <u>www.sgs.com.au/en-gb/environment-health-and-safety</u>.

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STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAI	ILS
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Email	jacques@rawearthenvironmental.com.au	Email	au.environmental.sydney@sgs.com
Project	S00360 DSI Eileen O'Connor	SGS Reference	SE267737 R0
Order Number	S00360	Date Received	04 Jul 2024
Samples	3	Date Reported	11 Jul 2024

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:

Extraction Date	Anions by Ion Chromatography in Water	1 item
	E. coli, Total and Faecal (Thermotolerant) coliforms in Water	1 item
	Mercury (dissolved) in Water	1 item
	Nitrite in Water	1 item
	PAH (Polynuclear Aromatic Hydrocarbons) in Water	1 item
	pH in water	1 item
	TKN Kjeldahl Digestion by Discrete Analyser	1 item
	Total Phosphorus by Kjeldahl Digestion DA in Water	1 item
	TRH (Total Recoverable Hydrocarbons) in Water	1 item
	VOCs in Water	1 item
	Volatile Petroleum Hydrocarbons in Water	1 item
Analysis Date	Anions by Ion Chromatography in Water	1 item
	E. coli, Total and Faecal (Thermotolerant) coliforms in Water	1 item
	Mercury (dissolved) in Water	1 item

There are more than 15 quality objective exceedences. Please see report for details

O male and the section		The state of the second st	000	
Sample counts by matrix	2 Soil, 1 Water	Type of documentation received	COC	
Date documentation received	4/7/2024	Samples received in good order	Yes	
Samples received without headspace	Yes	Sample temperature upon receipt	11.5°C	
Sample container provider	Other Lab	Turnaround time requested	Standard	
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes	
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes	
Complete documentation received	Yes	. ,		

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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

Anions by Ion Chromatog Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	ME-(AU)-[ENV]AN Analysed
WQA1A	SE267737.002	LB317098	01 Jun 2024	04 Jul 2024	29 Jun 2024	08 Jul 2024†	29 Jun 2024	10 Jul 2024†
	CLEONONCOL	20011000	0100112021	010012021	20 0011 202 1	0000120211	20 000 2021	10 00120211
. coli, Total and Faecal ((Thermotolerant) coliforms i	n Water					Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316944	01 Jun 2024	04 Jul 2024	02 Jun 2024	05 Jul 2024†	08 Jul 2024	09 Jul 2024†
Aercury (dissolved) in Wa	ater						Method: ME-(AU)-[ENV	AN311(Perth)/AN
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316931	01 Jun 2024	04 Jul 2024	29 Jun 2024	05 Jul 2024†	29 Jun 2024	05 Jul 2024†
fercury in Soil							Method:	ME-(AU)-[ENV]AI
· ·	Comple No.		Compled	Dessived	Extraction Due	Eveneted		
Sample Name QA1A	Sample No. SE267737.001	QC Ref LB316969	Sampled 01 Jul 2024	Received 04 Jul 2024	Extraction Due 29 Jul 2024	Extracted 05 Jul 2024	Analysis Due 29 Jul 2024	Analysed 09 Jul 2024
QA2A	SE267737.001	LB316969	01 Jul 2024	04 Jul 2024 04 Jul 2024	30 Jul 2024	05 Jul 2024	30 Jul 2024	09 Jul 2024
loisture Content	32201131.003	20310303	02 301 2024	04 301 2024	30 301 2024	00 301 2024		ME-(AU)-[ENV]A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316967	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	10 Jul 2024	08 Jul 2024
QA2A	SE267737.003	LB316967	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	10 Jul 2024	08 Jul 2024
litrite in Water							Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316964	01 Jun 2024	04 Jul 2024	05 Jun 2024	05 Jul 2024†	05 Jun 2024	10 Jul 2024†
AH (Polynuclear Aroma	tic Hydrocarbons) in Soil						Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316963	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
QA2A	SE267737.003	LB316963	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
AH (Polynuclear Aroma	tic Hydrocarbons) in Water						Method:	ME-(AU)-[ENV]A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317036	01 Jun 2024	04 Jul 2024	08 Jun 2024	08 Jul 2024†	17 Aug 2024	10 Jul 2024
H in water							Method:	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB316868	01 Jun 2024	04 Jul 2024	02 Jun 2024	04 Jul 2024†	02 Jun 2024	04 Jul 2024†
KN Kjeldahl Digestion b	u Disercto Analyzor						Mothod	ME-(AU)-[ENV]AI
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317096	01 Jun 2024	04 Jul 2024	29 Jun 2024	08 Jul 2024†	29 Jun 2024	10 Jul 2024†
	dahl Digestion DA in Water		Somelad	Received	Extraction Due		d: ME-(AU)-[ENV]AN27	
Sample Name WQA1A	Sample No. SE267737.002	QC Ref LB317096	Sampled 01 Jun 2024	04 Jul 2024	Extraction Due 29 Jun 2024	Extracted 08 Jul 2024†	Analysis Due 29 Jun 2024	Analysed 10 Jul 2024†
WQA1A	SE267737.002	LB317096	01 Jun 2024	04 JUI 2024	29 Jun 2024	08 Jul 2024T	29 Jun 2024	10 Jul 2024T
otal Recoverable Eleme	onts in Soil/Waste Solids/Ma	terials by ICPOES					Method: ME-(AL)-[ENV]AN040/A
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
	SE267737.001	LB316968	01 Jul 2024	04 Jul 2024	28 Dec 2024	05 Jul 2024	28 Dec 2024	09 Jul 2024
	SE267737.003	LB316968	02 Jul 2024	04 Jul 2024	29 Dec 2024	05 Jul 2024	29 Dec 2024	09 Jul 2024
QA2A							Method:	ME-(AU)-[ENV]A
QA2A ' <mark>race Metals (Dissolved)</mark>								
QA1A QA2A Trace Metals (Dissolved) Sample Name WQA1A	in Water by ICPMS Sample No. SE267737.002	QC Ref LB317031	Sampled 01 Jun 2024	Received 04 Jul 2024	Extraction Due 28 Nov 2024	Extracted 08 Jul 2024	Analysis Due 28 Nov 2024	Analysed 08 Jul 2024

Sample Name	Sample No.	QC Ref



HOLDING TIME SUMMARY

Method: ME-(AU)-[ENV]AN433

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

TRH (Total Recoverable I	Method: I	ME-(AU)-[ENV]AN40						
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QA1A	SE267737.001	LB316963	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
QA2A	SE267737.003	LB316963	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	14 Aug 2024	08 Jul 2024
TRH (Total Recoverable I	Hydrocarbons) in Water						Method: I	ME-(AU)-[ENV]AN40
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
WQA1A	SE267737.002	LB317036	01 Jun 2024	04 Jul 2024	08 Jun 2024	08 Jul 2024†	17 Aug 2024	10 Jul 2024

VOC's in Soil Method: ME-(AU)-[ENV]A										
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed		
QA1A	SE267737.001	LB316966	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	15 Jul 2024	08 Jul 2024		
QA2A	SE267737.003	LB316966	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	16 Jul 2024	08 Jul 2024		
VOCs in Water	VOCs in Water Method: ME-(AU)-[ENV]AI									
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed		
WQA1A	SE267737.002	LB317116	01 Jun 2024	04 Jul 2024	15 Jun 2024	08 Jul 2024†	15 Jun 2024	09 Jul 2024†		

Volatile Petroleum Hydrocarbons in Soil

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed	
QA1A	SE267737.001	LB316966	01 Jul 2024	04 Jul 2024	15 Jul 2024	05 Jul 2024	15 Jul 2024	08 Jul 2024	
QA2A	SE267737.003	LB316966	02 Jul 2024	04 Jul 2024	16 Jul 2024	05 Jul 2024	16 Jul 2024	08 Jul 2024	
olatile Petroleum Hydrocarbons in Water Method: ME-(AU)-[ENV]AN43									
Volatile Petroleum Hydroc	arbons in Water						Method: I	ME-(AU)-[ENV]AN433	
Volatile Petroleum Hydrod Sample Name	arbons in Water Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Method: I Analysis Due	ME-(AU)-[ENV]AN433 Analysed	



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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	QA1A	SE267737.001	%	70 - 130%	96
	QA2A	SE267737.003	%	70 - 130%	101
d14-p-terphenyl (Surrogate)	QA1A	SE267737.001	%	70 - 130%	99
	QA2A	SE267737.003	%	70 - 130%	101
d5-nitrobenzene (Surrogate)	QA1A	SE267737.001	%	70 - 130%	96
	QA2A	SE267737.003	%	70 - 130%	103
AH (Polynuclear Aromatic Hydrocarbons) in Water				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery 9
2-fluorobiphenyl (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	60
d14-p-terphenyl (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	68
d5-nitrobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	61
OC's in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery 9
Bromofluorobenzene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	95
	QA2A	SE267737.003	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	QA1A	SE267737.001	%	60 - 130%	98
	QA2A	SE267737.003	%	60 - 130%	108
d8-toluene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	107
	QA2A	SE267737.003	%	60 - 130%	113
OCs in Water				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	93
d4-1,2-dichloroethane (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	101
d8-toluene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	81
olatile Petroleum Hydrocarbons in Soil				Method: M	E-(AU)-[ENV]AN
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	95
	QA2A	SE267737.003	%	60 - 130%	99
d4-1,2-dichloroethane (Surrogate)	QA1A	SE267737.001	%	60 - 130%	98
	QA2A	SE267737.003	%	60 - 130%	108
d8-toluene (Surrogate)	QA1A	SE267737.001	%	60 - 130%	107
	QA2A	SE267737.003	%	60 - 130%	113
olatile Petroleum Hydrocarbons in Water				Method: M	E-(AU)-[ENV]AI
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery ^o
Bromofluorobenzene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	93
d4-1,2-dichloroethane (Surrogate)	WQA1A	SE267737.002	%	60 - 130%	101
d8-toluene (Surrogate)	WQA1A	SE267737.002	%	40 - 130%	81



METHOD BLANKS

SE267737 R0

Method: ME-(AU)-[ENV]AN420

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.

)			
Anions by Ion Chromatography in Water Method: ME-(AU)-[ENV]AN245							
Sample Number	Parameter	Units	LOR	Result			
LB317098.001	Nitrate Nitrogen, NO3-N	mg/L	0.005	<0.005			

Mercury (dissolved) in Water

Mercury (dissolved) in Water		Method: ME-(AU)-[ENV]AN311(Perth)/AN312		
Sample Number	Parameter	Units	LOR	Result
LB316931.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Mercury in Soil			Method: ME-(AU)-[ENV]AN312		
Sample Number	Parameter	Units	LOR	Result	
LB316969.001	Mercury	mg/kg	0.05	<0.05	

Nitrite in Water

Nitrite in Water		Method: ME-(AU)-[ENV]AN277		
Sample Number	Parameter	Units	LOR	Result
LB316964.001	Nitrite Nitrogen, NO2 as N	mg/L	0.005	<0.005

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

	,			
Sample Number	Parameter	Units	LOR	Result
LB316963.001	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
Surrogates	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
	d5-nitrobenzene (Surrogate)	%	-	99
	2-fluorobiphenyl (Surrogate)	%	-	98
	d14-p-terphenyl (Surrogate)	%	-	103

PAH (Polynuclear Aromatic Hydrocarbons) in Water

PAH (Polynuclear Aromatic Hydrocarbons) in Water			Meth	Method: ME-(AU)-[ENV]AN420	
Sample Number	Parameter	Units	LOR	Result	
LB317036.001	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	



METHOD BLANKS

SE267737 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.

PAH (Polynuclear Aromatic Hydrocarbons) in Water (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB317036.001	Surrogates	d5-nitrobenzene (Surrogate)	%	-	72
		2-fluorobiphenyl (Surrogate)	%	-	76
		d14-p-terphenyl (Surrogate)	%	-	84
Total Phosphorus by	Kjeldahl Digestion DA in Water		Method:	ME-(AU)-[ENV]AN	279/AN293(Sydney only)
Sample Number		Parameter	Units	LOR	Result
LB317096.001				0.02	<0.02

Method: ME-(AU)-[ENV]AN040/AN320 Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Sample Number LOR Result Parameter LB316968.001 Arsenic, As mg/kg <1 1 Cadmium, Cd mg/kg 0.3 < 0.3 Chromium, Cr mg/kg 0.5 < 0.5 0.5 <0.5 Copper, Cu mg/kg Nickel, Ni mg/kg 0.5 < 0.5 Lead, Pb <1 mg/kg 1 Zinc, Zn 2 <2.0 mg/kg Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN318 Result Sample Number Units Parameter LOR LB317031.001 Arsenic µg/L 1 <1 Cadmium <0.1 0.1 µg/L Chromium µg/L 1 <1 Copper <1 µg/L 1 <1 Lead 1 µg/L Nickel µg/L 1 <1 Zinc 5 <5 µg/L TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403 Sample Number Units LOR Result Parameter LB316963.001 TRH C10-C14 mg/kg 20 <20 TRH C15-C28 45 <45 mg/kg <45 TRH C29-C36 45 mg/kg TRH C37-C40 mg/kg 100 <100 TRH C10-C36 Total 110 <110 mg/kg TRH (Total Recoverable Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN403 Sample Number Result Parameter Units LOR LB317036.001 TRH C10-C14 µg/L 50 <50 TRH C15-C28 200 <200 µg/L 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 Units LOR Result Parameter LB316966.001 Monocyclic Aromatic Benzene mg/kg 0.1 <0.1 Hvdrocarbons Toluene 0.1 <0.1 mg/kg Ethylbenzene <0.1 mg/kg 0.1 m/p-xylene mg/kg 0.2 < 0.2 0.1 <0.1 o-xylene mg/kg Polycyclic VOCs Naphthalene (VOC)* <0.1 mg/kg 0.1 Surrogates d4-1,2-dichloroethane (Surrogate) % 119 % 126 d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) % 107 Totals Total BTEX* mg/kg 0.6 <0.6

VOCs in Water Method: ME-(AU)-[ENV]AN433 Sample Number Result Parameter Units LB317116.001 Monocyclic Aromatic Benzene µg/L 0.5 < 0.5 Hydrocarbons Toluene µg/L 0.5 <0.5 Ethylbenzene 0.5 <0.5 µg/L m/p-xylene µg/L 1 <1



METHOD BLANKS

SE267737 R0

Method: ME-(AU)-[ENV]AN433

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)

VOCs in Water (contin	ued)			Meth	od: ME-(AU)-[ENV]AN43
Sample Number		Parameter	Units	LOR	Result
LB317116.001	Monocyclic Aromatic	o-xylene	μg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene (VOC)*	μg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	84
		Bromofluorobenzene (Surrogate)	%	-	91
Volatile Petroleum Hyd	drocarbons in Soil			Meth	od: ME-(AU)-[ENV]AN43
Sample Number		Parameter	Units	LOR	Result
LB316966.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1.2-dichloroethane (Surrogate)	%	-	119

Volatile Petroleum Hydrocarbons in Water

Sample Number		Parameter	Units	LOR	Result
LB317116.001		TRH C6-C9	μg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	84
		Bromofluorobenzene (Surrogate)	%	-	91



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Anions by Ion Chron	natography in Water				Meth	od: ME-(AU)-	ENVJAN245
Original	Duplicate	Parameter	Units LOR	Original	Duplicate	Criteria %	RPD %
SE267707.001	LB317098.014	Nitrate Nitrogen, NO3-N	mg/L 0.005	0.88	0.85	16	4

ercurv (dissolved) in Water

Mercury (dissolved)	in Water				Metho	d: ME-(AU)-[I	ENVJAN311(P	erth)/AN312
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267703.001	LB316931.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	140	0

Mercury in Soil

Mercury in Soil Method: ME-(AU)-[E						ENVJAN312		
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316969.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE267737.003	LB316969.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

								· · · · ·
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316967.011	% Moisture	%w/w	1	14.5	10.5	38	32
SE267737.003	LB316967.021	% Moisture	%w/w	1	14.7	15.3	37	4

Nitrite in Water

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267756.001	LB316964.014	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.17	0.17	18	1
SE267764.007	LB316964.024	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.019	0.018	42	4

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Method: ME-(AU)-IENVIAN002

Method: ME-(AU)-[ENV]AN277

Oniminant	Dunlisses		Deveryorkey	11-24-		Quiningl			DDD 0/
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316963.014		Naphthalene	mg/kg	0.1	0.1	0.1	113	32
			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	0.4	0.4	54	10
			Acenaphthene	mg/kg	0.1	0.3	0.2	71	43
			Fluorene	mg/kg	0.1	0.4	0.2	65	43
			Phenanthrene	mg/kg	0.1	4.9	4.0	32	19
			Anthracene	mg/kg	0.1	1.6	1.3	37	21
			Fluoranthene	mg/kg	0.1	11	11	31	0
			Pyrene	mg/kg	0.1	12	10	31	15
			Benzo(a)anthracene	mg/kg	0.1	4.7	4.0	32	15
			Chrysene	mg/kg	0.1	4.7	4.1	32	12
			Benzo(b&j)fluoranthene	mg/kg	0.1	6.5	5.7	32	14
			Benzo(k)fluoranthene	mg/kg	0.1	2.4	2.2	34	10
			Benzo(a)pyrene	mg/kg	0.1	5.8	5.1	32	13
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	4.2	3.7	33	13
			Dibenzo(ah)anthracene	mg/kg	0.1	0.7	0.6	46	12
			Benzo(ghi)perylene	mg/kg	0.1	4.7	4.1	32	15
			Carcinogenic PAHs, BaP TEQ <lor=0*< td=""><td>mg/kg</td><td>0.2</td><td>8.4</td><td>7.3</td><td>13</td><td>13</td></lor=0*<>	mg/kg	0.2	8.4	7.3	13	13
			Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>mg/kg</td><td>0.2</td><td>8.4</td><td>7.3</td><td>13</td><td>13</td></lor=lor>	mg/kg	0.2	8.4	7.3	13	13
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td>8.4</td><td>7.3</td><td>14</td><td>13</td></lor=lor*<>	mg/kg	0.3	8.4	7.3	14	13
			Total PAH (18)	mg/kg	0.8	64	57	30	12
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
		Ŭ	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	_	0.5	0.5	30	2
SE267737.003	LB316963.023		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
			i iuviciic	iiig/kg	0.1	-0.1	-0.1	200	0



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

PAH (Polynuclear	Aromatic Hydrocarbons) in Soil	continued)				Meth	od: ME-(AU)-	(ENVJAN42)
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267737.003	LB316963.023	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	<0.1	<0.1	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		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	200	0
		Carcinogenic PAHs, BaP TEQ <lor=0*< td=""><td>mg/kg</td><td>0.2</td><td><0.2</td><td><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 2*<="" td=""><td>mg/kg</td><td>0.2</td><td><0.2</td><td><0.2</td><td>175</td><td>0</td></lor=lor>	mg/kg	0.2	<0.2	<0.2	175	0
		Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>mg/kg</td><td>0.3</td><td><0.3</td><td><0.3</td><td>134</td><td>0</td></lor=lor*<>	mg/kg	0.3	<0.3	<0.3	134	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
	Surroga	es d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	4
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	3
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	5

PAH (Polynuclear Aromatic Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN420 Original Duplicate LOR Original Duplicate Criteria % RPD % Units Parameter SE267734.004 LB317036.028 Naphthalene 0.1 <0.1 <0.1 200 0 µg/L 200 2-methylnaphthalene µg/L 0.1 < 0.1 < 0.1 0 1-methylnaphthalene µg/L 0.1 < 0.1 < 0.1 200 0 Acenaphthylene 0.1 <0.1 <0.1 200 0 µg/L < 0.1 < 0.1 200 0 Acenaphthene µg/L 0.1 Fluorene µg/L 0.1 <0.1 <0.1 200 0 Phenanthrene 0.1 <0.1 <0.1 200 0 µg/L <0.1 200 Anthracene µg/L 0.1 < 0.1 0 Fluoranthene µg/L 0.1 <0.1 <0.1 200 0 Pyrene 0.1 <0.1 <0.1 200 0 µg/L Benzo(a)anthracene µg/L 0.1 < 0.1 < 0.1 200 0 Chrysene 0.1 <0.1 <0.1 200 0 µg/L Benzo(b&j)fluoranthene <0.1 <0.1 200 0 0.1 µg/L 200 Benzo(k)fluoranthene µg/L 0.1 < 0.1 < 0.1 0 0.1 <0.1 <0.1 200 0 Benzo(a)pyrene µg/L Indeno(1,2,3-cd)pyrene 0.1 <0.1 <0.1 200 0 µg/L < 0.1 < 0.1 200 0 Dibenzo(ah)anthracene µg/L 0.1 Benzo(ghi)perylene µg/L 0.1 <0.1 <0.1 200 0 Surrogates d5-nitrobenzene (Surrogate) 0.4 0.4 30 1 µg/L 2-fluorobiphenyl (Surrogate) 0.4 0.4 30 µg/L 4 d14-p-terphenyl (Surrogate) µg/L 0.4 0.4 30 1 pH in water Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267741.001	LB316868.008	pH**	pH Units	-	6.8	6.8	16	0

TKN Kieldahl Digestion by Discrete Analyser

The registration by Biologo Analyson												
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %				
SE267652.001	LB317096.028	Total Kjeldahl Nitrogen	mg/L	0.05	90	80	15	12				
SE267710.002	LB317096.014	Total Kjeldahl Nitrogen	mg/L	0.05	0.58	0.59	24	1				

Total Phosphorus by Kjeldahl Digestion DA in Water Method: ME-(AU)-[ENV]AN279/AN293(Sydn							Sydney only)	
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267652.001	LB317096.028	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	12	13	15	8
SE267710.002	LB317096.014	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	0.16	0.17	27	7

Method: ME_(ALI)_IENV/IAN292



Method: ME-(AU)-[ENV]AN318

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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Total Recoverable	Elements in Soil/Waste Solids	Materials by ICPOES				Method: ME-	-(AU)-[ENV]AI	1040/AN320
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316968.014	Arsenic, As	mg/kg	1	5	4	52	2
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	12	26	33	72 ②
		Copper, Cu	mg/kg	0.5	19	20	33	4
		Nickel, Ni	mg/kg	0.5	5.4	5.5	39	1
		Lead, Pb	mg/kg	1	23	12 26 33 19 20 33 5.4 5.5 39 23 21 35 38 44 35 <1	11	
		Zinc, Zn	mg/kg	2	38	44	35	15
SE267737.003	LB316968.024	Arsenic, As	mg/kg	1	<1	<1	200	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	0.6	0.6	111	2
		Copper, Cu	mg/kg	0.5	<0.5	<0.5	200	0
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	1	1	118	17
		Zinc, Zn	mg/kg	2	<2.0	<2.0	200	0

Trace Metals (Dissolved) in Water by ICPMS

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267686.001	LB317031.014	Arsenic	μg/L	1	<1	<1	200	0
		Cadmium	μg/L	0.1	<0.1	<0.1	170	0
		Chromium	μg/L	1	<1	<1	200	0
		Copper	μg/L	1	16	17	21	1
		Lead	μg/L	1	<1	<1	200	0
		Nickel	μg/L	1	25	25	19	1
		Zinc	μg/L	5	8	7	82	20
SE267737.002	LB317031.023	Arsenic	μg/L	1	<1	<1	200	0
		Cadmium	μg/L	0.1	<0.1	<0.1	200	0
		Chromium	μg/L	1	1	<1	124	5
		Copper	μg/L	1	3	3	49	3
		Lead	μg/L	1	<1	<1	200	0
		Nickel	μg/L	1	3	3	47	2
		Zinc	μg/L	5	64	64	23	1

TRH (Total Recoverable Hydrocarbons) in Soil

RH (Total Recov	erable Hydrocarbons) in Soil					Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267698.004	LB316963.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	440	180	45	82 ②
			TRH C29-C36	mg/kg	45	140	96	68	39
			TRH C37-C40	mg/kg	100	<100	<100	192	0
			TRH C10-C36 Total	mg/kg	110	580	280	56	70 ②
			TRH >C10-C40 Total (F bands)	mg/kg	210	650	250	77	90 @
		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	530	250	53	72 ②
			TRH >C34-C40 (F4)	mg/kg	120	130	<120	149	6
SE267737.003	LB316963.023		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
RH (Total Recov	erable Hydrocarbons) in Water					Meth	od: ME-(AU)-	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD 9
SE267734.004	LB317036.028		TRH C10-C14	µg/L	50	<50	<50	136	0
			TRH C15-C28	µg/L	200	210	210	124	3

TRH C29-C36

TRH C37-C40

TRH C10-C40

0

0

6

200

200

320

µg/L

µg/L

µg/L

<200

<200

<320

<200

<200

340

200

200

128



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Water (continued)

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267734.004	LB317036.028	TRH F Bands	TRH >C10-C16	µg/L	60	74	73	112	1
			TRH >C10-C16 - Naphthalene (F2)	μg/L	60	74	73	112	1
			TRH >C16-C34 (F3)	μg/L	500	<500	<500	200	0
			TRH >C34-C40 (F4)	μg/L	500	<500	<500	200	0
				P9/L	000				
OC's in Soil							Metho	d: ME-(AU)	-[ENV]AN
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD የ
SE267698.004	LB316966.014	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 (VOC)*	mg/kg	0.1	0.1	<0.1	143	6
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	7.9	50	14
			d8-toluene (Surrogate)	mg/kg	-	9.5	9.1	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.6	50	6
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE267737.003	LB316966.023	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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	10.3	50	5
			d8-toluene (Surrogate)	mg/kg	-	11.3	10.5	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.3	50	7
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
/OCs in Water							Metho	d: ME-(AU)	
	Dunlisste		Deveryorker	1114		Oni si se s			
Original	Duplicate	Manager	Parameter	Units	LOR	Original		Criteria %	
SE267650.001	LB317116.023	Monocyclic	Benzene	μg/L	0.5	0.0127156483		200	0
		Aromatic	Toluene	µg/L	0.5	0.0143019861		200	0
			Ethylbenzene	µg/L	0.5	0.0038307797		200	0
			m/p-xylene	µg/L	1		0.0363560520	200	0
			o-xylene	µg/L	0.5		0.0178497549	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.1157857607		200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.305203253		30	11
			d8-toluene (Surrogate)	µg/L	-		8.8254690836	30	5
			Bromofluorobenzene (Surrogate)	µg/L	-	9.1646668879		30	23
		Totals	Total BTEX	µg/L	3	0	0	200	0
SE267794.001	LB317116.024	Monocyclic	Benzene	μg/L	0.5	0.0131387877		200	0
		Aromatic	Toluene	µg/L	0.5	0.0119125457	0.0161932992	200	0
			Ethylbenzene	µg/L	0.5	0.0038030634	0.0097119470	200	0
			m/p-xylene	µg/L	1	0.0107407601	0.0201121277	200	0
			o-xylene	µg/L	0.5	0.0096225159	0.0106316375	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.1140624936	0	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1807299165	9.9313214441	30	2
			d8-toluene (Surrogate)	µg/L	-	8.2849951936	9.8150472586	30	17
			Bromofluorobenzene (Surrogate)	μg/L	-	9.4336274466	8.1464452711	30	15
		Totals	Total BTEX	μg/L	3	0	0	200	0
olatile Petroleum	Hydrocarbons in Soi	I					Metho	d: ME-(AU)	
			Parameter	Units	LOR	Original		Criteria %	
				mg/kg	25	<25	<25	200	RPD 1
Original	Duplicate					<25			
Original	LB316966.014		TRH C6-C10						
Original			TRH C6-C9	mg/kg	20	<20	<20	200	0
Original		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg	20	<20 9.1	<20 7.9	200 50	0 14
Original SE267698.004		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	mg/kg mg/kg mg/kg	20 - -	<20 9.1 9.5	<20 7.9 9.1	200 50 50	0 14 4
Original		Surrogates	TRH C6-C9 d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg	20	<20 9.1	<20 7.9	200 50	0 14

mg/kg

mg/kg

0.1

25

<0.1

<25

<0.1

<25

200

200

VPH F Bands

Benzene (F0)

TRH C6-C10 minus BTEX (F1)

0

0



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.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Soil (continued)

olatile Petroleum	Hydrocarbons in Soi	il (continued)					Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267737.003	LB316966.023		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	-	10.8	10.3	50	5
			d8-toluene (Surrogate)	mg/kg	-	11.3	10.5	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.9	9.3	50	7
		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
olatile Petroleum	TRH C6-C10 minus BTEX (F1) etroleum Hydrocarbons in Water Duplicate Parameter						Meth	od: ME-(AU)-	ENVJAN4
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE267650.001	LB317116.023		TRH C6-C10	µg/L	50	<50	<50	200	0
101000.001			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.3	10.1	30	11
			d8-toluene (Surrogate)	µg/L	-	8.4	8.8	30	5
			Bromofluorobenzene (Surrogate)	μg/L	-	9.2	7.3	30	23
		VPH F Bands	Benzene (F0)	μg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE267794.001	LB317116.024		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.2	9.9	30	2
			d8-toluene (Surrogate)	µg/L	-	8.3	9.8	30	17
			Bromofluorobenzene (Surrogate)	µg/L	-	9.4	8.1	30	15
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0



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.

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Anions by Ion Chromatograph	Ion Chromatography in Water Method: ME-(AU)-[ENV]AN2						U)-[ENV]AN245
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317098.002	Nitrate Nitrogen, NO3-N	mg/L	0.005	1.9	2	80 - 120	96

Mercury in Soil						N	lethod: ME-(A	U)-[ENV]AN312
Sample Number	Parameter		Units	LOR	Result	Expected	Criteria %	Recovery %
LB316969.002	Mercury		mg/kg	0.05	0.19	0.2	80 - 120	95

litrite in Water

Nitrite in Water					N	lethod: ME-(A	U)-[ENV]AN277
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316964.002	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.11	0.1	80 - 120	113

PAH (Polynuclear Aromatic Hydr	ocarbons) in Soil				N	lethod: ME-(A	J)-[ENV]AN420
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB316963.002	Naphthalene	mg/kg	0.1	4.7	4	60 - 140	118
	Acenaphthylene	mg/kg	0.1	4.9	4	60 - 140	122
	Acenaphthene	mg/kg	0.1	4.7	4	60 - 140	117
	Phenanthrene	mg/kg	0.1	4.9	4	60 - 140	122
	Anthracene	mg/kg	0.1	5.3	4	60 - 140	131
	Fluoranthene	mg/kg	0.1	4.6	4	60 - 140	115
	Pyrene	mg/kg	0.1	5.2	4	60 - 140	131
	Benzo(a)pyrene	mg/kg	0.1	5.6	4	60 - 140	139
Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	99
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	107
PAH (Polynuclear Aromatic Hydro	Polynuclear Aromatic Hydrocarbons) in Water				N	lethod: ME-(A	J)-[ENV]AN420
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317036.002	Naphthalene	µg/L	0.1	30	40	60 - 140	74
	Acenaphthylene	µg/L	0.1	33	40	60 - 140	82
	Acenaphthene	µg/L	0.1	31	40	60 - 140	77
	Phenanthrene	µg/L	0.1	30	40	60 - 140	75
	Anthracene	µg/L	0.1	30	40	60 - 140	74
	Fluoranthene			00	40		
	Fluoranthene	µg/L	0.1	29	40	60 - 140	73
	Pyrene	µg/L	0.1	29 26	40	60 - 140 60 - 140	73 66
Surrogates	Pyrene	µg/L	0.1	26	40	60 - 140	66
Surrogates	Pyrene Benzo(a)pyrene	μg/L μg/L	0.1 0.1	26 35	40 40	60 - 140 60 - 140	66 87
Surrogates	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate)	μg/L μg/L μg/L	0.1 0.1 -	26 35 0.3	40 40 0.5	60 - 140 60 - 140 40 - 130	66 87 56
Surrogates	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate)	μg/L μg/L μg/L μg/L	0.1 0.1 - -	26 35 0.3 0.4	40 40 0.5 0.5 0.5	60 - 140 60 - 140 40 - 130 40 - 130 40 - 130	66 87 56 80 64
	Pyrene Benzo(a)pyrene d5-nitrobenzene (Surrogate) 2-fluorobiphenyl (Surrogate)	μg/L μg/L μg/L μg/L	0.1 0.1 - -	26 35 0.3 0.4	40 40 0.5 0.5 0.5	60 - 140 60 - 140 40 - 130 40 - 130 40 - 130	66 87 56 80

Total Phosphorus by Kjeldahl Digestion DA in Water

Total Phosphorus by Kjeldahl Digestio	al Phosphorus by Kjeldahi Digestion DA in Water				: ME-(AU)-[EN	/]AN279/AN29	3(Sydney only)
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317096.002	Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	1.2	1	80 - 120	118

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Total Recoverable Elements	coverable Elements in Soli/Waste Solids/Materials by ICPOES				Method: ME-(AU)-[ENV]AN040/AN320			
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB316968.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	104	
	Cadmium, Cd	mg/kg	0.3	4.6	4.81	70 - 130	95	
	Chromium, Cr	mg/kg	0.5	41	38.31	80 - 120	107	
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	100	
	Nickel, Ni	mg/kg	0.5	180	187	80 - 120	99	
	Lead, Pb	mg/kg	1	89	89.9	80 - 120	99	



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.

Sample Number LB316968.002 Trace Metals (Dissolved) in Wat Sample Number LB317031.002	Parameter	Units	LOR	Result	Expected	Criteria %	Recoverv
Sample Number	Zinc, Zn	mg/kg	2	270	273	80 - 120	97
Sample Number	r by ICPMS					Method: ME-(Al	J)-[ENV]AN
	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
	Arsenic	µg/L	1	20	20	80 - 120	100
	Cadmium	μg/L	0.1	21	20	80 - 120	104
	Chromium	μg/L	1	22	20	80 - 120	109
	Copper	μg/L	1	22	20	80 - 120	109
	Lead	µg/L	1	20	20	80 - 120	102
	Nickel	µg/L	1	21	20	80 - 120	106
	Zinc	μg/L	5	23	20	80 - 120	115
RH (Total Recoverable Hydroc	urbons) in Soil					Vethod: ME-(Al	J)-[ENV]AN
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
B316963.002	TRH C10-C14	mg/kg	20	54	40	60 - 140	136
	TRH C15-C28	mg/kg	45	55	40	60 - 140	138
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	91
TRH F Ban		mg/kg	25	55	40	60 - 140	138
	TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	119
	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85
RH (Total Recoverable Hydroc	arbons) in Water					Nethod: ME-(Al	J)-[ENV]AN
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recoverv
.B317036.002	TRH C10-C14	µg/L	50	1200	1200	60 - 140	101
	TRH C15-C28	μg/L	200	1400	1200	60 - 140	121
	TRH C29-C36	µg/L	200	1500	1200	60 - 140	121
TRH F Band		μg/L	60	1400	1200	60 - 140	113
	TRH >C16-C34 (F3)	µg/L	500	1500	1200	60 - 140	122
	TRH >C34-C40 (F4)	μg/L	500	740	600	60 - 140	123
OC's in Soil						Method: ME-(Al	J)-[ENV]AN
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
_B316966.002 Monocyclic	Benzene	mg/kg	0.1	4.1	5	60 - 140	83
Aromatic	Toluene	mg/kg	0.1	5.9	5	60 - 140	118
	Ethylbenzene	mg/kg	0.1	4.9	5	60 - 140	97
	m/p-xylene	mg/kg	0.2	10	10	60 - 140	102
	o-xylene	mg/kg	0.1	5.1	5	60 - 140	102
Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.8	10	70 - 130	108
· ·	d8-toluene (Surrogate)	mg/kg	-	11.7	10	70 - 130	117
	Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	10	70 - 130	93
					1	Method: ME-(Al	J)-[ENV]AN
DCs in Water	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
	Benzene	µg/L	0.5	57	45.45	60 - 140	126
Sample Number	201120110				15.15	60 - 140	112
Sample Number	Toluene	µg/L	0.5	51	45.45	00 - 140	
Sample Number B317116.002 Monocyclic		μg/L μg/L	0.5	51 57	45.45	60 - 140	125
Sample Number B317116.002 Monocyclic	Toluene	μg/L					125 137
Sample Number B317116.002 Monocyclic	Toluene Ethylbenzene		0.5	57	45.45	60 - 140	
Sample Number B317116.002 Monocyclic	Toluene Ethylbenzene m/p-xylene	μg/L μg/L	0.5 1	57 120	45.45 90.9	60 - 140 60 - 140	137
Aromatic	Toluene Ethylbenzene m/p-xylene o-xylene	μg/L μg/L μg/L	0.5 1 0.5	57 120 63	45.45 90.9 45.45	60 - 140 60 - 140 60 - 140	137 138
Sample Number B317116.002 Monocyclic Aromatic	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate)	μg/L μg/L μg/L μg/L	0.5 1 0.5 -	57 120 63 8.5	45.45 90.9 45.45 10	60 - 140 60 - 140 60 - 140 60 - 140	137 138 85
Sample Number .B317116.002 Monocyclic Aromatic Surrogates	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L μg/L μg/L	0.5 1 0.5 -	57 120 63 8.5 8.2	45.45 90.9 45.45 10 10 10	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130	137 138 85 82 98
Sample Number .B317116.002 Monocyclic Aromatic Surrogates olatile Petroleum Hydrocarbon	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L μg/L μg/L	0.5 1 0.5 -	57 120 63 8.5 8.2	45.45 90.9 45.45 10 10 10	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130	137 138 85 82 98 J)-[ENV]AN
Sample Number .B317116.002 Monocyclic Aromatic Surrogates olatile Petroleum Hydrocarbon Sample Number	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soil	μg/L μg/L μg/L μg/L μg/L μg/L	0.5 1 0.5 - -	57 120 63 8.5 8.2 9.8	45.45 90.9 45.45 10 10 10	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Wethod: ME-(Al	137 138 85 82 98 J)-[ENV]AN
Sample Number B317116.002 Monocyclic Aromatic	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soil Parameter	μg/L μg/L μg/L μg/L μg/L μg/L Units	0.5 1 0.5 - - -	57 120 63 8.5 8.2 9.8 Result	45.45 90.9 45.45 10 10 10 Expected	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria %	137 138 85 82 98 J)-[ENV]AN Recovery
Bample Number B317116.002 Monocyclic Aromatic Surrogates Datile Petroleum Hydrocarbon Sample Number	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soil Parameter TRH C6-C10	μg/L μg/L μg/L μg/L μg/L μg/L Units mg/kg	0.5 1 0.5 - - LOR 25	57 120 63 8.5 8.2 9.8 Result 77	45.45 90.9 45.45 10 10 10 Expected 92.5	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140	137 138 85 82 98 J)-[ENV]AN Recovery 83
Sample Number B317116.002 Monocyclic Aromatic Surrogates Diatile Petroleum Hydrocarbon Sample Number B316966.002	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soil Parameter TRH C6-C10 TRH C6-C9	μg/L μg/L μg/L μg/L μg/L μg/L Units mg/kg mg/kg	0.5 1 0.5 - - - LOR 25 20	57 120 63 8.5 8.2 9.8 Result 77 67	45.45 90.9 45.45 10 10 10 Expected 92.5 80	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Wethod: ME-(Al Criteria % 60 - 140 60 - 140	137 138 85 82 98 J)-[ENV]A1 Recover 83 83
Sample Number B317116.002 Monocyclic Aromatic Surrogates Surrogates Sample Number B316966.002	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soll Parameter TRH C6-C10 TRH C6-C9 d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L μg/L μg/L μg/L μg/L Units mg/kg mg/kg mg/kg	0.5 1 0.5 - - - LOR 25 20 -	57 120 63 8.5 8.2 9.8 Result 77 67 10.8	45.45 90.9 45.45 10 10 10 Expected 92.5 80 10	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130	137 138 85 82 98 J)-[ENV]AN Recovery 83 83 108
Sample Number B317116.002 Monocyclic Aromatic Surrogates Surrogates B316966.002 Surrogates	Toluene Ethylbenzene m/p-xylene o-xylene d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) in Soil Parameter TRH C6-C10 TRH C6-C9 d4-1,2-dichloroethane (Surrogate) Bromofluorobenzene (Surrogate) s TRH C6-C10 minus BTEX (F1)	μg/L μg/L μg/L μg/L μg/L μg/L μg/L Units mg/kg mg/kg mg/kg mg/kg	0.5 1 - - - - - - - - 25 20 - -	57 120 63 8.5 8.2 9.8 Result 77 67 10.8 9.3	45.45 90.9 45.45 10 10 10 Expected 92.5 80 10 10 62.5	60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 Vethod: ME-(Al Criteria % 60 - 140 60 - 140 70 - 130 70 - 130	137 138 85 82 98 D)-[ENV]AN Recovery 83 83 108 93 74



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 H	platile Petroleum Hydrocarbons in Water (continued)						Nethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB317116.002		TRH C6-C10	μg/L	50	860	946.63	60 - 140	91
		TRH C6-C9	μg/L	40	730	818.71	60 - 140	89
	Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	8.5	10	60 - 140	85
		d8-toluene (Surrogate)	μg/L	-	8.2	10	70 - 130	82
		Bromofluorobenzene (Surrogate)	μg/L	-	9.8	10	70 - 130	98
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	μg/L	50	510	639.67	60 - 140	79



MATRIX SPIKES

SE267737 R0

Method: ME-(AU)-[ENV]AN420

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			Met	hod: ME-(AU)-[ENVJAN311	(Perth)/AN312
QC Sample Sample Number Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267425A.001 LB316931.004 Mercury	mg/L	0.0001	0.0023	<0.0001	0.008	118

Mercury in Soil

Mercury in Soil					Met	hod: ME-(AU	J)-[ENV]AN312	
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267760.001	LB316969.004	Mercury	mg/kg	0.05	0.26	0.11	0.2	79

Nitrite in Water				Met	nod: ME-(AL	J)-[ENV]AN277		
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE267709.001	LB316964.004	Nitrite Nitrogen, NO2 as N	mg/L	0.005	0.086	<0.005	0.1	87

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

C Sample						-			
	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
E267760.001	LB316963.004		Naphthalene	mg/kg	0.1	4.6	<0.1	4	115
			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	4.9	<0.1	4	121
			Acenaphthene	mg/kg	0.1	4.7	<0.1	4	117
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.9	<0.1	4	122
			Anthracene	mg/kg	0.1	5.2	<0.1	4	130
			Fluoranthene	mg/kg	0.1	4.6	<0.1	4	113
			Pyrene	mg/kg	0.1	5.0	<0.1	4	124
			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	5.5	<0.1	4	137
			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>5.5</td><td><0.2</td><td>-</td><td>-</td></lor=0*<>	TEQ (mg/kg)	0.2	5.5	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <lor=lor 2*<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>5.6</td><td><0.2</td><td>-</td><td>-</td></lor=lor>	TEQ (mg/kg)	0.2	5.6	<0.2	-	-
			Carcinogenic PAHs, BaP TEQ <lor=lor*< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>5.7</td><td><0.3</td><td>-</td><td>-</td></lor=lor*<>	TEQ (mg/kg)	0.3	5.7	<0.3	-	-
			Total PAH (18)	mg/kg	0.8	39	<0.8	-	-
	_	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	94
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	99
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	103
			tals by ICPOES				Method: ME		AN040/AN32
tal Recoverabl	e Elements in Soil/Wast	te Solids/Mater					moundar mil	-(10)-[[[111]]	A14040/A1402
		te Solids/Mate	•	Units	LOR	Result			
C Sample	e Elements in Soil/Wast Sample Number LB316968.004	te Solids/Mater	Parameter Arsenic, As		LOR 1		Original	Spike	
C Sample	Sample Number	te Solids/Mater	Parameter	mg/kg		Result 55 44	Original		Recovery?
C Sample	Sample Number	te Solids/Mater	Parameter Arsenic, As	mg/kg mg/kg	1	55	Original 11	Spike 50	Recovery 87 87
C Sample	Sample Number	te Solids/Mater	Parameter Arsenic, As Cadmium, Cd Chromium, Cr	mg/kg mg/kg mg/kg	1 0.3 0.5	55 44 71	Original 11 1.1 35	Spike 50 50 50	Recovery 87 87 73
C Sample	Sample Number	te Solids/Mate	Parameter Arsenic, As Cadmium, Cd	mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5 0.5	55 44	Original 11 1.1	Spike 50 50 50 50 50	Recovery 87 87
C Sample	Sample Number	te Solids/Mate	Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu	mg/kg mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5	55 44 71 100	Original 11 1.1 35 64	Spike 50 50 50	Recovery% 87 87 73 73
C Sample	Sample Number	te Solids/Mate	Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5 0.5 0.5 1	55 44 71 100 51 240	Original 11 1.1 35 64 6.9 230	Spike 50 50 50 50 50 50 50 50 50 50	Recovery% 87 87 73 73 89 5 @
C Sample 2267760.001	Sample Number		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni	mg/kg mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5 0.5 0.5	55 44 71 100 51	Original 11 1.1 35 64 6.9 230 180	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50	Recovery® 87 87 73 73 89 5 @ 57 @
C Sample E267760.001	Sample Number LB316968.004		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5 0.5 0.5 1	55 44 71 100 51 240	Original 11 1.1 35 64 6.9 230 180	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50	Recovery® 87 87 73 89 5 © 57 ©
C Sample 2267760.001 Ice Metals (Dis C Sample	Sample Number LB316968.004		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1 0.3 0.5 0.5 0.5 1 2	55 44 71 100 51 240 200	Original 11 1.1 35 64 6.9 230 180 Meth	Spike 50 50 50 50 50 50 50 50 0 0 0 0 0 0 0	Recovery® 87 87 73 89 5 © 57 ©
C Sample E267760.001 ace Metals (Dia C Sample	Sample Number LB316968.004 ssolved) in Water by ICF Sample Number		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L	1 0.3 0.5 0.5 0.5 1 2 LOR	55 44 71 100 51 240 200 Result	Original 11 1.1 35 64 6.9 230 180 Meth Original	Spike 50 50 50 50 50 50 50 50 50 00d: ME-(AU Spike	Recovery ⁶ 87 73 73 89 5 © 57 © 9)-[ENV]AN31 Recovery ⁶
C Sample 2267760.001 Ice Metals (Dis C Sample	Sample Number LB316968.004 ssolved) in Water by ICF Sample Number		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L	1 0.3 0.5 0.5 1 2 LOR 1	55 44 71 100 51 240 200 Result 22	Original 11 1.1 35 64 6.9 230 180 Meth Original <1	Spike 50 50 50 50 50 50 50 50 50 00d: ME-(AU Spike 20	Recovery 87 87 73 89 5 © 57 ©)-JENVJAN31 Recovery 108
C Sample E267760.001 Acce Metals (Dia C Sample	Sample Number LB316968.004 ssolved) in Water by ICF Sample Number		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic Cadmium Copper	тg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Units µg/L µg/L µg/L	1 0.3 0.5 0.5 1 2 LOR 1 0.1	55 44 71 100 51 240 200 Result 22 20 20	Original 11 1.1 35 64 6.9 230 180 Meth Original <1 <0.1	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50	Recovery? 87 73 73 89 5 5 57 0)-[ENV]AN311 Recovery? 108 101 98
C Sample E267760.001	Sample Number LB316968.004 ssolved) in Water by ICF Sample Number		Parameter Arsenic, As Cadmium, Cd Chromium, Cr Copper, Cu Nickel, Ni Lead, Pb Zinc, Zn Parameter Arsenic Cadmium	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L	1 0.3 0.5 0.5 1 2 LOR 1 0.1 1	55 44 71 100 51 240 200 Result 22 20	Original 11 1.1 35 64 6.9 230 180 Original <1	Spike 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50 50	Recovery% 87 73 73 89 5 5 57 0)-JENVJAN310 Recovery% 108 101



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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

RFI (TOTAL Reco	verable Hydrocarbon	s) in Soil					Me	thod: ME-(AU)-[ENVJAN4
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery
SE267760.001	LB316963.004		TRH C10-C14	mg/kg	20	51	<20	40	119
			TRH C15-C28	mg/kg	45	55	<45	40	117
			TRH C29-C36	mg/kg	45	<45	<45	40	75
			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	TRH >C10-C16	mg/kg	25	52	<25	40	121
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	52	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	93
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
OC's in Soil							Me	thod: ME-(AU)-IENVIAN4
	O a market blamaket an		Deveryorker	11-14-		D			
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recover
SE267760.001	LB316966.004	Monocyclic	Benzene	mg/kg	0.1	4.2	<0.1	5	84
		Aromatic	Toluene	mg/kg	0.1	6.3	<0.1	5	127
			Ethylbenzene	mg/kg	0.1	5.3	<0.1	5	106
			m/p-xylene	mg/kg	0.2	12	<0.2	10	119
			o-xylene	mg/kg	0.1	6.0	<0.1	5	119
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.3	10.7	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.1	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.9	10	81
		Totals	Total BTEX*	mg/kg	0.6	34	<0.6	-	-
			Total Xylenes*	mg/kg	0.3	18	<0.3	-	-
OCs in Water							Me	thod: ME-(AU)-[ENV]AN4
QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%	
SE267649.001	LB317116.022	Monocyclic			0.5	0.01262657330	45.45	108	0
5E207049.001	LB31/110.022	-	Benzene	μg/L	0.5	0.00995740420		108	_
		Aromatic		μg/L			45.45 45.45	107	_
			Ethylbenzene	μg/L	0.5	0.00442951060			-
			m/p-xylene	μg/L	1	0.01311410169	90.9	105	_
			o-xylene	μg/L	0.5	0.00523152792	45.45	103	_
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	0.12118071301	-	-	_
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	10.52461319074	-	92	_
			d8-toluene (Surrogate)	μg/L	-	8.20097877352	-	93	
			Bromofluorobenzene (Surrogate)	μg/L	-	9.24957541035	-	104	_
		Totals	Total BTEX	μg/L	3	0	-	-	
olatile Petroleu	m Hydrocarbons in S	oil					Ме	thod: ME-(AU)-[ENV]AN4
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recover
SE267760.001	LB316966.004		TRH C6-C10	mg/kg	25	120	<25	92.5	129
3E201100.001	EB310300.004		TRH C6-C9		20	120	<20	80	130
		Currentee		mg/kg	- 20				
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg		9.3	10.7	10	93
			d8-toluene (Surrogate)	mg/kg	-	9.7	10.1	10	97
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.1	8.9	-	81
		VPH F	Benzene (F0)	mg/kg	0.1	4.2	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	87	<25	62.5	138
olatile Petroleu	m Hydrocarbons in W	/ater					Me	thod: ME-(AU	I)-[ENV]AN4
QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%	6
SE267649.001	LB317116.022		TRH C6-C10	µg/L	50	0	946.63	84	
			TRH C6-C9	μg/L	40	0	818.71	87	1
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	- 40	10.52461319074	-	92	-
		Gungales	d8-toluene (Surrogate)			8.20097877352	-	92	-
				μg/L					-
			Bromofluorobenzene (Surrogate)	μg/L	-	9.24957541035	-	104	-
		VPH F	Benzene (F0) TRH C6-C10 minus BTEX (F1)	μg/L	0.5	0.01262657330	-	- 79	-



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

No matrix spike duplicates were required for this job.



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: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- 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.
- ④ 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.
- ⁽⁷⁾ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- [®] LOR was raised due to high conductivity of the sample (required dilution).
- t Refer to relevant report comments for further information.

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APPENDIX E: ENM ORDER 2014 & ENM EXEMPTION 2014



Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014

The excavated natural material order 2014

Introduction

This order, issued by the Environment Protection Authority (EPA) under clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation), imposes the requirements that must be met by suppliers of excavated natural material to which 'the excavated natural material exemption 2014' applies. The requirements in this order apply in relation to the supply of excavated natural material for application to land as engineering fill or for use in earthworks.

1. Waste to which this order applies

- 1.1. This order applies to excavated natural material. In this order, excavated natural material means naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:
 - a) been excavated from the ground, and
 - b) contains at least 98% (by weight) natural material, and
 - c) does not meet the definition of Virgin Excavated Natural Material in the Act.

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

2. Persons to whom this order applies

- 2.1. The requirements in this order apply, as relevant, to any person who supplies excavated natural material, that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of excavated natural material to a consumer for land application at a premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

3. Duration

3.1. This order commences on 24 November 2014 and is valid until revoked by the EPA by notice published in the Government Gazette.

4. Generator requirements

The EPA imposes the following requirements on any generator who supplies excavated natural material.

Sampling requirements

- 4.1. On or before supplying excavated natural material, the generator must:
 - 4.1.1. Prepare a written sampling plan which includes a description of sample preparation and storage procedures for the excavated natural material.
 - 4.1.2. Undertake sampling and testing of the excavated natural material as required under clauses 4.2, 4.3, and 4.4 below. The sampling must be carried out in accordance with the written sampling plan.
- 4.2. The generator must undertake sampling and analysis of the material for ASS and PASS, in accordance with the NSW Acid Sulfate Soil Manual, Acid Sulfate Soils Management Advisory Council, 1998 and the updated Laboratory Methods Guidelines version 2.1 June 2004 where:
 - 4.2.1. the pH measured in the material is below 5, and/or
 - 4.2.2. the review of the applicable Acid Sulfate Soil Risk Maps (published by the former Department of Land and Water Conservation and available at http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm) indicates the potential presence of ASS.
- 4.3. For stockpiled material, the generator must:
 - 4.3.1. undertake sampling in accordance with Australian Standard 1141.3.1 2012 Methods for sampling and testing aggregates Sampling Aggregates (or equivalent);
 - 4.3.2. undertake characterisation sampling by collecting the number of samples listed in Column 2 of Table 1 with respect to the quantity of the waste listed in Column 1 of Table 1 and testing each sample for the chemicals and other attributes listed in Column 1 of Table 4. For the purposes of characterisation sampling the generator must collect:
 - 4.3.2.1. composite samples for attributes 1 to 10 and 18 in Column 1 of Table 4.
 - 4.3.2.2. discrete samples for attributes 11 to 17 in Column 1 of Table 4.
 - 4.3.2.3. The generator must carry out sampling in a way that ensures that the samples taken are representative of the material from the entire stockpile. All parts of the stockpile must be equally accessible for sampling.
 - 4.3.2.4. for stockpiles greater than 4,000 tonnes the number of samples described in Table 1 must be repeated.
 - 4.3.3. store the excavated natural material appropriately until the characterisation test results are validated as compliant with the maximum average concentration or other value listed in Column 2 of Table 4 and the absolute maximum concentration or other value listed in Column 3 of Table 4.

Table 1

	Sampling of Stockpiled Material					
Column 1	Column 2	Column 3				
Quantity (tonnes)	Number of samples	Validation				
<500	3					
500 - 1,000	4					
1,000 - 2,000	5	Required				
2,000 - 3,000	7					
3,000 - 4,000	10]				

4.4. For in situ material, the generator must:

- 4.4.1. undertake sampling by collecting discrete samples. Compositing of samples is not permitted for in-situ materials.
- 4.4.2. undertake characterisation sampling for the range of chemicals and other attributes listed in Column 1 of Table 4 according to the requirements listed in Columns 1, 2 and 3 of Table 2. When the ground surface is not comprised of soil (e.g. concrete slab), samples must be taken at the depth at which the soil commences.
- 4.4.3. undertake sampling at depth according to Column 1 of Table 3.
- 4.4.4. collect additional soil samples (and analyse them for the range of chemicals and other attributes listed in Column 1 of Table 4), at any depth exhibiting discolouration, staining, odour or other indicators of contamination inconsistent with soil samples collected at the depth intervals indicated in Table 3.
- 4.4.5. segregate and exclude hotspots identified in accordance with Table 2, from material excavated for reuse.
- 4.4.6. subdivide sites larger than 50,000 m² into smaller areas and sample each area as per Table 2.
- 4.4.7. store the excavated natural material appropriately until the characterisation test results are validated as compliant with the maximum average concentration or other value listed in Column 2 of Table 4 and the absolute maximum concentration or other value listed in Column 3 of Table 4.

Table 2

	In S	<i>itu</i> Sampling at surfa	се	
Column 1	Column 2	Column 3	Column 4	Column 5
Size of <i>in situ</i> area (m ²)	Number of systematic sampling points recommended	Distance between two sampling points (m)	Diameter of the hot spot that can be detected with 95% confidence (m)	Validation
500	5	10.0	11.8	
1000	6	12.9	15.2	
2000	7	16.9	19.9	
3000	9	18.2	21.5	
4000	11	19.1	22.5	
5000	13	19.6	23.1	
6000	15	20.0	23.6	
7000	17	20.3	23.9	
8000	19	20.5	24.2	
9000	20	21.2	25.0	Required
10,000	21	21.8	25.7	
15,000	25	25.0	28.9	
20,000	30	25.8	30.5	
25,000	35	26.7	31.5	
30,000	40	27.5	32.4	
35,000	45	27.9	32.9	
40,000	50	28.3	33.4	
45,000	52	29.3	34.6	
50,000	55	30.2	35.6	

Table 2 has been taken from NSW EPA 1995, *Contaminated Sites Sampling Design Guidelines*, NSW Environment Protection Authority.

Table 3

In Situ Samp	oling at Depth
Column 1	Column 2
Sampling Requirements *	Validation
1 soil sample at 1.0 m bgl from each surface sampling point followed by 1 soil sample for every metre thereafter.	
From 1.0 m bgl, sample at the next metre interval until the proposed depth of excavation of the material is reached. If the proposed depth of excavation is between 0.5 to 0.9 m after the last metre interval, sample at the base of the proposed depth of excavation.	Required if the depth of excavation is equal to or greater than 1.0 m bgl

* Refer to Notes for examples

Chemical and other material requirements

- 4.5. The generator must not supply excavated natural material waste to any person if, in relation to any of the chemical and other attributes of the excavated natural material:
 - 4.5.1. The chemical concentration or other attribute of any sample collected and tested as part of the characterisation of the excavated natural material exceeds the absolute maximum concentration or other value listed in Column 3 of Table 4:
 - 4.5.2. The average concentration or other value of that attribute from the characterisation of the excavated natural material (based on the arithmetic mean) exceeds the maximum average concentration or other value listed in Column 2 of Table 4.
- 4.6. The absolute maximum concentration or other value of that attribute in any excavated natural material supplied under this order must not exceed the absolute maximum concentration or other value listed in Column 3 of Table 4.

Column 1	Column 2	Column 3
Chemicals and other attributes	Maximum average concentration for characterisation (mg/kg 'dry weight' unless otherwise specified)	Absolute maximum concentration (mg/kg 'dry weight' unless otherwise specified)
1. Mercury	0.5	1
2. Cadmium	0.5	1
3. Lead	50	100
4. Arsenic	20	40
5. Chromium (total)	75	150
6. Copper	100	200
7. Nickel	30	60
8. Zinc	150	300
9. Electrical Conductivity	1.5 dS/m	3 dS/m
10. pH *	5 to 9	4.5 to 10
11. Total Polycyclic Aromatic Hydrocarbons (PAHs)	20	40
12. Benzo(a)pyrene	0.5	1
13. Benzene	NA	0.5
14. Toluene	NA	65
15. Ethyl-benzene	NA	25
16. Xylene	NA	15
17. Total Petroleum Hydrocarbons C ₁₀ -C ₃₆	250	500
18. Rubber, plastic, bitumen, paper, cloth, paint and wood	0.05%	0.10%

Table 4

* The ranges given for pH are for the minimum and maximum acceptable pH values in the excavated natural material.

Test methods

- 4.7. The generator must ensure that any testing of samples required by this order is undertaken by analytical laboratories accredited by the National Association of Testing Authorities (NATA), or equivalent.
- 4.8. The generator must ensure that the chemicals and other attributes (listed in Column 1 of Table 4) in the excavated natural material it supplies are tested in accordance with the test methods specified below or other equivalent analytical methods. Where an equivalent analytical method is used the detection limit must be equal to or less than that nominated for the given method below.
 - 4.8.1. Test methods for measuring the mercury concentration.
 - 4.8.1.1. Analysis using USEPA SW-846 Method 7471B Mercury in solid or semisolid waste (manual cold vapour technique), or an equivalent analytical method with a detection limit < 20% of the stated absolute maximum concentration in Column 3 of Table 2 (i.e. < 0.20 mg/kg dry weight).</p>
 - 4.8.1.2. Report as mg/kg dry weight.
 - 4.8.2. Test methods for measuring chemicals 2 to 8.
 - 4.8.2.1. Sample preparation by digesting using USEPA SW-846 Method 3051A Microwave assisted acid digestion of sediments, sludges, soils, and oils (or an equivalent analytical method).
 - 4.8.2.2. Analysis using USEPA SW-846 Method 6010C Inductively coupled plasma atomic emission spectrometry, or an equivalent analytical method with a detection limit < 10% of the stated absolute maximum concentration in Column 3 of Table 2, (e.g. 10 mg/kg dry weight for lead).</p>
 - 4.8.2.3. Report as mg/kg dry weight.
 - 4.8.3. Test methods for measuring electrical conductivity and pH.
 - 4.8.3.1. Sample preparation by mixing 1 part excavated natural material with 5 parts distilled water.
 - 4.8.3.2. Analysis using Method 103 (pH) and 104 (Electrical Conductivity) in Schedule B (3): Guideline on Laboratory Analysis of Potentially Contaminated Soils, National Environment Protection (Assessment of Site Contamination) Measure 1999 (or an equivalent analytical method).
 - 4.8.3.3. Report electrical conductivity in deciSiemens per metre (dS/m).
 - 4.8.4. Test method for measuring Polynuclear Aromatic Hydrocarbons (PAHs) and benzo(a)pyrene.
 - 4.8.4.1. Analysis using USEPA SW-846 Method 8100 Polynuclear Aromatic Hydrocarbons (or an equivalent analytical method).
 - 4.8.4.2. Calculate the sum of all 16 PAHs for total PAHs.
 - 4.8.4.3. Report total PAHs as mg/kg dry weight.
 - 4.8.4.4. Report benzo(a)pyrene as mg/kg.

- 4.8.5. Test method for measuring benzene, toluene, ethylbenzene and xylenes (BTEX).
 - 4.8.5.1. Method 501 (Volatile Alkanes and Monocyclic Aromatic Hydrocarbons) in Schedule B (3): Guideline on Laboratory Analysis of Potentially Contaminated Soils, National Environment Protection (Assessment of Site Contamination) Measure 1999 (or an equivalent analytical method).
 - 4.8.5.2. Report BTEX as mg/kg.
- 4.8.6. Test method for measuring Total Petroleum Hydrocarbons (TPH).
 - 4.8.6.1. Method 506 (Petroleum Hydrocarbons) in Schedule B (3): Guideline on Laboratory Analysis of Potentially Contaminated Soils, National Environment Protection (Assessment of Site Contamination) Measure 1999 (or an equivalent analytical method).
 - 4.8.6.2. Report as mg/kg dry weight.
- 4.8.7. Test method for measuring rubber, plastic, bitumen, paper, cloth, paint and wood.
 - 4.8.7.1. NSW Roads & Traffic Authority Test Method T276 Foreign Materials Content of Recycled Crushed Concrete (or an equivalent method).
 - 4.8.7.2. Report as percent.

Notification

- 4.9. On or before each transaction, the generator must provide the following to each person to whom the generator supplies the excavated natural material:
 - a written statement of compliance certifying that all the requirements set out in this order have been met;
 - a copy of the excavated natural material exemption, or a link to the EPA website where the excavated natural material exemption can be found; and
 - a copy of the excavated natural material order, or a link to the EPA website where the excavated natural material order can be found.

Record keeping and reporting

- 4.10. The generator must keep a written record of the following for a period of six years:
 - the sampling plan required to be prepared under clause 4.1.1;
 - all characterisation sampling results in relation to the excavated natural material supplied;
 - the volume of detected hotspot material and the location;
 - the quantity of the excavated natural material supplied; and
 - the name and address of each person to whom the generator supplied the excavated natural material.
- 4.11. The generator must provide, on request, the characterisation and sampling results for that excavated natural material supplied to the consumer of the excavated natural material.

5. Definitions

In this order:

application or apply to land means applying to land by:

- spraying, spreading or depositing on the land; or
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

Bgl means below ground level, referring to soil at depth beneath the ground surface.

composite sample means a sample that combines five discrete sub-samples of equal size into a single sample for the purpose of analysis.

consumer means a person who applies, or intends to apply excavated natural material to land.

discrete sample means a sample collected and analysed individually that will not be composited.

generator means a person who generates excavated natural material for supply to a consumer.

hotspot means a cylindrical volume which extends through the soil profile from the ground surface to the proposed depth of excavation, where the level of any contaminant listed in Column 1 of Table 2 is greater than the absolute maximum concentration in Column 3 of Table 2.

in situ material means material that exists on or below the ground level. It does not include stockpiled material.

in situ sampling means sampling undertaken on in situ material.

N/A means not applicable.

stockpiled material means material that has been excavated from the ground and temporarily stored on the ground prior to use.

systematic sampling means sampling at points that are selected at even intervals and are statistically unbiased.

transaction means:

- in the case of a one-off supply, the supply of a batch, truckload or stockpile of excavated natural material that is not repeated.
- in the case where the supplier has an arrangement with the recipient for more than one supply of excavated natural material, the first supply of excavated natural material as required under the arrangement.

Manager Waste Strategy and Innovation Environment Protection Authority (by delegation)

Notes

The EPA may amend or revoke this order at any time. It is the responsibility of each of the generator and processor to ensure it complies with all relevant requirements of the most current order. The current version of this order will be available on 'www.epa.nsw.gov.au

In gazetting or otherwise issuing this order, the EPA is not in any way endorsing the supply or use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this order are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this order nor the accompanying exemption guarantee that the environment, human health or agriculture will not be harmed.

Any person or entity which supplies excavated natural material should assess whether the material is fit for the purpose the material is proposed to be used for, and whether this use may cause harm. The supplier may need to seek expert engineering or technical advice.

Regardless of any exemption or order provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The supply of excavated natural material remains subject to other relevant environmental regulations in the POEO Act and Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of this order, is guilty of an offence and subject to prosecution.

This order does not alter the requirements of any other relevant legislation that must be met in supplying this material, including for example, the need to prepare a Safety Data Sheet. Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.

Examples

In situ sampling at depth

Example 1.

If the proposed depth of ENM excavation is between 1 m bgl and 1.4 m bgl, then:

- 1 sample on surface (as per the requirements of Table 2).
- 1 sample at 1 m bgl.
- No further depth sampling after 1 m bgl, unless required under section 4.4.4.

Example 2.

If the proposed depth of ENM excavation is at 1.75 m bgl, then:

- 1 sample on surface (as per the requirements of Table 2).
- 1 sample at 1 m bgl.
- 1 sample at 1.75 m bgl.
- No further depth sampling after 1.75 m bgl, unless required under section 4.4.4.

Example 3.

If the proposed depth of ENM excavation is at 2.25 m bgl, then:

- 1 sample on surface (as per the requirements of Table 2).
- 1 sample at 1 m bgl.
- 1 sample at 2 m bgl.
- No further depth sampling after 2 m bgl, unless required under section 4.4.4.



Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014

The excavated natural material exemption 2014

Introduction

This exemption:

- is issued by the Environment Protection Authority (EPA) under clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation); and
- exempts a consumer of excavated natural material from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the Waste Regulation in relation to the application of that waste to land, provided the consumer complies with the conditions of this exemption.

This exemption should be read in conjunction with 'the excavated natural material order 2014'.

1. Waste to which this exemption applies

- 1.1. This exemption applies to excavated natural material that is, or is intended to be, applied to land as engineering fill or for use in earthworks.
- 1.2. Excavated natural material is naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:
 - a) been excavated from the ground, and
 - b) contains at least 98% (by weight) natural material, and
 - c) does not meet the definition of Virgin Excavated Natural Material in the Act.

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

2. Persons to whom this exemption applies

2.1. This exemption applies to any person who applies or intends to apply excavated natural material to land as set out in 1.1.

3. Duration

3.1. This exemption commences on 24 November 2014 and is valid until revoked by the EPA by notice published in the Government Gazette.

4. Premises to which this exemption applies

4.1. This exemption applies to the premises at which the consumer's actual or intended application of excavated natural material is carried out.

5. Revocation

5.1. 'The excavated natural material exemption 2012' which commenced 19 October 2012 is revoked from 24 November 2014.

6. Exemption

- 6.1. Subject to the conditions of this exemption, the EPA exempts each consumer from the following provisions of the POEO Act and the Waste Regulation in relation to the consumer's actual or intended application of excavated natural material to land as engineering fill or for use in earthworks at the premises:
 - section 48 of the POEO Act in respect of the scheduled activities described in clauses 39 of Schedule 1 of the POEO Act;
 - Part 4 of the Waste Regulation;
 - section 88 of the POEO Act; and
 - clause 109 and 110 of the Waste Regulation.
- 6.2. The exemption does not apply in circumstances where excavated natural material is received at the premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land) or clause 40 'waste disposal' (thermal treatment) of Schedule 1 of the POEO Act.

7. Conditions of exemption

The exemption is subject to the following conditions:

- 7.1. At the time the excavated natural material is received at the premises, the material must meet all chemical and other material requirements for excavated natural material which are required on or before the supply of excavated natural material under 'the excavated natural material order 2014'.
- 7.2. The excavated natural material can only be applied to land as engineering fill or for use in earthworks.
- 7.3. The consumer must keep a written record of the following for a period of six years:
 - the quantity of any excavated natural material received; and
 - the name and address of the supplier of the excavated natural material received.
- 7.4. The consumer must make any records required to be kept under this exemption available to authorised officers of the EPA on request.
- 7.5. The consumer must ensure that any application of excavated natural material to land must occur within a reasonable period of time after its receipt.

8. Definitions

In this exemption:

application or apply to land means applying to land by:

- spraying, spreading or depositing on the land; or
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

consumer means a person who applies, or intends to apply excavated natural material to land.

Manager Waste Strategy and Innovation Environment Protection Authority (by delegation)

Notes

The EPA may amend or revoke this exemption at any time. It is the responsibility of the consumer to ensure they comply with all relevant requirements of the most current exemption. The current version of this exemption will be available on www.epa.nsw.gov.au

In gazetting or otherwise issuing this exemption, the EPA is not in any way endorsing the use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this exemption are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this exemption nor the accompanying order guarantee that the environment, human health or agriculture will not be harmed.

The consumer should assess whether or not the excavated natural material is fit for the purpose the material is proposed to be used for, and whether this use will cause harm. The consumer may need to seek expert engineering or technical advice.

Regardless of any exemption provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The receipt of excavated natural material remains subject to other relevant environmental regulations in the POEO Act and the Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of having an exemption, is guilty of an offence and subject to prosecution.

This exemption does not alter the requirements of any other relevant legislation that must be met in utilising this material, including for example, the need to prepare a Safety Data Sheet (SDS).

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.



Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014

The reclaimed asphalt pavement order 2014

Introduction

This order, issued by the Environment Protection Authority (EPA) under clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation), imposes the requirements that must be met by suppliers of reclaimed asphalt pavement to which 'the reclaimed asphalt pavement exemption 2014' applies. The requirements in this order apply in relation to the supply of reclaimed asphalt pavement for application to land for road maintenance activities, being use as a road base and sub base, applied as a surface layer on road shoulders and unsealed roads, and use as an engineering fill. The requirements in this order also apply to the supply of reclaimed asphalt pavement for use as an alternative raw material in the manufacture of asphalt.

1. Waste to which this order applies

1.1. This order applies to reclaimed asphalt pavement. In this order, reclaimed asphalt pavement means an asphalt matrix which was previously used as an engineering material and which must not contain a detectable quantity of coal tar or asbestos.

2. Persons to whom this order applies

- 2.1. The requirements in this order apply, as relevant, to any person who supplies reclaimed asphalt pavement that has been generated, processed or recovered by the person.
- 2.2. This order does not apply to the supply of reclaimed asphalt pavement to a consumer for land application or in connection with a process involving thermal treatment at a premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

3. Duration

3.1. This order commences on 24 November 2014 and is valid until revoked by the EPA by notice published in the Government Gazette.

4. **Processor requirements**

The EPA imposes the following requirements on any processor who supplies reclaimed asphalt pavement.

General requirements

- 4.1. The processor must implement procedures to minimise the potential to receive or process reclaimed asphalt pavement containing asbestos. These procedures must be formally documented and the records of compliance must be kept for a period of six years.
- 4.2. The processor must implement procedures to minimise the potential to receive or process reclaimed asphalt pavement in which the asphalt matrix contains detectable quantities of coal tar. These procedures must be formally documented and the records of compliance must be kept for a period of six years.

Notification

- 4.3. On or before each transaction, the processor must provide the following to each person to whom the processor supplies the reclaimed asphalt pavement:
 - a written statement of compliance certifying that all the requirements set out in this order have been met;
 - a copy of the reclaimed asphalt pavement exemption, or a link to the EPA website where the reclaimed asphalt pavement exemption can be found; and
 - a copy of the reclaimed asphalt pavement order, or a link to the EPA website where the reclaimed asphalt pavement order can be found.

Record keeping and reporting

- 4.4. The processor must keep a written record of the following for a period of six years:
 - the quantity of any reclaimed asphalt pavement supplied; and
 - the name and address of each person to whom the processor supplied the reclaimed asphalt pavement, or the registration details of the vehicle used to transport the reclaimed asphalt pavement.

5. Definitions

In this order:

application or apply to land means applying to land by:

- spraying, spreading or depositing on the land; or
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

asphalt matrix means the solid material typically comprising of sand, aggregates and similar materials bound together with bituminous and/or other similar binders.

coal tar means the by-product of the thermal processing of coal and means material that has or reasonably is suspected to have present volatile organic contaminants, such as phenols, as well as other toxic materials such as polycyclic aromatic hydrocarbons (PAHs).

consumer means:

- a person who applies, or intends to apply, reclaimed asphalt pavement to land; and
- a person who uses, or intends to use, reclaimed asphalt pavement in connection with a process involving thermal treatment.

detectable quantity of coal tar means the coal tar deemed to be present in an asphalt matrix when it gives a positive red colour result when tested using RTA Test Method T542.

processor means a person who processes, mixes, blends, or otherwise incorporates reclaimed asphalt pavement into a material in its final form for supply to a consumer.

transaction means:

- in the case of a one-off supply, the supply of a batch, truckload or stockpile of reclaimed asphalt pavement waste that is not repeated.
- in the case where the supplier has an arrangement with the recipient for more than one supply of reclaimed asphalt pavement waste the first supply of reclaimed asphalt pavement waste as required under the arrangement.

Manager Waste Strategy and Innovation Environment Protection Authority (by delegation)

Notes

The EPA may amend or revoke this order at any time. It is the responsibility of each of the generator and processor to ensure it complies with all relevant requirements of the most current order. The current version of this order will be available on www.epa.nsw.gov.au

In gazetting or otherwise issuing this order, the EPA is not in any way endorsing the supply or use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this order are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this order nor the accompanying exemption guarantee that the environment, human health or agriculture will not be harmed.

Any person or entity which supplies reclaimed asphalt pavement should assess whether the material is fit for the purpose the material is proposed to be used for, and whether this use may cause harm. The supplier may need to seek expert engineering or technical advice.

Regardless of any exemption or order provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site(s).

The supply of reclaimed asphalt pavement remains subject to other relevant environmental regulations in the POEO Act and Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of this order, is guilty of an offence and subject to prosecution.

This order does not alter the requirements of any other relevant legislation that must be met in supplying this material, including for example, the need to prepare a Safety Data Sheet.

Failure to comply with the conditions of this order constitutes an offence under clause 93 of the Waste Regulation.



Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014

The reclaimed asphalt pavement exemption 2014

Introduction

This exemption:

- is issued by the Environment Protection Authority (EPA) under clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation); and
- exempts a consumer of reclaimed asphalt pavement from certain requirements under the *Protection of the Environment Operations Act 1997* (POEO Act) and the Waste Regulation in relation to the application of that waste to land or in connection with a process of thermal treatment, provided the consumer complies with the conditions of this exemption.

This exemption should be read in conjunction with 'the reclaimed asphalt pavement order 2014'.

1. Waste to which this exemption applies

- 1.1. This exemption applies to reclaimed asphalt pavement that is, or is intended to be:
 - 1.1.1. applied to land for road related activities including road construction or road maintenance activities being:
 - (a) use as a road base and sub base,
 - (b) applied as a surface layer on road shoulders and unsealed roads, and
 - (c) use as an engineering fill material.
 - 1.1.2. used as an alternative input into thermal processes for non-energy recovery purposes in the manufacture of asphalt.
- 1.2. Reclaimed asphalt pavement means an asphalt matrix which was previously used as an engineering material and which must not contain a detectable quantity of coal tar or asbestos.

2. Persons to whom this exemption applies

2.1. This exemption applies to any person who applies, or intends to apply, reclaimed asphalt pavement to land and any person who uses, or intends to

use, reclaimed asphalt pavement in connection with a process of thermal treatment as set out in 1.1.

3. Duration

3.1. This exemption commences on 24November 2014 and is valid until revoked by the EPA by notice published in the Government Gazette.

4. Premises to which this exemption applies

4.1. This exemption applies to the premises at which the consumer's actual or intended application of reclaimed asphalt pavement is carried out.

5. Revocation

5.1. 'The reclaimed asphalt pavement exemption 2012' which commenced on 16 January 2012 is revoked from 24 November 2014.

6. Exemption

- 6.1. Subject to the conditions of this exemption, the EPA exempts each consumer from the following provisions of the POEO Act and the Waste Regulation in relation to the consumer's actual or intended application of reclaimed asphalt pavement to land or use in connection with a process of thermal treatment at the premises:
 - section 48 of the POEO Act in respect of the scheduled activities described in clauses 39, 40 and 42 of Schedule 1 of the POEO Act;
 - Part 4 of the Waste Regulation;
 - section 88 of the POEO Act; and
 - clause 109 and 110 of the Waste Regulation.
- 6.2. The exemption does not apply in circumstances where reclaimed asphalt pavement is received at the premises for which the consumer holds a licence under the POEO Act that authorises the carrying out of the scheduled activities on the premises under clause 39 'waste disposal (application to land)' or clause 40 'waste disposal (thermal treatment)' of Schedule 1 of the POEO Act.

7. Conditions of exemption

The exemption is subject to the following conditions:

- 7.1. The reclaimed asphalt pavement can only be:
 - 7.1.1. applied to land for road related activities including road construction or road maintenance activities being:
 - (a) use as a road base and sub base,
 - (b) applied as a surface layer on road shoulders and unsealed roads, and
 - (c) use as an engineering fill material
 - 7.1.2. used as an alternative input into thermal processes for non-energy recovery purposes in the manufacture of asphalt.

7.2. The consumer must ensure that any application of reclaimed asphalt pavement to land or any use of reclaimed asphalt pavement in connection with a process of thermal treatment must occur within a reasonable period of time after its receipt.

8. Definitions

In this exemption:

application or apply to land means applying to land by:

- spraying, spreading or depositing on the land; or
- ploughing, injecting or mixing into the land; or
- filling, raising, reclaiming or contouring the land.

asphalt matrix means the solid material typically comprising of sand, aggregates and similar materials bound together with bituminous and/or other similar binders.

coal tar means the by-product of the thermal processing of coal and means material that has or reasonably is suspected to have present volatile organic contaminants, such as phenols, as well as other toxic materials such as polycyclic aromatic hydrocarbons (PAHs).

consumer means:

- a person who applies, or intends to apply, reclaimed asphalt pavement to land; and
- a person who uses, or intends to use, reclaimed asphalt pavement in connection with a process involving thermal treatment.

detectable quantity of coal tar means the coal tar deemed to be present in an asphalt matrix when it gives a positive red colour result when tested using RTA Test Method T542.

Manager Waste Strategy and Innovation Environment Protection Authority (by delegation)

Notes

The EPA may amend or revoke this exemption at any time. It is the responsibility of the consumer to ensure they comply with all relevant requirements of the most current exemption. The current version of this exemption will be available on www.epa.nsw.gov.au

In gazetting this exemption, the EPA is not in any way endorsing the use of this substance or guaranteeing that the substance will confer benefit.

The conditions set out in this exemption are designed to minimise the risk of potential harm to the environment, human health or agriculture, although neither this exemption nor the accompanying order guarantee that the environment, human health or agriculture will not be harmed.

The consumer should assess whether or not the reclaimed asphalt pavement is fit for the purpose the material is proposed to be used for, and whether this use will cause harm. The consumer may need to seek expert engineering or technical advice.

Regardless of any exemption provided by the EPA, the person who causes or permits the application of the substance to land must ensure that the action is lawful and consistent with any other legislative requirements including, if applicable, any development consent(s) for managing operations on the site.

The receipt of reclaimed asphalt pavement remains subject to other relevant environmental regulations in the POEO Act and Waste Regulation. For example, a person who pollutes land (s. 142A) or water (s. 120), or causes air pollution through the emission of odours (s. 126), or does not meet the special requirements for asbestos waste (Part 7 of the Waste Regulation), regardless of having an exemption, is guilty of an offence and subject to prosecution.

This exemption does not alter the requirements of any other relevant legislation that must be met in utilising this material, including for example, the need to prepare a Safety Data Sheet (SDS).

Failure to comply with the conditions of this exemption constitutes an offence under clause 91 of the Waste Regulation.