## Soils

#### 6-8 Woodburn Street, Redfern, NSW 2016

### **Atlas of Australian Soils**

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Tb35	Sodosol	Dissected plateau remnantsflat to undulating ridge tops with moderate to steep side slopes: chief soils are hard acidic yellow and yellow mottled soils (Dy3.41), (Dy2.21), and (Dy2.41) and hard acidic red soils (Dr2.21); many shallow profiles occur and profile thickness varies considerably over short distances. Associated are: (Gn3.54), (Gn3.14), and possibly other (Gn3) soils; (Db1.2) soils on some ridges; (Dy5.81) soils in areas transitional to unit Mb2; soils common to unit Mb2; and eroded lateritic remnants. Small areas of other soils are likely. Flat ferruginous shale or sandstone fragments are common on and/or in and/or below the soils of this unit.	Om	On-site
Cb27	Podosol	Coastal sand plains and dunes, lagoons, and swampy areas: chief soils are leached sands (Uc2.3 and Uc2.2). Associated are dunes of siliceous sands (Uc1.2) and/or calcareous sands (Uc1.1) fringing the coastline; and swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Unit Cb27 has similarities with units Cb28 and Ca6.	0m	On-site
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low- lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	260m	West

Atlas of Australian Soils Data Source: CSIRO

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## Soil Landscapes of Central and Eastern NSW



## Soils

#### 6-8 Woodburn Street, Redfern, NSW 2016

## Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

Soil Code	Name	Distance	Direction
<u>9130bt</u>	Blacktown	0m	On-site
<u>9130xx</u>	Disturbed Terrain	38m	North West
<u>9130tg</u>	Tuggerah	192m	South East
<u>9130gy</u>	Gymea	315m	North
<u>9130lh</u>	Lucas Heights	864m	North East
<u>9130dc</u>	Deep Creek	914m	North East

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment

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### **Acid Sulfate Soils**



# **Acid Sulfate Soils**

6-8 Woodburn Street, Redfern, NSW 2016

### **Environmental Planning Instrument - Acid Sulfate Soils**

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

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### **Atlas of Australian Acid Sulfate Soils**



# **Acid Sulfate Soils**

6-8 Woodburn Street, Redfern, NSW 2016

## **Atlas of Australian Acid Sulfate Soils**

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
В	Low Probability of occurrence. 6-70% chance of occurrence.	0m	On-site
С	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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# **Dryland Salinity**

6-8 Woodburn Street, Redfern, NSW 2016

## **Dryland Salinity - National Assessment**

Is there Dryland Salinity - National Assessment data onsite?

#### No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

#### No

#### What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

## Mining

6-8 Woodburn Street, Redfern, NSW 2016

## **Mining Subsidence Districts**

#### Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

## **Mining & Exploration Titles**

	PEL0198 PEL	0210	
	PELS PEL463	EL0279	8
	PSPAUTH17 PEL0013		000m
	EL0083 PEL0463		
	PEL0102	0250	
Legend			
Legena Site Boundary Duffer 400m	ploration Titles		
Buffer 1000m Current Mining & Exp Property Boundary Historical Mining & E	ploration Titles		
Scale: 0 100 200 Meters 0 100 200 Meters	Data Sources: Property Boundaries & Topographic Data © Department Finance, Services & Innovation 2021	a: Coordinate System: GDA 1994 MGA Zone 56	Date: 22 September 2021

## Mining

6-8 Woodburn Street, Redfern, NSW 2016

### **Current Mining & Exploration Titles**

#### Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

## **Current Mining & Exploration Title Applications**

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

# Mining

6-8 Woodburn Street, Redfern, NSW 2016

## **Historical Mining & Exploration Titles**

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL0083	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	9/09/1981	8/03/1993	PETROLEUM	Petroleum	Om	On-site
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	17/04/1990	11/11/1993	PETROLEUM	Petroleum	0m	On-site
PEL463	DART ENERGY (APOLLO) PTY LTD			MINERALS		0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED			MINERALS		0m	On-site
PEL0198	JOHN STREVENS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0463	DART ENERGY (APOLLO) PTY LTD	22/10/2008	6/03/2015	PETROLEUM	Petroleum	0m	On-site
PEL0013	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	8/03/2007	7/03/2008	PETROLEUM	Petroleum	0m	On-site

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

# **SEPP State Significant Precincts**



# **State Environmental Planning Policy**

6-8 Woodburn Street, Redfern, NSW 2016

## **State Significant Precincts**

What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
259	Redfern-Waterloo Authority Sites	State Environmental Planning Policy (State Significant Precincts) 2005	16/03/2012	16/03/2012	16/03/2012	State Environmental Planning Policy (Major Development) Amendment (Redfern? Waterloo Authority Sites) 2012	0m	On-site
281	Darling Harbour	State Environmental Planning Policy (State Significant Precincts) 2005	28/09/2011	01/10/2011	01/10/2011	State Environmental Planning Policy (State and Regional Development) 2011	892m	North

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

### **EPI Planning Zones**



# **Environmental Planning Instrument**

6-8 Woodburn Street, Redfern, NSW 2016

# Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	0m	On-site
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	9m	West
G	Special Purposes Zone - Infrastructure		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	10m	South
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		24m	East
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	47m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		49m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		69m	North West
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		75m	North East
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	80m	South West
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		81m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	90m	South West
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		90m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		110m	East
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	112m	South West
SP2	Infrastructure	Railways	Sydney Local Environmental Plan 2012	14/08/2020	14/08/2020	14/08/2020	State Environmental Planning Policy Amendment (Western Gateway Sub- precinct) 2020	115m	North East
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		129m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		129m	East
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		132m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		141m	West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		141m	North
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		147m	North East
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		152m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		171m	South West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		199m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		201m	East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		216m	East
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	218m	South West
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		218m	South East
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	241m	South West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		243m	South West
B2	Local Centre		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		249m	South East
E	Business Zone - Commercial Core		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	263m	South
G	Special Purposes Zone - Infrastructure		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	264m	South West
E	Business Zone - Commercial Core		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	274m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		293m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		309m	South West
E	Business Zone - Commercial Core		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	310m	South
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		328m	South
B1	Neighbourhood Centre		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		351m	South West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		351m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		354m	North West
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		373m	North West
Η	Recreation Zone - Public Recreation		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	392m	South
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		401m	South

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	402m	South West
E	Business Zone - Commercial Core		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	411m	South
SP2	Infrastructure	Community Facility	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		419m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		440m	North West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		442m	East
н	Recreation Zone - Public Recreation		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	444m	South West
В	Business Zone - Local Centre		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	445m	South East
SP2	Infrastructure	Community Facility	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		448m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		449m	North West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		462m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		482m	South West
SP2	Infrastructure	Educational Establishment	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		489m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		497m	North
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		503m	South West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		503m	West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		505m	South
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		506m	North West
F	Special Purposes Zone - Comminity		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	506m	South

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
С	Busines Zone - Local Centre		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	507m	South West
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		508m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		514m	West
I	Recreation Zone - Private Recreation		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	525m	South
B8	Metropolitan Centre		Sydney Local Environmental Plan 2012	14/08/2020	14/08/2020	14/08/2020	State Environmental Planning Policy Amendment (Western Gateway Sub- precinct) 2020	534m	North East
A	Residential Zone - Medium Density Residential		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	551m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		554m	South West
B8	Metropolitan Centre		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		559m	North East
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		559m	North
н	Recreation Zone - Public Recreation	Recreation Zone	State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	571m	South West
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		575m	North
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		584m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		588m	East
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		608m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		611m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		616m	North West
B8	Metropolitan Centre		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		617m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		623m	East
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		626m	West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment Distanc		Direction
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		646m	North
D	Business Zone - Mixed Use		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	653m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		658m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		674m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		688m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		695m	North
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		720m	South
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		723m	East
B2	Local Centre		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		726m	North West
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		726m	South
SP2	Infrastructure	Classified Road	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		746m	South
SP2	Infrastructure	Educational Establishment	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		817m	West
SP2	Infrastructure		Sydney Local Environmental Plan 2012	12/12/2014	12/12/2014	14/08/2020	Amendment No 9	823m	South
Н	Recreation Zone - Public Recreation		State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	State Environmental Planning Policy (Major Development) Amendment (State Significant Precincts) 2016	837m	South West
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		847m	East
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		850m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		863m	North
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		892m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		893m	East
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		894m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		901m	North
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		905m	East
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		918m	South East
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		918m	North West
B4	Mixed Use		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		927m	East
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		932m	North West
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		937m	North
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		960m	East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Community Facility	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		969m	South
RE1	Public Recreation		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		969m	North West
SP2	Infrastructure	Educational Establishment	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		971m	North West
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		986m	East
R1	General Residential		Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	14/08/2020		997m	South

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### **Heritage Items**



## Heritage

6-8 Woodburn Street, Redfern, NSW 2016

### **Commonwealth Heritage List**

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

## **National Heritage List**

What are the National Heritage List Items located within the dataset buffer? Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
<u>106189</u>	Greater Eveleigh Railway Precinct	Henderson Rd, Eveleigh NSW	1/12/033/0026	Historic	Nomination now ineligible for PPAL		263m	South West

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

## **State Heritage Register - Curtilages**

#### What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5012230	Sydney Terminal and Central Railway Stations Group	Great Southern and Western Railway; Illawarra Rail, Sydney	SYDNEY	02/04/1999	01255	2247	104m	North East
5050395	Cathedral of the Annunciation of Our Lady	242 Cleveland Street Redfern	SYDNEY	17/04/2012	01881	2523	129m	East
5044752	Redfern Aboriginal Children's Services	18 George Street, Redfern	SYDNEY	13/07/2015	01951	2670	168m	East
5012154	Redfern Railway Station group	Great Southern and Western Railway, Redfern	SYDNEY	02/04/1999	01234	2340	241m	South West
5045142	Mortuary Railway Station and site	Regent Street, Chippendale	SYDNEY	02/04/1999	00157	200	296m	North East
5045257	Fitzroy Terrace	6-18 Pitt Street Redfern	SYDNEY	02/04/1999	00083	277	320m	East
5045103	Eveleigh Railway Workshops	Great Southern and Western Railway, Redfern	SYDNEY	02/04/1999	01140	2347	362m	South West
5051300	Redfern Post Office	113 Redfern Street Redfern	SYDNEY	22/12/2000	01439	2140	387m	South East
5014147	Eveleigh Chief Mechanical Engineers Office	Great Southern and Western Railway, Redfern	SYDNEY	02/04/1999	01139	2341	444m	South West

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## **Environmental Planning Instrument - Heritage**

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
C9	Chippendale	Conservation Area - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	37m	North West
1163	Flat building group 'Strickland Building'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	55m	North
1199	Former Mercantile Bank Chambers	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	65m	North East
C56	Redfern Estate	Conservation Area - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	81m	South East
1198	Cottage	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	93m	North East
C19	Darlington	Conservation Area - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	100m	West
1824	Central Railway Station group	Item - General	State	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	103m	North East
11476	Greek Orthodox Church group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	129m	East
1162	Terrace group 'Dangar Terrace'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	151m	North West
11314	Terrace house	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	168m	East
11315	Commercial building 'Star House'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	180m	South East
1197	Former Crown Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	192m	North East
11316	Fence posts on Renwick Street	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	196m	South East
I1406	Prince Alfred Park	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	203m	East
1527	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	220m	West
1161	Shannon Hotel (87 -89 Abercrombie Street)	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	224m	North West
1191	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	227m	North
1192	Item - General	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	229m	North
11361	Wood Block paving beneath bitumen surface	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	238m	South East
1536	Terrace house 'The Settlement' (17 Edward Street)	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	238m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
1195	Co-Masonic Temple	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	240m	North East
1187	Sydney City Mission Hall	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	244m	North
1160	Warehouse 'JC Goodwin & Co'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	253m	North West
11357	Cottage	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	261m	South East
11	Redfern Station Booking Office	Item - General	State	State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	270m	South West
11292	House	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	273m	East
1210	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	275m	North
11363	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	277m	South East
1159	Warehouse 'Macintosh Tyres & Co'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	278m	North West
1196	Terrace group (83- 85 Regent Street)	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	283m	North
11293	Cottage group 'Tutulla' & 'Tivoli'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	286m	East
1194	Mortuary Railway Station	Item - General	State	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	289m	North East
1526	Former service station 'Hahn Automotive Services'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	292m	West
11364	Terrace group 'Tamworth Terraces'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	294m	South East
11322	Terrace house 'Waratah'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	296m	South West
1537	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	296m	West
11317	Redfern Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	297m	South East
1157	Corner shop & terrace group 'Centennial Terrace'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	301m	North West
11365	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	311m	South East
11294	Park Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	313m	East
1186	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	315m	North West
1158	Shop & residence	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	318m	North
11331	Terrace group 'Fitzroy Terrace'	Item - General	State	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	320m	East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
11332	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	322m	East
11366	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	324m	South East
11367	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	328m	South East
1209	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	329m	North West
11295	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	330m	East
1185	Former hotel & terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	338m	North West
11337	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	340m	South East
11335	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	342m	South East
11333	Cottage	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	347m	South East
11334	Cottage	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	348m	South East
1525	Britannia Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	349m	West
1184	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	351m	North West
1208	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	353m	North West
C10	Darling Nursery Estate	Conservation Area - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	364m	West
12254	Electricity Substation No. 112	Item - General	Local	Sydney Local Environmental Plan 2012	22/01/2016	22/01/2016	29/01/2021	365m	South
1538	Industrial building	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	375m	West
11354	Former Redfern Municipal Electric Light Station	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	376m	South
C18	Golden Grove	Conservation Area - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	378m	West
11338	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	378m	South East
11349	Redfern Post Office	Item - General	State	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	387m	South East
I1340	Former shop & residence 'Quirk's Store'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	395m	South East
11351	Terrace house	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	398m	South East
12245	Former McMurtrie, Kellermann & Co Factory	Item - General	Local	Sydney Local Environmental Plan 2012	22/01/2016	22/01/2016	29/01/2021	398m	South West
11318	Redfern Telephone Exchange	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	398m	South East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
11348	Former St Vincent's Roman Catholic Church group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	404m	South East
11350	Shop & residence	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	405m	South East
11336	Terrace house	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	409m	South East
10	Telecommunicatio ns Equipment Centre	Item - General	State	State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	415m	South West
1171	Former warehouse 'WA Davidson Clothing Manufacturers'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	424m	North West
1170	UTS Blackfriars Campus group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	428m	North West
11287	Cottage 'Dascom E Cottage'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	434m	South East
1517	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	441m	South West
1165	St Benedict's Church group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	441m	North
11477	Former Cleveland Street Public School	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	443m	East
14	Former Court House Building	Item - General	State	State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	445m	South East
11339	Redfern Town Hall	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	448m	South East
11288	Cottage	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	457m	South East
1190	Victoria Park Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	463m	North West
11341	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	464m	South East
9	Chief Mechanical Engineer's Office Building	Item - General	State	State Environmental Planning Policy (State Significant Precincts) 2005	24/03/2016	24/03/2016	24/03/2016	464m	South West
11362	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	474m	South East
11342	Terrace house	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	478m	South East
11359	Terrace group	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	481m	South East
1178	Rose Hotel	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	486m	West
1188	Warehouse 'EG Bishops Pty Ltd'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	488m	North West
1189	Corner shop & residence	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	494m	North West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
1193	Former commercial building 'John Storey Memorial Dispensary'	Item - General	Local	Sydney Local Environmental Plan 2012	14/12/2012	14/12/2012	29/01/2021	498m	North East

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## **Natural Hazards**

6-8 Woodburn Street, Redfern, NSW 2016

## **Bush Fire Prone Land**

#### What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
No records in buffer		

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

### **Ecological Constraints - Vegetation & Ramsar Wetlands**



6-8 Woodburn Street, Redfern, NSW 2016

# **Native Vegetation**

What native vegetation exists within the dataset buffer?

Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Dir
Urban_E/N	Urban_E/N: Urban Exotic/Native			00: Not assessed	00: Not assessed	0: Not assessed	Urban Exotic/Native	74m	South East

Native Vegetation of the Sydney Metropolitan Area : NSW Office of Environment and Heritage Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

## **Ramsar Wetlands**

#### What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment

#### 6-8 Woodburn Street, Redfern, NSW 2016

### **Groundwater Dependent Ecosystems Atlas**

Туре	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

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## Inflow Dependent Ecosystems Likelihood

Туре	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

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### **NSW BioNet Atlas**

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Crinia tinnula	Wallum Froglet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna grisea	Sooty Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	Rokamba;camba; Jamba
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone- curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	Rokamba;camba; Jamba
Animalia	Aves	Calidris tenuirostris	Great Knot	Vulnerable	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black- Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black- Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Charadrius leschenaultii	Greater Sand- plover	Vulnerable	Not Sensitive	Vulnerable	Rokamba;camba; Jamba
Animalia	Aves	Charadrius mongolus	Lesser Sand- plover	Vulnerable	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Charadrius veredus	Oriental Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chlidonias leucopterus	White-winged Black Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Endangered Population, Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Erythrotriorchis radiatus	Red Goshawk	Critically Endangered	Category 2	Vulnerable	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	Rokamba;Jamba
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Manorina melanotis	Black-eared Miner	Critically Endangered	Not Sensitive	Endangered	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema chrysogaster	Orange-bellied Parrot	Critically Endangered	Category 3	Critically Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensi s	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
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Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	Pterodroma solandri	Providence Petrel	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit- Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stercorarius longicaudus	Long-tailed Jaeger	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Stercorarius parasiticus	Arctic Jaeger	Arctic Jaeger Not Listed Not Sensitive Not Listed		Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stercorarius pomarinus	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Inerable Not Sensitive		
Animalia	Aves	Sula dactylatra	Masked Booby	Vulnerable	Not Sensitive	Not Listed	Rokamba;Jamba
Animalia	Aves	Thalassarche chrysostoma	Grey-headed Albatross	Not Listed	Not Sensitive	Endangered	
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	Rokamba;Camba; Jamba
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa incana	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa Sooty Owl		Vulnerable	Category 3	Not Listed	
Animalia	a Aves Xenus cinereus Terek Sand		Terek Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Animalia Insecta Petalura gigantea		Giant Dragonfly	Endangered	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements	
Animalia	Mammalia	Aepyprymnus rufescens	Rufous Bettong	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur- seal	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur- seal	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy- possum	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable		
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered		
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Endangered	ngered Not Sensitive Endangered			
Animalia	Mammalia	Dugong dugon	Dugong	Endangered	Not Sensitive	Not Listed		
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Endangered	Not Sensitive	Endangered		
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable		
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent- winged Bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Endangered Population	Not Sensitive	Not Listed		
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Phascolarctos cinereus	Koala	Vulnerable	Not Sensitive	Vulnerable		
Animalia	Mammalia	Pseudomys gracilicaudatus	Eastern Chestnut Mouse	Vulnerable	Not Sensitive Not Listed			
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable		
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad- nosed Bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Mammalia	Vespadelus troughtoni	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed		
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed		
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered		
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable		
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Endangered	Not Sensitive	Endangered		
Animalia	Reptilia	Tiliqua occipitalis	Western Blue- tongued Lizard	Vulnerable	Not Sensitive	Not Listed		
Fungi	Flora	Camarophyllopsis kearneyi		Endangered	Not Sensitive	Not Listed		
Fungi	Flora	Hygrocybe anomala var. ianthinomarginata		Vulnerable	Not Sensitive	Not Listed		
Fungi	Flora	Hygrocybe aurantipes		Vulnerable	Not Sensitive	Not Listed		
Fungi	Flora Hygrocybe austropratensis			Endangered	indangered Not Sensitive Not Listed			
Fungi	Flora	Hygrocybe collucera		Endangered	Not Sensitive	Not Listed		
Fungi	Fungi Flora Hygrocybe driseoramosa			Endangered	Not Sensitive	Not Listed		

Kingdom	Class	Scientific	Common	NSW Conservation Status Class		Federal Conservation Status	Migratory Species Agreements
Fungi	Flora	Hygrocybe Ianecovensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe reesiae		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe rubronivea		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia gordonii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia terminalis subsp. Eastern Sydney	Sunshine wattle	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Allocasuarina portuensis	Nielsen Park She- oak	Endangered	Category 3	Endangered	
Plantae	Flora	Amperea xiphoclada var. pedicellata		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Asterolasia buxifolia		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Caladenia tessellata	Thick Lip Spider Orchid	Endangered	Category 2	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Diuris arenaria	Sand Doubletail	Endangered	Category 2	Not Listed	
Plantae	Flora	Doryanthes palmeri	Giant Spear Lily	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus fracta	Broken Back Ironbark	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus pulverulenta	Silver-leafed Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Genoplesium baueri	Bauer's Midge Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Grammitis stenophylla	Narrow-leaf Finger Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	Grevillea caleyi	Caley's Grevillea	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Leptospermum deanei		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora Pimelea curviflor var. curviflora			Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Prasophyllum fuscum	Slaty Leek Orchid	Critically Endangered	Category 2	Vulnerable	
Plantae	Flora	Prostanthera marifolia	Seaforth Mintbush	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Senecio spathulatus	Coast Groundsel	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Thesium australe	Austral Toadflax	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Triplarina imbricata	Creek Triplarina	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Vulnerable	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

NSW BioNet:  $\ensuremath{\mathbb{C}}$  State of NSW and Office of Environment and Heritage

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LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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Appendix I – Boreholes Logs



Drilling

Project Detailed Site Investigation Location 6-8 Woodburn Street, Redfern NSW Position Refer to Figure 2 E25342.E02

Job No. Client

Sampling

YPI2B Ownership Trust No 6

Contractor BG Drilling Hand Portable Rig & Track-mounted Drilling Rig Drill Rig

#### **BOREHOLE: BH1**

Sheet 1 OF 1 5/10/21 Date Started Date Completed 5/10/21 Logged DS Checked LB

-90° Inclination

**Field Material Description** 

STRUCTURE AND

	METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	<b>USCS SYMBOL</b>	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE		STRUCTURE AND ADDITIONAL OBSERVATIONS
ŀ	Б			0 —	0.23			P	-	CONCRETE: 230 mm thick.	-	-	CONCRETE HARDSTAND
	AD/T			-	1.00	ES 0.30-0.40 m ES 0.90-1.00 m		× ×	CI	Silty CLAY: medium plasticity, pale grey/red brown, no odour.	M ( <p< td=""><td>_) -</td><td></td></p<>	_) -	
(5PJ < Commong-lies> 19/11/2021 06:13 10:0.000 Dangel Lab and In Shu Tool - DSDI L40: EIA 1.03 2014-07-05 Pig EIA 1.03 2014-07-05	NMLC ADT	-	GWNE		1.00 2.75 6.22 6.85 7.43	ES 0.90-1.00 m			СН	Silty CLAY: high plasticity, pale grey/orange brown, no odour. SHALE: dark grey to red-brown, very thinly bedded, with sub-horizontal siltstone laminations and ironstaining. From 6.22 m, colour change to dark grey/grey From 6.85 m, colour change to pale grey, thinly to medium bedded Hole Terminated at 7.43 mBGL; Target Depth Reached.			BEDROCK
3 Log IS AU BOREHOLE 3 E25342.E02 LOGS				-   									
EIA LIB 1.03.GLE						This borehol	le lo	og shou	ıld be	e read in conjunction with EI Australia's accompanying star	ndaı	d not	es.



Client

Project Detailed Site Investigation Location 6-8 Woodburn Street, Redfern NSW Position Refer to Figure 2 Job No. E25342.E02 YPI2B Ownership Trust No 6

BG Drilling Contractor Drill Rig Rig CE 180 Inclination -90°

#### TEST: BH2M

Sheet 1 OF 1 Date Started 5/10/21 Date Completed 5/10/21 Logged DS Checked LB

Drilling Sampling Field Material Description														
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	<b>USCS SYMBOL</b>	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	PIEZOM ID Static Water L BH2M	ETER DETAILS	
рт			0 —	0.19			<i>P</i>	-	CONCRETE: 190 mm thick.		-			
-			-	0.35	ES 0.50-0.60 m		ŹX	-	BRICK: 150 mm thick.	-	-			
			-	1.00			$\bigotimes$				_			
			-	1	ES 1.10-1.20 m			CL	Sandy CLAY: low plasticity, pale grey mottled orange brown, fine to medium grained sand, no odour.				<u>B</u>	
			-	-							-		<b>1</b> 5	
			2 —	{										-
			-	2.40				CL	Silty CLAY: low plasticity, pale grey to red-brown, with fine to	-				
			-	-			<u> </u>		medium ironstone gravels, no odour.				20 Sti <b>⊲</b> — Cuttings	
			-				×							
			-	3.50			×		From 3.5 m, less ironstone gravels.	1			<u>B</u>	
		ΔM	4 —	-			× ·						↓ Casing	mm _
		21 7F	-	-			x —x							
AD/		/10/20	-	-			×			м				
			-	-			x			( <pl< td=""><td>)</td><td></td><td>- St</td><td></td></pl<>	)		- St	
			-	-			×							
			6 —	6.00			<u> </u>		From 6.0 m with dark gray occasional bands of your low to low	-		600-6 20		-
9			-	-			×		strength, distinctly weathered shale, no odour.				Bentonite	
014-07-0	-		-	-			××							
A 1.03 2			-	-			×							
35 P.J.: E			-				xx							
014-07-0			8—	4			x							-
A 1.03 2			-	-										
D LUD: E			-	-			×						Sand	
001 - DG	1		-	9.32			— × — ·							
In Situ T			-				× - ×	CI	Silty CLAY: low plasticity, dark grey, with occasional bands of very low strength, distinctly weathered shale, no odour.					
Lab and			10 —	9.86 10.05			x		From 9.86 m, colour change to grey.				uPVC 50	mm -
Datgel			-	10.38			· · · · ·		SANDSTONE: fine to medium grained, grey, very thinly to thinly bedded, with pale orange-brown ironstaining and dark grey sub					
10.000			-				· · · · ·		horizontal siltstone laminations	/				
			-				· · · · ·							
NN			-				· · · · ·							
- 16>>			12—	11.93			: : : : : : : : :		From 11.93 m medium to thickly bedded	-				-
Drawing			-				· · · · ·						Bentonite	
* [H5]			-	-										
12 LOGS			-											
25342.E(	-		-	13.52		-	::::		Hole Terminated at 13.52 mBGI	-	<u> </u>			
JLE 3 E			14 —	-					Target Depth Reached.					-
SOREH			-	-										
I IS AU F														
GLB LQ	1			L	<u> </u>	L						I		
UB 1.03.					I his borehole	e lo	g shou	ng pe	e read in conjunction with EI Australia's accompanying sta	ndaro	ı not	es.		
EIA														

	Contarr	al al	IST	Geotechr	Project Location Position Job No. Client	Deta 6-8 V Refe E253 YPI2	iled Sit Woodb r to Fig 342.E0 B Owr	te Inv ourn S gure 2 02 nersh	estigation treet, Redfern NSW 2 Contractor BG Drilling p Trust No 6 Drill Rig Rig CE 180 Inclination -90°			Sheet1 OF 1Date Started7/11/21Date Completed7/11/21LoggedEMCheckedLB	
		Dri	lling		Sampling				Field Material Des	cripti	on		_
METHOD	PENETRATION	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE		PIEZOMETER DETAILS	
Ц	-	-	_	0.24	ES 0 30-0 40 m			- CI	CONCRETE: 240 mm thick. Silty CLAY: medium plasticity, pale grey to red brown, no odour.	-			
d In Situ Tool - DDD   Lib: El A 1.03 2014/07/05 Pr⊈ El A 1.02 2014/07/05 NMI C NMI C NMI C		GWNE		<u>2.00</u> <u>5.20</u> <u>6.10</u>	ES 0.30-0.40 m				Silty CLAY: medium plasticity, pale grey to red brown, no odour. From 2.0 m, pale grey with angular to sub angular shale gravels, no odour. From 5.2 m, with very low to low strength, distinctly weathered shale bands, no odour. SANDSTONE: fine to coarse grained, pale grey, thinly to medium beddded, with sub-horizontal, dark grey claystone laminations. Hole Terminated at 8.86 mBGL; Target Depth Reached.			Cuttings uPVC 50 mm Casing Bentonite Sand uPVC 50 mm Screen Bentonite	
el Lab ar			10 —	-									-
3:14 10.0.000 Datg			-										
1/2021 0			-					1					
>> 19/1			-					1					
<ul> <li>&lt;<drawingfile< li=""> </drawingfile<></li></ul>			12—										
OGS.GF			-										
42.E02 l			-										
g IS AU BOREHOLE 3 E2534			- 14										
EIA LIB 1.03.GLB Lc	1	1	I	L	This borel	hole lo	og shou	uld b	e read in conjunction with El Australia's accompanying st	andar	d notes.		

ſ

#### **TEST PIT: TP1**



ProjectDetailed Site InvestigationLocation6-8 Woodburn Street, Redfern NSWPositionRefer to Figure 2Job No.E25342.E02ClientYPI2B Ownership Trust No 6

Contractor -Machine Shovel; manual excavation Bucket Size

Date Logged Checked

Sheet

DS LB

1 OF 1

7/11/21

	Excavation Sampling								Field Material Description						
METHOD		RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	<b>USCS SYMBOL</b>	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS		
F				0.0 —				₽ <u>►</u> 4 _		CONCRETE: 200 mm thick.			CONCRETE HARDSTAND		
Ę	5			-							-	-			
	_			-	0.20	ES 0.20-0.30 m			CI	FILL: Silty CLAV: medium plasticity, pale arey mottled orange to	-		FILL		
		-	٨NE	_				$\bigotimes$		brown/red brown, trace fine to medium, sub-angular to angular gravels and brick fragments, no odour.					
Ę	<u>ا</u> ډ		õ					$\bigotimes$							
НАН				_				$\bigotimes$			M ( <pl< td=""><td>) -</td><td></td></pl<>	) -			
				0.5 —		ES 0.50-0.60 m		$\bigotimes$					-		
$\vdash$		_			0.60			$\langle X \rangle$		Hole Terminated at 0.60 mBGL;	-				
				-						Target Depth Reached.					
				_											
				_											
				1.0 —									-		
				-											
				_											
8				_											
2014-07-(															
EIA 1.03				-											
-05 Prj: E				1.5 —									-		
3 2014-07				-									-		
EIA 1.03				-											
GD   Lib				_											
u Tool - E															
and In Sit				-											
tgel Lab a				2.0 —									-		
.000 Da				-											
9:14 10.(				-									-		
1/2021 0				_											
e>> 19/1															
rawingFik				-											
PJ < <di< td=""><td></td><td></td><td></td><td>2.5 —</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>  -</td></di<>				2.5 —									-		
LOGS.G				-											
5342.E02				-											
LE 3 E2!				_											
OREHOI															
IS AU B				-											
B 1.03.GLB Log				3.0 —		This boreho	le lo	g shou	ıld be	read in conjunction with El Australia's accompanying sta	ndaro	d note	)		
EIA LI															

#### TEST PIT: TP2



Project Detailed Site Investigation Location 6-8 Woodburn Street, Redfern NSW Position Refer to Figure 2 Job No. E25342.E02 Client YPI2B Ownership Trust No 6

Field	d Material Description
Bucket Size	
Machine	Shovel; manual excavation
Contractor	-

Sheet	1 OF 1
Date	7/11/21
Logged	DS
Checked	LB

LB

	Excavation Sampling Field Material Description											
$\vdash$			vauon		Sampling			Ļ	Field Material Desc		//I ≻	
METHOD	EXCAVATION	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBO	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENC DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0 —				₽ ⊾ 4 ⊿	-	CONCRETE: 100 mm thick.		_	CONCRETE HARDSTAND
			-	0.10			7	-	BRICK: 200 mm thick	-		
F			-				Γ,			-	_	
	-	MNE		0.20			ΓZ.					
		0	-	0.30			x	CI	Silty CLAY: medium plasticity, pale grey to red brown, no odour.			
	-		-		ES 0.40-0.50 m		x			M	-	-
HAN			-0.5	0.50			— ×				1	
									Hole Terminated at 0.50 mBGL; Target Depth Reached.			
			-									-
			-									-
			-									-
			-									-
			1.0 —									-
			-	-								-
			_									
-07-05			-									-
03 2014			-									-
0: EIA 1.			15									
-07-05 P			1.0									
03 2014			-									-
b: EIA 1.			-	-								-
DGD   LI			-	-								-
L Tool - [												
nd In Siti			-									-
el Lab al			2.0 —	-								-
00 Datg			-	-								-
4 10.0.0												
021 09:1												
19/11/20			-	-								-
gFile>>			-	-								-
<drawin< td=""><td></td><td></td><td>25-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></drawin<>			25-									
GPJ <			2.0									
g LOGS			-									-
25342.E(			-									-
LE 3 E2			_									
OREHO												
IS AU B			-									-
-B Log			3.0 —									
1.03.GL	This borehole log should be read in conjunction with EI Australia's accompanying standard notes.											
EIA UB												

## 

Project

Location

Position

Job No.

Client

Detailed Site Investigation

YPI2B Ownership Trust No 6

Refer to Figure 2

E25342.E02

6-8 Woodburn Street, Redfern NSW

**TEST PIT: TP3** 

O - mine at - m	
Contractor	-
Machine	Shovel; manual excavation
Pucket Size	

#### 1 OF 1 Sheet 7/11/21 Date Logged DS Checked

LB

	-	Exca	vation		Sampling	-		,	Field Material Desc	riptic	n S	
METHOD	EXCAVATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	<b>USCS SYMBOL</b>	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
DT	-	BWNE	0.0 — -				V & V & V & V & V	-	CONCRETE: 350 mm	-	-	CONCRETE HARDSTAND
HAND		U	-	0.35	ES 0.40-0.50 m			CI	Silty CLAY: medium plasticity, pale grey to orange brown, no odour.	M ( <pl< td=""><td>-</td><td></td></pl<>	-	
			-0.5	0.50			×		Hole Terminated at 0.50 mBGL; Target Depth Reached.		1	
			-									
			-									
			1.0—									-
00-1			-									
-1-1-02 5014-0			-									
100-10-107 00-11			-									
			-									
			2.0-									-
Risso 0000001 ±1			-									
2// 10/11/EVE1 00			-									
			- 2.5—									-
200421E00 E00			-									
			-									
			3.0 —		This borehole	e lo	g shou	ld be	e read in conjunction with EI Australia's accompanying star	ndaro	d note	28.
1												

												TEST PIT: TP4	
	Contami	al	ISTI	ralia on   Geotech	Project Location Position Job No. Client	Deta 6-8 \ Refe E253 YPI2	iled Sif Noodb r to Fig 342.E0 B Owr	ie Inv urn S gure 2 2 nershi	estigation treet, Redfern NSW 2 Contractor - p Trust No 6 Machine Shovel; manu	al exc	cavati	Sheet 1 OF 1 Date 7/11/21 Logged DS on Checked LB	
									Bucket Size				_
		Exca	vation		Sampling				Field Material Desc	ripti	on ⊳		
METHOD	EXCAVATION	WATER	DEPTH (metres)	<i>DEPTH</i> RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBO	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE		STRUCTURE AND ADDITIONAL OBSERVATIONS	
			0.0 —				<i>₽</i> , ⊾ 4 ⊿	<u> -</u>	TILE: 10 mm thick.		-	CONCRETE HARDSTAND	
'n		ų	-	0.14					CONCRETE: 140 mm thick.	-	-	- -	
AND		9 Q	-	-	ES 0.20-0.30 m			<u></u>	FILL: Gravelly SAND; fine to coarse grained, brown to orange-brown, with clay, brick, plastic and tile fragments, fine to coarse grained sub-angular to angular gravels, no odour	D	-		<b> </b>
Ħ				0.30			$\bigotimes$		Laber Terreinsted at 0.00 ar 201	/			Ļ
			_						Hole Terminated at 0.30 mBGL; Target Depth Reached.				
			0.5 —										-
			-	-									
			-	-									
			-	-									
			-	-									
			10										
			1.0										-
			-										
			-										
			-	-									
			-										
			1.5										-
			-	-									
			-	-									
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			2.0										
			2.0										
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			-	-									
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			25-										.
			2.0										
			-										
			-										
			-										
			-										
			30-										
					This boreh	nole lo	og shou	uld be	e read in conjunction with EI Australia's accompanying sta	ndar	d note	es.	

DGD111h-FIA1032014-07-05 Pri-FIA1033

I ah and In Situ Tool

S

FIALIR 1 03 GI B

Appendix J – Field Data Sheets

#### WATER SAMPLING FIELD SHEET



I

Site Addre	ess: 6	8 Wood	lburn S	it, Red	firm		Job Numb	ber: EZ5342
Client:							Date:	13/10/21
Field Staff	f: AS/	TC					Sampling	Location ID BUZM
Well Loca	ition:						Round No	D:
MEDIUM		¢,	Groundwat	ter 🗆 S	Surface Wa	ater	□Stormw	ater DOther:
SAMPLIN	IG POINT	INFO						
Well Insta	llation Da	te:					Stick up /	down (m): - (+ above ground - below ground)
Initial Wel	I Depth (n	nBTOC):					Screen In	terval (mBTOC):
Previous	Sampling	Date:				11.121	Previous	SWL (mBTOC):
PID READ	DINGS							
PID Head	space (pp	m):					PID Back	ground (ppm):
PID Breat	hing Space	ce (ppm):						
PRE PUR	GE							
Total Wel	Depth (n	BTOC):	10.53				Well Hea	d Condition:
SWL (mB	TOC):	3.80	5				Water Co	lumn (m):
PHASE S	EPARAT	ED HYDR	OCARBON	IS (PSH)				
Depth to F	PSH (mB)						PSH Visu	ally Confirmed (Bailer):
PSH Thic	kness (mr	n):						
Field Filte	ered							
Ves (0.45	um)	176		-12			No	(Request Jab 0.45 um filter the sample)
PURGE A								
Sampling	Mothod		Pladda	r I	Dorietalti	<u>с П</u>	Submorsit	
Donth of I		+ (mptoc		1 1				
Dump Dro			). 00				Discharge	Timor
Pump Pre		gulator (ps	si): 2>				Discharge	
vveather	Conditions	S: CELIT					Cycle:	Grad diama and a second diama and a
Pump on	time:	PADAME	FEDO				Pump on	ume: 2.23
WATER C	JUALITY	PARAME	IERS				Rump To	at Data and Time:
FIDDE Ma			-	50	D. I.		Dump re	
Time	Volume (L)	SWL (mbtoc)	(°C)	EC (uS/cm)	(mV)	(mg/L)	pH (units)	Comments (colour, turbidity, odour, sheen etc.)
2:15	0 5	2.81	7.7.07	635	-1787	0.00	7.77	hours had no in
7.12	(.0	200	77.07	487	-1500	0.00	204	the file
2:12	15	5.50	27.08	11.72	81	0.00	0.04	
2:14	20	5.00	77.08	(1.91	-06.0	A 1000	6.48	
216	20	-9-54	22.00	1115	669	0.00	6.46	T T T T
6.17	6.7	3,30	22.00	415			- 13	
				1				
Ctab	III. a Al a sa sa							
Stab	insation ra	ange.	±0.2°C	±3%	±20mV	±10%	±0.2	
3 cons	secutive re	adings						
OTHER	OMMEN	IS/OBSEI	RVATIONS	5: / \				
		CRY	OT	teel	en			
		- /						
SIGNATU	JRE:	1 ( )	7	le				
	1-	1 200						

#### WATER SAMPLING FIELD SHEET



								elaustralia
Site Addre	ess:			1.01.010			Job Numb	per:
Client:	0001						Date:	
Field Staf	÷f.				5		Sampling	Location ID BU3M
Well Loos	tion:						Round Mc	- Cocation ID (Sec >
MEDILIM	ation.		Proundwo			ator		votor DOthor:
SAMDI IN			STOUTIOWA			ater	LISTOHIIW	
Mall Inote	Id FOINT						Ctick up /	down (m); (+ above ground - below ground
	III Denth (m						Slick up /	
Initial we	n Depth (n	IBTUC):					Screen in	
Previous	Sampling	Date:					Previous	SVVL (MBTOC):
PID REAL	DINGS							
PID Head	ispace (pp	m):					PID Back	ground (ppm):
PID Breat	thing Spac	e (ppm):						
PRE PUR	RGE							
Total Wel	II Depth (m	BTOC):					Well Hea	d Condition:
SWL (mB	BTOC):						Water Co	olumn (m):
PHASE S	SEPARATE	ED HYDRO	CARBOI	NS (PSH)				
Depth to I	PSH (mBT	OC):					PSH Visu	ally Confirmed (Bailer):
PSH Thic	kness (mr	n):						
Field Filt	ered							
Yes (0.45	õμm)						No	(Request lab 0.45 µm filter the sample)
PURGE A	AND SAMI	PLE				34 		
Sampling	g Method		Bladde	er E	Peristalti	c 🗆	Submersit	ble DOther:
Depth of	Pump Inle	(mBTOC)	):				Fill Timer	•
Pump Pre	essure Reg	gulator (ps	i):				Discharge	e Timer:
Weather	Conditions	):					Cvcle:	
Pump on	time:						Pump off	time:
WATER (	QUALITY	PARAMET	ERS				i.	
Probe Ma	ake and Mo	odel:				1	Bump Te	st Date and Time:
	Volume	SWL	Temp	EC	Redox	DO	Hq	
Time			(°C)	(µS/cm)	(mV)	(mg/L)	(units)	Comments (colour, turbidity, odour, sheen etc.)
	(L)	(mbtoc)	(0)				()	
	(L)	(mbtoc)	( 0)				(41110)	
	(L)	(mbtoc)	( 0)					
	(L)	(mbtoc)						
		(mbtoc)	( 0)					
		(mbtoc)						
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		(mbtoc)						
		(mbtoc)						
		(mbtoc)						
Stab	(L)	(mbtoc)	±0.2°C	±3%	±20mV	±10%	±0.2	
Stab 3 cons	(L)	(mbtoc)	±0.2°C	±3%	±20mV	±10%	±0.2	
Stab 3 cons	(L)	(mbtoc)	±0.2°C	±3%	±20mV	±10%	±0.2	
Stab 3 cons OTHER ( Well	(L)	(mbtoc)	±0.2°C RVATIONS	±3%	±20mV	±10%	±0.2	
Stab 3 cons OTHER ( Wel	(L)	(mbtoc)	±0.2°C RVATIONS	±3%	±20mV	±10%	±0.2	
Stab 3 cons OTHER ( Well	(L)	(mbtoc)	±0.2°C	±3%	±20mV	±10%	±0.2	

### Appendix K – Chain of Custody and Sample Receipt Forms

Sheet _/_ of 2						5	Sample	e Matr	rix									A	nalys	is					- mj				Comments
Site: 6-9 W Redferv	loodbr	n St, SW		Proje	342						-						ENM) Suite				(CrS)			vity)					HM A Arsenic Cadmium Chromium Copper
Laboratory:	SGS Austra Unit 16, 33 ALEXANDF P: 02 8594	alia Maddox Stre RIA NSW 201 0400 F: 02 8	eet, 5 594 0499	)				ld filtered		H/BTEX/PAHs CB/Asbestos	H/BTEX/PAHs	H/BTEX				Quantification	Natural Material (	g Suite	oxide		Reducible Sulfur		cation exchange	lectrical conducti	Chloride			<sup>8</sup> / PAH	Mercury Nickel Zinc HM B Arsenic
Sample ID	Laboratory ID	Container Type	Da	Sampling te	g Time	SOIL	WATER	0.45 µm fie	OTHER	HM <sup>A</sup> /TR	HM <sup>A</sup> /TR	HM <sup>A</sup> /TR	BTEX	VOCs	Asbestos	Asbestos (	Excavated	Dewatering	pH / pH per	sPOCAS	Chromium	PFAS	pH / CEC (	pH / EC (e	Sulphate / (			TCLP HM	Chromium Lead Mercury Nickel
BHIM_0.9-1.0		5/10/21	218	T		$\checkmark$					×																		Dewatering Suite pH & EC
BH1M-0.3-04	2	4 4	1			1				$\checkmark$	<i>′</i>																		TDS / TDU Hardness
BH2M_0.5-0.6	3	6/10/21								$\checkmark$																			Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
1 - 1-1.2		<i>c</i> , (																											TRH (F1, F2, F3, F4) BTEX
BH 3.4_0.4-0.5	4	7/10/21								$\checkmark$																			PAH Total Phenol
TP1-0.3-0.4	5	5/10/21								$\checkmark$											×								LABORATORY TURNAROUND
1 20.5-0.6		11 11																											Standard
TP2-0.3-0.4	6	1 . 11								1																			24 Hours
TP3 _0.3-0.4	7	6/10								~																			48 Hours
FP4-0,2-0.3	8	7/10/21	7						-	~			,																72 Hours
QU1	9	5-7/10/21	T			1						$\checkmark$	,																Other
QR1	10	5-7/10/21	50	VL								$\checkmark$																	
Container Type: J = solvent washed, acid r S = solvent washed, acid r	insed, Tefton se insed glass bot	aled glass jar lle		· · · ·			li	nvestig	ator: I	attest t	hat the	se san	nples w sampli	vere col ng proc	lected edures	in acco	ordance	e with s	standar	d El fie	ld		R	eport w	vith El \	Waste C	Classific	cation <sup>-</sup>	Table .
P = natural HDPE plastic t VC = glass vial, Tefton Se	ptum						Samp Print	ler's Na	me (EI)	:	-			Receiv	ved by (	SGS):	0	1				Samp	ler's C	omme	nts:				
ZLB = Zip-Lock Bag		C.	uito 6 01	EE Mil	llor Ctro			15	0	1-	EU	V		60	0.0	e	2	hi					SGS	EHS	Syd	ney	coc	2	
		51	PYRMC	)NT NS	W 2009	el,	2	Ur	ela	r.				<i>N</i>	W	ú,			-				SE	22	244	133	3		
aipuet	ralia		Ph:	9516 0	)722		Date	8/1	0/2	١				Date	11	2/	21	e	6	m									
	tion 1 Geotechnica		COC June	2021 FORM	v.5 - SGS	u	IMP	ORT		tory re	sults to	lab	ທີeia	istrali	a cor	ກລມ			Γ										
							1 icas	o o ma		atory ie	Suns IC	. iuv(	Solar	Jouran	u.001	mau													

Sheet 2 of 2					5	Sampl	e Mat	rix									A	Analys	is									Comments
Site: 6-8 We Redfern	oclburn S	۲. ۲	Pro E2	oject No: 5342												il (ENM) Suite				ur (CrS)		je)	tivity)					HM A Arsenic Cadmium Chromium Copper Lead
Laboratory:	SGS Austra Unit 16, 33 ALEXANDF P: 02 8594	alia Maddox Stre RIA NSW 201 0400 F: 02 85	eet, 5 594 0499				eld filtered		H/BTEX/PAHs PCB/Asbestos	H/BTEX/PAHs	H/BTEX				Quantification	Natural Materia	g Suite	roxide		Reducible Sulf		(cation exchang	electrical conduction	Chloride			<sup>B</sup> / PAH	Mercury Nickel Zinc HM B Arsenic Cadmium
Sample	Laboratory	Container	Samp	oling		ER	μm fie	ER	A /TR	<sup>A</sup> /TR	A /TR	×	S	estos	estos	avated	vaterin	pH pe	CAS	omium	S	CEC	EC (e	hate /			H H	Chromium Lead
		Туре	Date	Time	SOI	MAI	0.45	fo	N D	MH	MH	BTE	Ň	Asb	Asb	Exco	Dev	/ Hq	sPC	Chr	PFA	Hd	Hd	Sulp			TCL	Mercury Nickel
ONAST I DECK	1	57/10/21	VL			5						1																Dewatering Suite pH & EC TDS / TDU
OTI		11 1	T		1																							Hardness Total Cyanide Metals (Al, As, Cd, Cr,
GIT			-		1																	-						Cu, Pb, Hg, Ni, Zn) TRH (F1, F2, F3, F4) BTEX
																												PAH Total Phenol
																												LABORATORY TURNAROUND
																												Standard
																												24 Hours
																												48 Hours
					-	-																						72 Hours
																												Other
Container Type: J = solvent washed, acid ri S = solvent washed, acid ri	insed, Tefton se	aled glass jar				1	nvestig	ator: I	attest ti	hat the	se san	nples w samplii	ere col ng proc	lected edures	in acco	ordance	e with s	standar	d El fie	ld		R	eport w	/ vith El V	Vaste C	lassific	cation 1	Fable .
P = natural HDPE plastic b VC = glass vial, Tefton Se	ptum					Samp	oler's Na t	me (EI)	:				Receiv	ved by (	SGS):		+				Samp	ler's C	omme	nts:	~			L
ZLB = Zip-Lock Bag		Si Si	uite 6 01 55	Miller Stre	ot	05		c1-	- F	W			Go	200	ne	2	hi				1	5	Sen	d	0-	TI	1	Ø
		50	PYRMONT N	VSW 2009	) )	E	Na	de	h.					Y	hi		0	_			14			1	1	.1		P
eiaust	ralia	la	Ph: 9516 b@eiaustra	6 0722 alia.com.a	au	8	101	ZI					1 A	10	1/7	10	26	pp	n		-	ţn	Niri	0161	6	pl	ins	~
Contamination   Remedia	tion   Geotechnical		COC June 2021 FC	DRM v.5 - SGS		Pleas	e e-ma	il labora	atory re:	sults to	: lab(	Deiau	Istrali	a.cor	n.au			1										

#### Yin, Emily (Sydney)

From: Sent: To: Subject: Emmanuel Woelders - ElAustralia <emmanuel.woelders@eiaustralia.com.au> Monday, 11 October 2021 9:36 AM Yin, Emily (Sydney) [EXTERNAL] RE: E25342 -

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

Hi Emily,

Please test for Asbestos ID.

DS is David Saw.

Regards,

Emmanuel Woelders BEnvSc, MEnvSc – Environmental Science Senior Environmental Scientist Project Manager

T 02 9516 0722 M 0475 554 312 E emmanuel.woelders@eiaustralia.com.au

Suite 6.01, 55 Miller Street Pyrmont, NSW 2009

www.eiaustralia.com.au





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From: Yin, Emily (Sydney) [mailto:Emily.Yin@sgs.com] Sent: Friday, 8 October 2021 6:59 PM To: Emmanuel Woelders - EIAustralia Subject: E25342 -

Dear Emmanuel,

Extra bagged sample BH3M\_0.3-0.4 received. Do you want it analysed? Also is DS David Saw? Please advise as soon as possible. Thank You.

Regards,



CLIENT DETAIL	S	LABORATORY DETA	AILS	
Contact	Emmanuel Woelders	Manager	Huong Crawford	
Client	EIAUSTRALIA	Laboratory	SGS Alexandria Environmental	
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	61 2 95160722	Telephone	+61 2 8594 0400	
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	emmanuel.woelders@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com	
Project	E25342 6-8 Woodburn St, Redfern NSW	Samples Received	Fri 8/10/2021	
Order Number	E25342	Report Due	Fri 15/10/2021	
Samples	12	SGS Reference	SE224433	

- SUBMISSION DETAILS

This is to confirm that 12 samples were received on Friday 8/10/2021. Results are expected to be ready by COB Friday 15/10/2021. Please quote SGS reference SE224433 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested
- Yes SGS Yes 8/10/2021 Yes 15°C Standard

Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis Yes Ice Bricks 10 Soil, 2 Water COC 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 -

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SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015

015 Australia 015 Australia

ustralia t +61 2 8594 0400 ustralia f +61 2 8594 0499

www.sgs.com.au



#### CLIENT DETAILS

Client EI AUSTRALIA

Project E25342 6-8 Woodburn St, Redfern NSW

SUMMARY	Y OF ANALYSIS			1		1			
No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1M_0.9-1.0	-	-	26	-	7	10	11	7
002	BH1M_0.3-0.4	29	14	26	11	7	10	11	7
003	BH2M_0.5-0.6	29	14	26	11	7	10	11	7
004	BH3M_0.4-0.5	29	14	26	11	7	10	11	7
005	TP1_0.3-0.4	29	14	26	11	7	10	11	7
006	TP2_0.3-0.4	29	14	26	11	7	10	11	7
007	TP3_0.3-0.4	29	14	26	11	7	10	11	7
008	TP4_0.2-0.3	29	14	26	11	7	10	11	7
009	QD1	-	-	-	-	7	10	11	7



#### - CLIENT DETAILS -

Client EI AUSTRALIA

Project E25342 6-8 Woodburn St, Redfern NSW

SUMMARY	OF ANALYSIS				
No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	VOCs in Water
001	BH1M_0.9-1.0	-	1	1	-
002	BH1M_0.3-0.4	2	1	1	-
003	BH2M_0.5-0.6	2	1	1	-
004	BH3M_0.4-0.5	2	1	1	-
005	TP1_0.3-0.4	2	1	1	-
006	TP2_0.3-0.4	2	1	1	-
007	TP3_0.3-0.4	2	1	1	-
008	TP4_0.2-0.3	2	1	1	-
009	QD1	-	1	1	-
010	QR1	-	-	-	11
011	Trip Blank	-	-	-	11
012	BH3M_0.3-0.4	2	-	-	-

\_ CONTINUED OVERLEAF

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 .



#### - CLIENT DETAILS -

Client EI AUSTRALIA

- SUMMARY OF ANALYSIS -

Project E25342 6-8 Woodburn St, Redfern NSW

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	Volatile Petroleum Hydrocarbons in Water
010	QR1	1	7	9	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 .

heet 1 of	1				s	ample	e Matri	ix					_				Α	nalys	is									Comments
ite: 6-8 b Redfe	j.oollarr	st,	Pr E 2	oject No: 5342												(ENM) Suite				r (CrS)		(=	ivity)					HM ≜ Arsenic Cadmium Chromium Copper Lead
aboratory:	Envirolab Se 12 Ashley Se CHATSWOC P: 02 9910 6	ervices treet, DD NSW 2067 200	7				d filtered		HBTEX/PAHs CB/Asbestos	H/BTEX/PAHs	HBTEX				Quantification	Natural Material	g Suite	roxide		Reducible Sulfu		(cation exchange	ectrical conduct	Chloride			<sup>B</sup> / PAH	Mercury Nickel Zinc HM <sup>B</sup> Arsenic Cadmium
Sample	Laboratory	Container	Sam	oling	]	R.	um fie	ER	/ TRI	ЛR	TR	×	S.	estos	estos (	vated	aterin	PH pe	CAS	mium	Ś	CEC	EC (e	hate /			H H	Lead Mercury
ID	ID	Туре	Date	Time	Soil	WATI	0.45	OTH	HM <sup>4</sup>	ΗW	, MH	BTE	007	Asbe	Asbe	Exca	Dew	/ Hd	sPO	Chre	PFA	/Hd	Hd /	Sulp			1 <u>1</u>	Nickel
GT1		5	5-7/10	21																	<u> </u>						-	Dewatering Suite pH & EC TDS / TDU
					1									1		_				•								Hardness Total Cyanide Metals (Al, As, Cd, Cr,
							-		•				- -				-					-						Cu, Pb, Hg, Ni, Zn) TRH (F1, F2, F3, F4) BTEX PAH
					1																	. <u>.</u>						LABORATORY TURNAROUND
															·			_									•	Standard
																								· .	· ·	<u>'</u> .	<u> </u> .	24 Hours
												.		ļ				<u> </u>									· ·	48 Hours
			-								L			<u> </u>											•	<u> </u>		72 Hours
			<u> </u>				<u> </u>					<u> </u>				-		<u> </u>									·	Other
		-													<u> </u>			<u> </u>	<u> </u>									L
Container Type: J = solvent washed, ad	cid rinsed, Tefton se	aled glass jar					nvestig	ator: I	attest t	hat the	se sar	nples w sampli	vere co ng proi	llected	in acco s.	ordanc	e with s	standai	rd El fie	eld .		R	leport v	vith El V	Naste	Classif	ication	Table .
S = solvent washed, a P = natural HDPE plas VC = glass vial, Teftor ZI B = Zin-I ock Bag	icid rinsed glass boti stic bottle n Septum	le				Samp Print	oler's Na t	me (El)	):	ÉW	,		Recei	ived by $t \left( \int_{\Lambda} \right)$	(Envirola	ab): Lu	2				Samp	ler's C	omme	nts:	Er	virola 12	5 Servi Ashle	ces y St
		Sı	uite 6.01, 55	Miller Stre	et, 9	Sign	iature	he Qu	kr.	r			Sign	ature	$\overline{\mathcal{X}}$	4	-						Ich	No.	Chata P	swood Ph: (02)	19910 ( 7 7	\$200
			Ph: 95	6 0722		Date	1101	21	_ •				Date	<u>   </u>	10/	21	T.	52	f				<u>500</u>	<u></u>	28	100° 1116	17	 †
	Stralia mediation I Geotechnica	l la	b@eiaustr	alia.com.	au' ,	IMP Pleas	ORT	AN7	atory re	sults to	: lab(	@eia	ustral	ia.co	m.au								Uate Time Rece	e Recei e Rece eived F	ived: ived:  3v: c /	152	F	1 
						<u> </u>															<u> </u>		C Dan	ງ: Coo	CSP	ack		• • • • • • • • • • • • • • • • • • •

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

#### SAMPLE RECEIPT ADVICE

Client Details	
Client	El Australia
Attention	Emmanuel Woelders

Sample Login Details	
Your reference	E25342, 6-8 Woodburn St Redfern
Envirolab Reference	280093
Date Sample Received	11/10/2021
Date Instructions Received	11/10/2021
Date Results Expected to be Reported	18/10/2021

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	17
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:



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



The ' $\checkmark$ ' indicates the testing you have requested. THIS IS NOT A REPORT OF THE RESULTS.

#### **Additional Info**

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Sheet ( of ) S					ample	ample Matrix Analysis									Comments													
Site: 6-8 Wood	Aburn S	t, Redle	m Ez	ject No: \$342_												ENM) Suite				(CrS)			vity)					HM <sup>6</sup> Arsenic Cadmium . Chromium Copper
Laboratory:	SGS Austra Unit 16, 33 ALEXANDF P: 02 8594	alia Maddox Stre RIA NSW 2013 0400 F: 02 85	et, 5 594 0499				d filtered		I/BTEX/PAHs CB/Asbestos	I/BTEX/PAHs	/BTEX		herols		luantification	Vatural Material (	Suite	oxide		Reducible Sulfur		cation exchange)	ectrical conductiv	thloride			/ PAH	Lead Mercury Nickel Zinc HM <sup>g</sup> Arsenic
Sample	Laboratory	Container	Sampli	ng		ER	μm fiel	IER	A /TRH	A /TRH	A /TRH	×	s, R	estos	estos O	vated h	atering	atering H pero	H perc	mium	s	CEC (	EC (el	nate / C			P HM <sup>B</sup>	Cadmium Chromium Lead
ID	ID	Туре	Date	Time	SOIL	WAT	0.45	OTH	HM	MH	HM	BTE	VOC	Asbe	Asbe	Exca	Dew	Hd /	sPO	Chro	PFA	/Hq	/Hq	Sulpt			TCLI	Mercury Nickel
BHZM		SIP/Zruc	13/10/21	pm		x	×			×	1		×															Dewatering Suite
aw-0.01	2	1	)	1		×	×				×																	TDS / TDU Hardness
au-ari	3					×					X																	Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
WW-QRBI		V	V	V		×																						TRH (F1, F2, F3, F4) BTEX
GW-OTBI	4	VC	Cas Prep	ered		*						×																Total Phenol
Container Type:	rinsed. Tefton se	aled glass jar	<u> </u>			×	nvestig	ator: I	attest ti	hat the	se sam	×	ere coll	ected	n acco	ordance	e with s	standar	SG S U		HS S 224	45	ey ( 84		Waste	Classific	cation 1	LABORATORY TURNAROUND Standard 24 Hours 48 Hours 72 Hours Other
S = solvent washed, acid rinsed glass bottle P = natural HDPE plastic bottle VC = glass vial, Tefton Septum ZI = a zin-lock Bao				Samp	ler's Na	me (El)	G	)	14	sampiir	Received by (SGS):						Sampler's Comments: Plause cc: Connerve I. Woelder											
Suite 6.01, 55 Miller Street, PYRMONT NSW 2009 Ph: 9516 0722 Iab@eiaustralia.com.au Coctame 2021 FORM v5 - SGS			et, IU	Signature ASQ Date 13/10/21 Pata /10/21@3.25pm IMPORTANT: Please e-mail laboratory results to: lab@eiaustralia.com.au						2m	Please find an-OTI to Envirolas																	

1 SGS Ref: SE224584\_COC



- CLIENT DETAIL	S	LABORATORY DETA	LABORATORY DETAILS							
Contact	Andrew Schmidt	Manager	Huong Crawford							
Client	EI AUSTRALIA	Laboratory	SGS Alexandria Environmental							
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015							
Telephone	61 2 95160722	Telephone	+61 2 8594 0400							
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499							
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com							
Project	E25342 6-8 Woodburn St. Redfern	Samples Received	Wed 13/10/2021							
Order Number	E25342	Report Due	Wed 20/10/2021							
Samples	5	SGS Reference	SE224584							

- SUBMISSION DETAILS

This is to confirm that 5 samples were received on Wednesday 13/10/2021. Results are expected to be ready by COB Wednesday 20/10/2021. Please quote SGS reference SE224584 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested
- Yes SGS Yes 13/10/2021 Yes 18°C Standard

Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis Yes Ice Bricks 5 Water COC 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 -

1 sample has been placed on hold as no tests have been assigned for it. This sample will not be processed.

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SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015

Australia **t** Australia **f** 

ralia t +61 2 8594 0400 ralia f +61 2 8594 0499

www.sgs.com.au



SE224584

#### - CLIENT DETAILS -

Client EI AUSTRALIA

Project E25342 6-8 Woodburn St. Redfern

- SUMMARY	OF ANALYSIS							
No.	Sample ID	Mercury (dissolved) in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Total Phenolics in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH2M	1	22	1	7	9	78	7
002	GW-QD1	1	-	-	7	9	11	7
003	GW-QR1	1	-	-	7	9	11	7
004	GW-QTB1	-	-	-	-	-	11	-
005	GW-QTS1	-	-	-	-	-	11	-

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .

#### Yin, Emily (Sydney)

From:AU.Environmental.Sydney (Sydney)Sent:Wednesday, 17 November 2021 5:34 PMTo:Luiza Barbosa - ElaustraliaCc:AU.SampleReceipt.Sydney (Sydney)Subject:RE: [EXTERNAL] RE: Report Job SE224584, your reference E25342 6-8 Woodburn St.<br/>Redfern, order number E25342

Hi Luiza,

Will report TPH silica results for sample BH2M tomorrow. Thanks.

Kind Regards,

Huong Crawford Industries & Environment Production Manager

 SGS Australia Pty Ltd

 Unit 16, 33 Maddox Street

 Alexandria NSW 2015

 Phone:
 +61 (0)2 8594 0403

 Fax:
 + 61 (0)2 8594 0499

 E-mail:
 Huong.Crawford@sgs.com

 Web:
 www.au.sgs.com

View Your Results Online: engage.sgs.com



From: Luiza Barbosa - Elaustralia <luiza.barbosa@eiaustralia.com.au>
 Sent: Wednesday, 17 November 2021 5:30 PM
 To: AU.Environmental.Sydney (Sydney) <AU.Environmental.Sydney@sgs.com>; AU.SampleReceipt.Sydney (Sydney)
 <AU.SampleReceipt.Sydney@sgs.com>
 Subject: RE: [EXTERNAL] RE: Report Job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

Hi SGS,

E25342

Please run the test at groundwater sample BH2M on a 24h TAT.

Kin dregards

#### Yin, Emily (Sydney)

From:	Luiza Barbosa - Elaustralia <luiza.barbosa@eiaustralia.com.au></luiza.barbosa@eiaustralia.com.au>
Sent:	Wednesday, 17 November 2021 4:28 PM
To:	AU.SampleReceipt.Sydney (Sydney); AU.Environmental.Sydney (Sydney)
Subject:	[EXTERNAL] RE: Report Job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

Hi SGS,

In view of dates of the sample, would still be possible to run a silica gel clean up in this sample to confirm concentration of TRH F3?

Kind regards

Luiza Barbosa Civil/Environmental Engineer

T (02) 9516 0722 M 0406 522 397

E luiza.barbosa@eiaustralia.com.au

Suite 6.01, 55 Miller Street Pyrmont, NSW 2009

www.eiaustralia.com.au





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Please consider the environment before printing this email.

From: AU.Samplereceipt.Sydney@SGS.com [mailto:AU.Samplereceipt.Sydney@SGS.com]
Sent: Wednesday, 20 October 2021 5:06 PM
To: Andrew Schmidt - EIAustralia; Emmanuel Woelders - EIAustralia; Laboratory Results - EIAustralia
Subject: Report Job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342

Dear Valued Customer,

Please find attached the report for SGS job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342.

How are we doing? Please take a quick online Survey



- CLIENT DETAILS	S	LABORATORY DETA	LABORATORY DETAILS								
Contact	Luiza Barbosa	Manager	Huong Crawford								
Client	EIAUSTRALIA	Laboratory	SGS Alexandria Environmental								
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015								
Telephone Facsimile Email	61 2 95160722 (Not specified) Luiza.Barbosa@eiaustralia.com.au	Telephone Facsimile Email	+61 2 8594 0400 +61 2 8594 0499 au.environmental.sydney@sgs.com								
Project Order Number Samples	E25342 6-8 Woodburn St. Redfern-Add E25342 5	Samples Received Report Due SGS Reference	Wed 17/11/2021 Thu 18/11/2021 SE224584A								

- SUBMISSION DETAILS

This is to confirm that 5 samples were received on Wednesday 17/11/2021. Results are expected to be ready by COB Thursday 18/11/2021. Please quote SGS reference SE224584A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Yes SGS Yes 17/11/2021@5:34pm Yes 18°C Next Day Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis Yes Ice Bricks 1 Water Email 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 -

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SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia f Australia f

alia t +61 2 8594 0400 alia f +61 2 8594 0499

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CLIENT DETAILS

#### SAMPLE RECEIPT ADVICE

# Client EI AUSTRALIA Project E25342 6-8 Woodburn St. Redfern-Add SUMMARY OF ANALYSIS Image: Summary of analysis Image: Summary of analysis No. Sample ID Image: Summary of analysis No. Sample ID Image: Summary of analysis 001 BH2M 9

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 .
Please book this in

Regards,

Paul Harley Industries and Environment Client Manager Phone: +61 (0)2 8594 0400 Direct: +61 (0)2 8594 0449 Mobile: +61 (0)4 0797 2867 (Please note my new working hours of Mon-Fri 7:00am-3:00pm)

From: Luiza Barbosa - Elaustralia <<u>luiza.barbosa@eiaustralia.com.au</u>>
Sent: Thursday, 18 November 2021 10:36 AM
To: AU.SampleReceipt.Sydney (Sydney) <<u>AU.SampleReceipt.Sydney@sgs.com</u>>;
AU.Environmental.Sydney (Sydney) <<u>AU.Environmental.Sydney@sgs.com</u>>;
Subject: [EXTERNAL] RE: Report Job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342

# \*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

Hi SGS,

Can you please test GW-RB1 for Copper on a 24h TAT?

Kind regards

### Luiza Barbosa Civil/Environmental Engineer

T (02) 9516 0722 M 0406 522 397

E luiza.barbosa@eiaustralia.com.au

Suite 6.01, 55 Miller Street Pyrmont, NSW 2009

www.eiaustralia.com.au

Environmental | Geotechnical | Structural | Civil | Hazardous Materials

El Australia is a proud member of the Australian Contaminated Land Consultants Association and the Australian Geomechanics Society.

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Please consider the environment before printing this email.



From: <u>AU.Samplereceipt.Sydney@SGS.com</u> [mailto:AU.Samplereceipt.Sydney@SGS.com]

Sent: Wednesday, 20 October 2021 5:06 PM
To: Andrew Schmidt - EIAustralia; Emmanuel Woelders - EIAustralia; Laboratory Results - EIAustralia
Subject: Report Job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342

Dear Valued Customer,

Please find attached the report for SGS job SE224584, your reference E25342 6-8 Woodburn St. Redfern, order number E25342.

How are we doing? Please take a quick online Survey

If you have any questions or concerns, please don't hesitate to contact your SGS Client Services representative.

Best Regards, SGS Alexandria Customer Service Team SGS Australia Pty Ltd Phone: +61 (0)2 8594 0400

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# SAMPLE RECEIPT ADVICE

- CLIENT DETAILS	S	LABORATORY DETA	AILS	
Contact	Andrew Schmidt	Manager	Huong Crawford	
Client	EIAUSTRALIA	Laboratory	SGS Alexandria Environmental	
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone Facsimile Email	61 2 95160722 (Not specified) andrew schmidt@eiaustralia.com.au	Telephone Facsimile Email	+61 2 8594 0400 +61 2 8594 0499 au environmental sydney@sgs.com	
Project Order Number	E25342 6-8 Woodburn St. Redfern E25342	Samples Received Report Due	Thu 18/11/2021 Fri 19/11/2021	
Samples	6	SGS Reference	SE224584B	

- SUBMISSION DETAILS

This is to confirm that 6 samples were received on Thursday 18/11/2021. Results are expected to be ready by COB Friday 19/11/2021. Please quote SGS reference SE224584B when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Yes SGS Yes 18/11/2021@10:36am Yes 18°C Next Day Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis Yes Ice Bricks 1 Water Email 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 -

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SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

Unit 16 33 Maddox St PO Box 6432 Bourke Rd BC Alexandria NSW 2015 Alexandria NSW 2015 Australia t Australia f

t +61 2 8594 0400 www.sgs.com.au f +61 2 8594 0499



CLIENT DETAILS

# SAMPLE RECEIPT ADVICE

# Client EI AUSTRALIA Project E25342 6-8 Woodburn St. Redfern SUMMARY OF ANALYSIS

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 .

															:													
Sheet 1 of 1					6	Sampl	e Matr	ix						<del></del>		· · · · ·	A	nalys	is			· · · · · · · · · · · · · · · · · · ·			·			Comments
Site: 6-8 Woo	starra St,	Redbern	Pro	ect No: 5342_												ENM) Suite				(CrS)			(it)					HM A Arsenic Cadmium Chromium Copper
Laboratory:	Envirolab S 12 Ashley S CHATSWO P: 02 9910	iervices Street, OD NSW 2067 6200	I			and the second secon	ld fillered		HBTEX/PAHs CB/Asbestos	HBTEX/PAHs	-//BTEX	4			Quantification	Natural Material (	g Suite	oxide		Reducible Sulfur		cation exchange)	lectrical conductiv	Chloride	-		HAH <sup>8</sup>	Lead Mercury Nickel Zinc HM <sup>g</sup> Arsenic Cadmium
Sample ID	Laboratory ID	Container Type	Sampli Date	ng Time	SOIL	WATER	).45 μm fie	OTHER	HM <sup>A</sup> /TRI	HM <sup>A</sup> /TRI	ĤM <sup>A</sup> /TR	втех	vocs	Asbestos	Asbestos (	Excavated	Dewaterin	pH / pH per	sPOCAS	Chromium	PEAS	pH / CEC	pH / EC (e	Sulphate /			TCLP HM	Chromium Lead Mercury Nickel
111-1051	(i)	S,P,2xuc	Blidz	~~~		~	×				X							<u> </u>										
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Container Type: J = solvent washed, ac S = solvent washed a	id rinsed, Tefton se	aled-glass jar-		L <u></u>		1	nvestig	ator: I	attest th	hat the	se sam	iples w samplir	ere col 1g proc	lected i edures	in acco	rdance	with s	landar	d Él fie	ld		R	eport w	ith El \	Naste C	Classific	ation 1	Table .
P = natural HDPE plas	tic bottle Septim				÷	Samp	ler's Na	ne (El)					Receiv	red by (l	Envirola	b):					Samp	ler's C	ommer	nts:			,	
ZLB = Zip-Lock Bag						Pluk	And	en	Sch	k	ÛF	-	Plint	T	<del>4</del> ~~	J					Pla	فعد	cc	:: E	in m	an	el. 1	welling
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togenous on Rem	алтын Нармосния А	C	COC June 2021 FORM	v.5 - Envirolab		Pleas	e-mai	labora	itory res	sults to	: lab@	Deiau	strali	a.con	n.au													



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

# SAMPLE RECEIPT ADVICE

Client Details	
Client	El Australia
Attention	Emmanuel Woelders

Sample Login Details	
Your reference	E25342, Redfern
Envirolab Reference	280382
Date Sample Received	14/10/2021
Date Instructions Received	14/10/2021
Date Results Expected to be Reported	21/10/2021

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

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

Analysis Underway, details on the following page:



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



The ' $\checkmark$ ' indicates the testing you have requested. THIS IS NOT A REPORT OF THE RESULTS.

### **Additional Info**

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Appendix L – Laboratory Analytical Reports



# **ANALYTICAL REPORT**





- CLIENT DETAILS		LABORATORY DE	TAILS	_
Contact Client Address	Emmanuel Woelders EI AUSTRALIA SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Manager Laboratory Address	Huong Crawford SGS Alexandria Environmental Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	61 2 95160722	Telephone	+61 2 8594 0400	
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	emmanuel.woelders@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com	
Project	<b>E25342 6-8 Woodburn St, Redfern NSW</b>	SGS Reference	<b>SE224433 R0</b>	
Order Number	E25342	Date Received	8/10/2021	
Samples	12	Date Reported	15/10/2021	

COMMENTS

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

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES

Akheeqar BENIAMEEN Chemist

m

Huong CRAWFORD Production Manager

Bennet LO Senior Chemist

Kamrul AHSAN Senior Chemist

Dong LIANG Metals/Inorganics Team Leader

kintin

Ly Kim HA Organic Section Head

SGS Australia Pty Ltd ABN 44 000 964 278

Environment, Health and Safety

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

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15/10/2021



## SE224433 R0

### VOC's in Soil [AN433] Tested: 11/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
						00"
			SOIL	SOIL	SUIL	SUIL
			- 5/10/2021	- 6/10/2021	- 7/10/2021	- 5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1



### Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 11/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
			SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	7/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25



### TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 11/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
PARAMETER	UOM	LOR	S/10/2021 SE224433.001	5/10/2021 SE224433.002	6/10/2021 SE224433.003	SE224433.004	SE224433.005
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
			SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	7/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210



### SE224433 R0

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 11/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			001	001	001		00"
			SOIL	- 50IL	50IL	SOIL	SUIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.6
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	1.0
Pyrene	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	0.9
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.4
Chrysene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.4
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	0.4
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.2
Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>0.4</td></lor=0<>	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.4
Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>0.5</td></lor=lor<>	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	0.5
Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>0.5</td></lor=lor>	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	0.5
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	4.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	4.8

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3
			SOIL	SOIL	SOIL
			-	-	-
			5/10/2021	6/10/2021	7/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <lor=0< td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=0<>	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>&lt;0.3</td></lor=lor<>	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>&lt;0.2</td></lor=lor>	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8



### SE224433 R0

### OC Pesticides in Soil [AN420] Tested: 11/10/2021

			BH1M_0.3-0.4 BH2M_0.5-0.6		BH3M_0.4-0.5	TP1_0.3-0.4	TP2_0.3-0.4
			SOIL	SOII	SOII	SOIL	SOIL
			-	-	-	-	-
			5/10/2021	6/10/2021	6/10/2021	5/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.002	SE224433.003	SE224433.004	SE224433.005	SE224433.006
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-



### OC Pesticides in Soil [AN420] Tested: 11/10/2021 (continued)

			TP3_0.3-0.4	TP4_0.2-0.3
			SOIL	SOIL
				-
		1.05	6/10/2021	7/10/2021
PARAMETER	UOM	LOR	SE224433.007	SE224433.008
	mg/kg	0.1	<0.1	<0.1
	mg/kg	0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	0.2
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	0.4
Endrin	mg/kg	0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	-	-



### SE224433 R0

### OP Pesticides in Soil [AN420] Tested: 11/10/2021

			BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4	TP2_0.3-0.4
			00"	00"	00"	0.011	00"
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	6/10/2021	5/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.002	SE224433.003	SE224433.004	SE224433.005	SE224433.006
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

			TP3_0.3-0.4	TP4_0.2-0.3
PARAMETER	UOM	LOR	SOIL - 6/10/2021 SE224433.007	SOIL - 7/10/2021 SE224433.008
Dichlorvos	mg/kg	0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7



### SE224433 R0

### PCBs in Soil [AN420] Tested: 11/10/2021

			BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4	TP2_0.3-0.4
PARAMETER	UOM	LOR	SOIL - 5/10/2021 SE224433.002	SOIL - 6/10/2021 SE224433.003	SOIL - 6/10/2021 SE224433.004	SOIL - 5/10/2021 SE224433.005	SOIL - 5/10/2021 SE224433.006
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

			TP3_0.3-0.4	TP4_0.2-0.3
			SOIL	SOIL
			- 6/10/2021	- 7/10/2021
PARAMETER	UOM	LOR	SE224433.007	SE224433.008
Arochlor 1016	mg/kg	0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1



### SE224433 R0

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 13/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
Arsenic, As	mg/kg	1	19	5	2	5	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	13	10	4.6	6.8	8.3
Copper, Cu	mg/kg	0.5	13	12	19	13	17
Lead, Pb	mg/kg	1	12	15	85	13	150
Nickel, Ni	mg/kg	0.5	<0.5	1.4	1.5	<0.5	1.4
Zinc, Zn	mg/kg	2	5.4	7.5	120	4.3	84

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
			SOIL	SOIL	SOIL	SOIL
			- 5/10/2021	6/10/2021	7/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
Arsenic, As	mg/kg	1	6	1	1	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	4.6	4.9	3.1	6.5
Copper, Cu	mg/kg	0.5	12	0.9	28	8.2
Lead, Pb	mg/kg	1	18	6	16	8
Nickel, Ni	mg/kg	0.5	<0.5	<0.5	1.6	1.6
Zinc, Zn	mg/kg	2	4.8	2.2	32	2.6



### Mercury in Soil [AN312] Tested: 13/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
Mercury	mg/kg	0.05	<0.05	<0.05	0.20	<0.05	0.21

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
			SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	7/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05



### Moisture Content [AN002] Tested: 11/10/2021

			BH1M_0.9-1.0	BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	5/10/2021	6/10/2021	6/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.001	SE224433.002	SE224433.003	SE224433.004	SE224433.005
% Moisture	%w/w	1	23.3	21.3	11.6	18.6	21.2

			TP2_0.3-0.4	TP3_0.3-0.4	TP4_0.2-0.3	QD1
			SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	7/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.006	SE224433.007	SE224433.008	SE224433.009
% Moisture	%w/w	1	28.9	14.8	15.1	17.9



### Fibre Identification in soil [AN602] Tested: 14/10/2021

			BH1M_0.3-0.4	BH2M_0.5-0.6	BH3M_0.4-0.5	TP1_0.3-0.4	TP2_0.3-0.4
			SOIL	SOIL	SOIL	SOIL	SOIL
			5/10/2021	6/10/2021	6/10/2021	5/10/2021	5/10/2021
PARAMETER	UOM	LOR	SE224433.002	SE224433.003	SE224433.004	SE224433.005	SE224433.006
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

			TP3_0.3-0.4	TP4_0.2-0.3	BH3M_0.3-0.4
			SOIL	SOIL	SOIL
			6/10/2021	7/10/2021	7/10/2021
PARAMETER	UOM	LOR	SE224433.007	SE224433.008	SE224433.012
Asbestos Detected	No unit	-	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01



### VOCs in Water [AN433] Tested: 12/10/2021

			QR1	Trip Blank
			WATER	WATER
			- 5/10/2021	- 5/10/2021
PARAMETER	UOM	LOR	SE224433.010	SE224433.011
Benzene	µg/L	0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5



### Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 12/10/2021

			QR1
			WATER - 5/10/2021
PARAMETER	UOM	LOR	SE224433.010
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



## SE224433 R0

### TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 12/10/2021

			QR1
			WATER
			- 5/10/2021
PARAMETER	UOM	LOR	SE224433.010
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



### SE224433 R0

### Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 8/10/2021

			QR1
			WATER
			- 5/10/2021
PARAMETER	UOM	LOR	SE224433.010
Arsenic, As	μg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<1
Nickel, Ni	µg/L	1	<1
Zinc, Zn	μg/L	5	<5



### Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 11/10/2021

			QR1
			WATER
			5/10/2021
PARAMETER	UOM	LOR	SE224433.010
Mercury	mg/L	0.0001	<0.0001



METHOD	
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, 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).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."



AN602	The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-
	<ul> <li>(a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):</li> <li>(b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg; and</li> </ul>
	(c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.

### - FOOTNOTES -

*	NATA accreditation does not cover	-	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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# **ANALYTICAL REPORT**



- CLIENT DETAILS -		LABORATORY DETAILS	
Contact Client Address	Emmanuel Woelders EI AUSTRALIA SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Manager Laboratory Address	Huong Crawford SGS Alexandria Environmental Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 95160722	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	emmanuel.woelders@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com
Project	E25342 6-8 Woodburn St, Redfern NSW	SGS Reference	<b>SE224433 R0</b>
Order Number	E25342	Date Received	08 Oct 2021
Samples	8	Date Reported	15 Oct 2021

COMMENTS

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

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES



Akheeqar BENIAMEEN Chemist



Kamrul AHSAN Senior Chemist

Bennet LO Senior Chemist

kmln

Ly Kim HA Organic Section Head

Un

Huong CRAWFORD Production Manager

S. Ravender.

Ravee SIVASUBRAMANIAM Hygiene Team Leader

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# ANALYTICAL REPORT

RESULTS -						
Fibre Identification in soil     Method     AN602						
Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE224433.002	BH1M_0.3-0.4	Soil	121g Clay	05 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.003	BH2M_0.5-0.6	Soil	81g Clay,Sand	06 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.004	BH3M_0.4-0.5	Soil	158g Clay	06 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.005	TP1_0.3-0.4	Soil	193g Clay,Rocks	05 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.006	TP2_0.3-0.4	Soil	208g Clay	05 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.007	TP3_0.3-0.4	Soil	110g Clay,Sand	06 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE224433.008	TP4_0.2-0.3	Soil	154g Sand,Rocks,Ce ment Mixture,Plastic, Ceramic Fragment	07 Oct 2021	No Asbestos Found at RL of 0.1g/kg Synthetic Mineral Fibres Detected Organic Fibres Detected	<0.01
SE224433.012	BH3M_0.3-0.4	Soil	192g Clay,Rocks	07 Oct 2021	No Asbestos Found at RL of 0.1g/kg	<0.01



# **METHOD SUMMARY**

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	<ul> <li>The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (&lt;0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-</li> <li>(a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):</li> <li>(b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and</li> <li>(c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.</li> </ul>

FOOTNOTES -Amosite Brown Asbestos NA Not Analysed White Asbestos Chrysotile INR Listed. Not Required --Crocidolite Blue Asbestos \* -NATA accreditation does not cover the performance of this service . \*\* Amosite and/or Crocidolite Indicative data, theoretical holding time exceeded. Amphiboles -\*\*\* Indicates that both \* and \*\* apply. -

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

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

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining. Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining. Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

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

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

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## **CERTIFICATE OF ANALYSIS 280093**

Client Details	
Client	El Australia
Attention	Emmanuel Woelders
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details				
Your Reference	E25342, 6-8 Woodburn St Redfern			
Number of Samples	1 soil			
Date samples received	11/10/2021			
Date completed instructions received	11/10/2021			

### **Analysis Details**

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

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

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

Report Details				
Date results requested by	18/10/2021			
Date of Issue	18/10/2021			
NATA Accreditation Number 2901. This document shall not be reproduced except in full.				
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *				

Results Approved By Giovanni Agosti, Group Technical Manager Jeremy Faircloth, Operations Manager, Sydney Josh Williams, LC Supervisor Authorised By

Nancy Zhang, Laboratory Manager



# Client Reference: E25342, 6-8 Woodburn St Redfern

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		280093-1
Your Reference	UNITS	QT1
Date Sampled		05/10/2021
Type of sample		soil
Date extracted	-	13/10/2021
Date analysed	-	14/10/2021
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	<25
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	<25
vTPH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<3
Surrogate aaa-Trifluorotoluene	%	102

svTRH (C10-C40) in Soil		
Our Reference		280093-1
Your Reference	UNITS	QT1
Date Sampled		05/10/2021
Type of sample		soil
Date extracted	-	13/10/2021
Date analysed	-	14/10/2021
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	<50
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	<100
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	<100
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	<50
TRH >C10 - C16 less Naphthalene (F2)	mg/kg	<50
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	<100
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	93

# Client Reference: E25342, 6-8 Woodburn St Redfern

Acid Extractable metals in soil		
Our Reference		280093-1
Your Reference	UNITS	QT1
Date Sampled		05/10/2021
Type of sample		soil
Date prepared	-	13/10/2021
Date analysed	-	14/10/2021
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	8
Copper	mg/kg	10
Lead	mg/kg	12
Mercury	mg/kg	<0.1
Nickel	mg/kg	<1
Zinc	mg/kg	2

# Client Reference: E25342, 6-8 Woodburn St Redfern

Moisture		
Our Reference		280093-1
Your Reference	UNITS	QT1
Date Sampled		05/10/2021
Type of sample		soil
Date prepared	-	13/10/2021
Date analysed	-	14/10/2021
Moisture	%	17
Method ID	Methodology Summary	
------------	---	
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.	
Metals-020	Determination of various metals by ICP-AES.	
Metals-021	Determination of Mercury by Cold Vapour AAS.	
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.	
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.	
	F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.	
	Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).	
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.	
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.	
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.	

QUALITY CONT	Duplicate Spike Reco					covery %				
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date extracted	-			13/10/2021	[NT]		[NT]	[NT]	13/10/2021	
Date analysed	-			14/10/2021	[NT]		[NT]	[NT]	14/10/2021	
TRH C <sub>6</sub> - C <sub>9</sub>	mg/kg	25	Org-023	<25	[NT]		[NT]	[NT]	78	[NT]
TRH C <sub>6</sub> - C <sub>10</sub>	mg/kg	25	Org-023	<25	[NT]		[NT]	[NT]	78	
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]		[NT]	[NT]	84	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]		[NT]	[NT]	78	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]		[NT]	[NT]	78	
m+p-xylene	mg/kg	2	Org-023	<2	[NT]		[NT]	[NT]	76	
o-Xylene	mg/kg	1	Org-023	<1	[NT]		[NT]	[NT]	77	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]		[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	85	[NT]		[NT]	[NT]	90	[NT]

QUALITY CO	NTROL: svT	RH (C10	Duplicate Spike Re				Spike Re	covery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date extracted	-			13/10/2021	[NT]		[NT]	[NT]	13/10/2021	
Date analysed	-			14/10/2021	[NT]		[NT]	[NT]	14/10/2021	
TRH C <sub>10</sub> - C <sub>14</sub>	mg/kg	50	Org-020	<50	[NT]		[NT]	[NT]	95	
TRH C <sub>15</sub> - C <sub>28</sub>	mg/kg	100	Org-020	<100	[NT]		[NT]	[NT]	95	
TRH C <sub>29</sub> - C <sub>36</sub>	mg/kg	100	Org-020	<100	[NT]		[NT]	[NT]	129	
TRH >C <sub>10</sub> -C <sub>16</sub>	mg/kg	50	Org-020	<50	[NT]		[NT]	[NT]	95	
TRH >C <sub>16</sub> -C <sub>34</sub>	mg/kg	100	Org-020	<100	[NT]		[NT]	[NT]	95	
TRH >C <sub>34</sub> -C <sub>40</sub>	mg/kg	100	Org-020	<100	[NT]		[NT]	[NT]	129	
Surrogate o-Terphenyl	%		Org-020	96	[NT]	[NT]	[NT]	[NT]	124	[NT]

QUALITY CONT	Duplicate Spike Recov					covery %				
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date prepared	-			13/10/2021	[NT]		[NT]	[NT]	13/10/2021	
Date analysed	-			14/10/2021	[NT]		[NT]	[NT]	14/10/2021	
Arsenic	mg/kg	4	Metals-020	<4	[NT]		[NT]	[NT]	100	
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]		[NT]	[NT]	95	
Chromium	mg/kg	1	Metals-020	<1	[NT]		[NT]	[NT]	96	
Copper	mg/kg	1	Metals-020	<1	[NT]		[NT]	[NT]	98	
Lead	mg/kg	1	Metals-020	<1	[NT]		[NT]	[NT]	98	
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]		[NT]	[NT]	98	
Nickel	mg/kg	1	Metals-020	<1	[NT]		[NT]	[NT]	100	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]		[NT]	[NT]	103	

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

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

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

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

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

#### Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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



# **ANALYTICAL REPORT**





CLIENT DETAILS		LABORATORY DE	TAILS
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Client	EI AUSTRALIA	Laboratory	SGS Alexandria Environmental
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Project Order Number Samples	<b>E25342 6-8 Woodburn St. Redfern</b> <b>E25342</b> 5	SGS Reference Date Received Date Reported	<b>SE224584 R0</b> 13/10/2021 20/10/2021

COMMENTS

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

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### SE224584 R0

#### VOCs in Water [AN433] Tested: 15/10/2021

			BH2M	GW-QD1	GW-QR1	GW-QTB1	GW-QTS1
			WATER	WATER	WATER	WATER	WATER
			13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
PARAMETER		LOR 0.5	SE224584.001	SE224584.002	SE224584.003	SE224584.004	SE224584.005
	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	[101%]
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	[101 %]
	µg/L		<0.5	<0.0	<0.5	<0.5	[33 /8]
	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	[100%]
Total Yulanes	ug/L	1.5	<1.5	-0.5	<1.5	-0.5	[100 /0]
	µg/L	3	<3	<3	<3	<3	
Nanhthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	[98%]
Dichlorodifluoromethane (CEC-12)	ug/l	5	<5	-	-		-
Chloromethane	ua/L	5	<5	_	-	_	-
Vinvl chloride (Chloroethene)	ua/L	0.3	<0.3	_			-
Bromomethane	ug/l	10	<10	_	_		_
Chloroethane	ua/L	5	<5	_			-
Trichlorofluoromethane	ug/l	1	<1	_			_
Acetone (2-propanone)	ua/L	10	<10	-	-	-	-
lodomethane	ua/L	5	<5	-	-	_	-
1.1-dichloroethene	ua/L	0.5	<0.5	-	-	-	-
Acrylonitrile	ua/L	0.5	<0.5	-	-	_	-
Dichloromethane (Methylene chloride)	ua/L	5	<5	-	-	-	-
Allyl chloride	ua/L	2	<2	-	-	_	-
Carbon disulfide	ua/L	2	<2	-	-	-	-
trans-1.2-dichloroethene	ua/L	0.5	<0.5	-	-	-	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	-	-	-	-
1,1-dichloroethane	µg/L	0.5	<0.5	-	-	-	-
Vinyl acetate	µg/L	10	<10	-	_	_	_
MEK (2-butanone)	μg/L	10	<10	-	-	-	-
cis-1,2-dichloroethene	µg/L	0.5	<0.5	-	_	_	_
Bromochloromethane	μg/L	0.5	<0.5	-	-	-	-
Chloroform (THM)	µg/L	0.5	<0.5	-	-	-	-
2,2-dichloropropane	µg/L	0.5	<0.5	-	-	-	-
1,2-dichloroethane	µg/L	0.5	<0.5	-	-	-	-
1,1,1-trichloroethane	µg/L	0.5	<0.5	-	-	-	-
1,1-dichloropropene	µg/L	0.5	<0.5	-	-	-	-
Carbon tetrachloride	µg/L	0.5	<0.5	-	-	-	-
Dibromomethane	µg/L	0.5	<0.5	-	-	-	-
1,2-dichloropropane	µg/L	0.5	<0.5	-	-	-	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	-	-	-	-
2-nitropropane	µg/L	100	<100	-	-	-	-
Bromodichloromethane (THM)	µg/L	0.5	<0.5	-	-	-	-
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	-	-	-	-
cis-1,3-dichloropropene	µg/L	0.5	<0.5	-	-	-	-
trans-1,3-dichloropropene	µg/L	0.5	<0.5	-	-	-	-
1,1,2-trichloroethane	µg/L	0.5	<0.5	-	-	-	-
1,3-dichloropropane	µg/L	0.5	<0.5	-	-	-	-
Dibromochloromethane (THM)	µg/L	0.5	<0.5	-	-	-	-
2-hexanone (MBK)	µg/L	5	<5	-	-	-	-
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	-	-	-	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	-	-	-	-
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	-	-	-	-
Chlorobenzene	µg/L	0.5	<0.5	-	-	-	-
Bromoform (THM)	µg/L	0.5	<0.5	-	-	-	-
cis-1,4-dichloro-2-butene	µg/L	1	<1	-	-	-	-
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	-	-	-	-
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	-	-	-	-
1,2,3-trichloropropane	µg/L	0.5	<0.5	-	-	-	-
trans-1,4-dichloro-2-butene	µg/L	1	<1	-	-	-	-



### SE224584 R0

#### VOCs in Water [AN433] Tested: 15/10/2021 (continued)

			BH2M	GW-QD1	GW-QR1	GW-QTB1	GW-QTS1
			WATER -	WATER	WATER -	WATER	WATER -
PARAMETER	UOM	LOR	13/10/2021 SE224584.001	13/10/2021 SE224584.002	13/10/2021 SE224584.003	13/10/2021 SE224584.004	13/10/2021 SE224584.005
Isopropylbenzene (Cumene)	μg/L	0.5	<0.5	-	-	-	-
Bromobenzene	µg/L	0.5	<0.5	-	-	-	-
n-propylbenzene	µg/L	0.5	<0.5	-	-	-	-
2-chlorotoluene	µg/L	0.5	<0.5	-	-	-	-
4-chlorotoluene	µg/L	0.5	<0.5	-	-	-	-
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	-	-	-	-
tert-butylbenzene	µg/L	0.5	<0.5	-	-	-	-
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	-	-	-	-
sec-butylbenzene	µg/L	0.5	<0.5	-	-	-	-
1,3-dichlorobenzene	µg/L	0.5	<0.5	-	-	-	-
1,4-dichlorobenzene	µg/L	0.3	<0.3	-	-	-	-
p-isopropyltoluene	µg/L	0.5	<0.5	-	-	-	-
1,2-dichlorobenzene	µg/L	0.5	<0.5	-	-	-	-
n-butylbenzene	µg/L	0.5	<0.5	-	-	-	-
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	-	-	-	-
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	-	-	-	-
Hexachlorobutadiene	µg/L	0.5	<0.5	-	-	-	-
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	-	-	-	-
Total VOC	µg/L	10	<10	-	-	-	-



#### Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 15/10/2021

			BH2M	GW-QD1	GW-QR1
			WATER	WATER	WATER
			13/10/2021	13/10/2021	13/10/2021
PARAMETER	UOM	LOR	SE224584.001	SE224584.002	SE224584.003
TRH C6-C9	µg/L	40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50



#### TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 14/10/2021

			BH2M	GW-QD1	GW-QR1
			WATER	WATER	WATER
			13/10/2021	13/10/2021	13/10/2021
PARAMETER	UOM	LOR	SE224584.001	SE224584.002	SE224584.003
TRH C10-C14	µg/L	50	<50	<50	<50
TRH C15-C28	µg/L	200	650	320	<200
TRH C29-C36	µg/L	200	220	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	820	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500
TRH C10-C40	µg/L	320	870	320	<320



## SE224584 R0

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 14/10/2021

			BH2M
			WATER
			13/10/2021
PARAMETER	UOM	LOR	SE224584.001
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(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 Phenolics in Water [AN289] Tested: 18/10/2021

		BH2M
		WATER
		13/10/2021
PARAMETER UOM	LOR	SE224584.001
Total Phenols mg/L	0.01	<0.01



#### Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 14/10/2021

			BH2M	GW-QD1	GW-QR1
			WATER	WATER	WATER
			13/10/2021	13/10/2021	13/10/2021
PARAMETER	UOM	LOR	SE224584.001	SE224584.002	SE224584.003
Arsenic, As	µg/L	1	1	1	<1
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	<1	<1
Copper, Cu	µg/L	1	1	<1	2
Lead, Pb	µg/L	1	<1	<1	<1
Nickel, Ni	µg/L	1	7	7	<1
Zinc, Zn	µg/L	5	11	12	<5



#### Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 14/10/2021

			BH2M	GW-QD1	GW-QR1
			WATER	WATER	WATER
			13/10/2021	13/10/2021	13/10/2021
PARAMETER	UOM	LOR	SE224584.001	SE224584.002	SE224584.003
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001



METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN289	Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
AN403	Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
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).
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.



#### FOOTNOTES -

*	NATA accreditation does not cover
	the performance of this service.
**	Indicative data, theoretical holding
	time exceeded.

\*\*\* Indicates that both \* and \*\* apply. NVL IS I NR

Not analysed. Not validated. Insufficient sample for analysis. Sample listed, but not received. UOM Unit of Measure. LOR Limit of Reporting. Raised/lowered Limit of î↓ Reporting.

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

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

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

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

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

Note that in terms of units of radioactivity:

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

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

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

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# **ANALYTICAL REPORT**





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Project Order Number Samples	<b>E25342 6-8 Woodburn St. Redfern-Add</b> <b>E25342</b> 5	SGS Reference Date Received Date Reported	<b>SE224584A R0</b> 17/11/2021 18/11/2021

COMMENTS

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

SIGNATORIES -

kmln

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#### TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water [AN403] Tested: 18/11/2021

			BH2M
			WATER - 13/10/2021
PARAMETER	UOM	LOR	SE224584A.001
TRH C10-C14-Silica	µg/L	50	<50
TRH C15-C28-Silica	µg/L	200	<200
TRH C29-C36-Silica	µg/L	200	<200
TRH C37-C40-Silica	µg/L	200	<200
TRH >C10-C16-Silica	µg/L	60	<60
TRH >C16-C34-Silica	µg/L	500	<500
TRH >C34-C40-Silica	µg/L	500	<500
TRH Sum C10-C36-Silica	µg/L	450	<450
TRH Sum C10-C40-Silica	µg/L	650	<650



METHOD	METHODOLOGY SUMMARY
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.
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 (TRHisilica) 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.

#### 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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# **ANALYTICAL REPORT**





CLIENT DETAILS		LABORATORY DE	TAILS	
Contact Client Address	Andrew Schmidt EI AUSTRALIA SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Manager Laboratory Address	Huong Crawford SGS Alexandria Environmental Unit 16, 33 Maddox St Alexandria NSW 2015	
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Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com	
Project	E25342 6-8 Woodburn St. Redfern	SGS Reference	<b>SE224584B R0</b>	
Order Number	E25342	Date Received	18/11/2021	
Samples	6	Date Reported	18/11/2021	

COMMENTS

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

SIGNATORIES

Dong LIANG Metals/Inorganics Team Leader

SGS Australia Pty Ltd ABN 44 000 964 278

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#### Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 18/11/2021

			GW-QRB1
			WATER
			13/10/2021
PARAMETER	UOM	LOR	SE224584B.006
Copper, Cu	µg/L	1	<1



METHOD	- METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

#### FOOTNOTES -

*	NATA accreditation does not cover	-	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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### **CERTIFICATE OF ANALYSIS 280382**

Client Details	
Client	El Australia
Attention	Emmanuel Woelders
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details				
Your Reference	E25342, Redfern			
Number of Samples	1 Water			
Date samples received	14/10/2021			
Date completed instructions received	14/10/2021			

#### **Analysis Details**

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

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

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

Report Details					
Date results requested by	21/10/2021				
Date of Issue	21/10/2021				
NATA Accreditation Number 2901. This document shall not be reproduced except in full.					
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *					

Results Approved By Dragana Tomas, Senior Chemist Greta Petzold, Senior Report Coordinator Authorised By

Nancy Zhang, Laboratory Manager

Envirolab Reference: 280382 Revision No: R00



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vTRH(C6-C10)/BTEXN in Water				
Our Reference		280382-1		
Your Reference	UNITS	GW-QT1		
Date Sampled		13/10/2021		
Type of sample		Water		
Date extracted	-	15/10/2021		
Date analysed	-	18/10/2021		
TRH C <sub>6</sub> - C <sub>9</sub>	µg/L	<10		
TRH C6 - C10	µg/L	<10		
TRH C <sub>6</sub> - C <sub>10</sub> less BTEX (F1)	µg/L	<10		
Benzene	µg/L	<1		
Toluene	µg/L	<1		
Ethylbenzene	µg/L	<1		
m+p-xylene	µg/L	<2		
o-xylene	µg/L	<1		
Naphthalene	µg/L	<1		
Surrogate Dibromofluoromethane	%	98		
Surrogate toluene-d8	%	98		
Surrogate 4-BFB	%	102		

svTRH (C10-C40) in Water				
Our Reference		280382-1		
Your Reference	UNITS	GW-QT1		
Date Sampled		13/10/2021		
Type of sample		Water		
Date extracted	-	15/10/2021		
Date analysed	-	15/10/2021		
TRH C <sub>10</sub> - C <sub>14</sub>	μg/L	<50		
TRH C <sub>15</sub> - C <sub>28</sub>	µg/L	<100		
TRH C <sub>29</sub> - C <sub>36</sub>	μg/L	<100		
Total +ve TRH (C10-C36)	µg/L	<50		
TRH >C10 - C16	µg/L	<50		
TRH >C <sub>10</sub> - C <sub>16</sub> less Naphthalene (F2)	µg/L	<50		
TRH >C <sub>16</sub> - C <sub>34</sub>	μg/L	<100		
TRH >C <sub>34</sub> - C <sub>40</sub>	µg/L	<100		
Total +ve TRH (>C10-C40)	µg/L	<50		
Surrogate o-Terphenyl	%	102		

HM in water - dissolved		
Our Reference		280382-1
Your Reference	UNITS	GW-QT1
Date Sampled		13/10/2021
Type of sample		Water
Date prepared	-	15/10/2021
Date analysed	-	18/10/2021
Arsenic-Dissolved	µg/L	1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	μg/L	<1
Lead-Dissolved	μg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	μg/L	6
Zinc-Dissolved	μg/L	10

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTR	ROL: vTRH(0	C6-C10)/E	BTEXN in Water		Duplicate Spike Re				covery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			15/10/2021	[NT]		[NT]	[NT]	15/10/2021	
Date analysed	-			18/10/2021	[NT]		[NT]	[NT]	18/10/2021	
TRH C <sub>6</sub> - C <sub>9</sub>	µg/L	10	Org-023	<10	[NT]		[NT]	[NT]	114	
TRH C <sub>6</sub> - C <sub>10</sub>	µg/L	10	Org-023	<10	[NT]		[NT]	[NT]	114	
Benzene	µg/L	1	Org-023	<1	[NT]		[NT]	[NT]	109	
Toluene	µg/L	1	Org-023	<1	[NT]		[NT]	[NT]	108	
Ethylbenzene	µg/L	1	Org-023	<1	[NT]		[NT]	[NT]	117	
m+p-xylene	µg/L	2	Org-023	<2	[NT]		[NT]	[NT]	118	
o-xylene	µg/L	1	Org-023	<1	[NT]		[NT]	[NT]	117	
Naphthalene	µg/L	1	Org-023	<1	[NT]		[NT]	[NT]	[NT]	
Surrogate Dibromofluoromethane	%		Org-023	97	[NT]		[NT]	[NT]	101	
Surrogate toluene-d8	%		Org-023	98	[NT]		[NT]	[NT]	100	
Surrogate 4-BFB	%		Org-023	104	[NT]		[NT]	[NT]	99	

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate Spike F			Spike Re	covery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date extracted	-			15/10/2021	[NT]		[NT]	[NT]	15/10/2021	
Date analysed	-			15/10/2021	[NT]		[NT]	[NT]	15/10/2021	
TRH C <sub>10</sub> - C <sub>14</sub>	µg/L	50	Org-020	<50	[NT]		[NT]	[NT]	119	
TRH C <sub>15</sub> - C <sub>28</sub>	µg/L	100	Org-020	<100	[NT]		[NT]	[NT]	112	
TRH C <sub>29</sub> - C <sub>36</sub>	µg/L	100	Org-020	<100	[NT]		[NT]	[NT]	98	
TRH >C <sub>10</sub> - C <sub>16</sub>	µg/L	50	Org-020	<50	[NT]		[NT]	[NT]	119	
TRH >C <sub>16</sub> - C <sub>34</sub>	µg/L	100	Org-020	<100	[NT]		[NT]	[NT]	112	
TRH >C <sub>34</sub> - C <sub>40</sub>	µg/L	100	Org-020	<100	[NT]		[NT]	[NT]	98	
Surrogate o-Terphenyl	%		Org-020	107	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: HM in water - dissolved						Du	plicate		Spike Re	covery %
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			15/10/2021	[NT]		[NT]	[NT]	15/10/2021	
Date analysed	-			18/10/2021	[NT]		[NT]	[NT]	18/10/2021	
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]		[NT]	[NT]	98	
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]		[NT]	[NT]	96	
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]		[NT]	[NT]	99	
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]		[NT]	[NT]	97	
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]		[NT]	[NT]	98	
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	[NT]		[NT]	[NT]	98	
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]		[NT]	[NT]	99	
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]

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

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

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

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

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

#### Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

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

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

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

# Appendix M– Laboratory QA/QC Policies and DQOs



# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Emmanuel Woelders	Manager	Huong Crawford
Client	El AUSTRALIA	Laboratory	SGS Alexandria Environmental
Address	SUITE 6.01	Address	Unit 16, 33 Maddox St
	55 MILLER STREET PYRMONT NSW 2009		Alexandria NSW 2015
Telephone	61 2 95160722	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	emmanuel.woelders@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com
Project	E25342 6-8 Woodburn St, Redfern NSW	SGS Reference	<b>SE224433 R0</b>
Order Number	E25342	Date Received	08 Oct 2021
Samples	12	Date Reported	15 Oct 2021

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:

Surrogate	VOC's in Soil	1 item
	Volatile Petroleum Hydrocarbons in Soil	1 item
Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	TRH (Total Recoverable Hydrocarbons) in Soil	1 item
Matrix Spike	TRH (Total Recoverable Hydrocarbons) in Soil	3 items
	VOC's in Soil	1 item

Samples clearly labelled	Yes	Complete documentation received	Yes	
Sample container provider	SGS	Sample cooling method	Ice Bricks	
Samples received in correct containers	Yes	Sample counts by matrix	10 Soil, 2 Water	
Date documentation received	8/10/2021	Type of documentation received	COC	
Samples received in good order	Yes	Samples received without headspace	Yes	
Sample temperature upon receipt	15°C	Sufficient sample for analysis	Yes	
Turnaround time requested	Standard			

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Australia

Australia

15/10/2021



## 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

Fibre Identification in soil							Method: I	/IE-(AU)-[ENV]AN602
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.3-0.4	SE224433.002	LB234769	05 Oct 2021	08 Oct 2021	05 Oct 2022	14 Oct 2021	05 Oct 2022	15 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234769	06 Oct 2021	08 Oct 2021	06 Oct 2022	14 Oct 2021	06 Oct 2022	15 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234769	06 Oct 2021	08 Oct 2021	06 Oct 2022	14 Oct 2021	06 Oct 2022	15 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234769	05 Oct 2021	08 Oct 2021	05 Oct 2022	14 Oct 2021	05 Oct 2022	15 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234769	05 Oct 2021	08 Oct 2021	05 Oct 2022	14 Oct 2021	05 Oct 2022	15 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234769	06 Oct 2021	08 Oct 2021	06 Oct 2022	14 Oct 2021	06 Oct 2022	15 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234769	07 Oct 2021	08 Oct 2021	07 Oct 2022	14 Oct 2021	07 Oct 2022	15 Oct 2021
BH3M_0.3-0.4	SE224433.012	LB234769	07 Oct 2021	08 Oct 2021	07 Oct 2022	14 Oct 2021	07 Oct 2022	15 Oct 2021
Mercury (dissolved) in Water							Method: ME_(ALI)_IEN/	AN311/Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE224433.010	LB234430	05 Oct 2021	08 Oct 2021	02 Nov 2021	11 Oct 2021	02 Nov 2021	11 Oct 2021

Mercury in Soil							Method: M	/IE-(AU)-[ENV]AN312
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234702	05 Oct 2021	08 Oct 2021	02 Nov 2021	13 Oct 2021	02 Nov 2021	15 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234702	05 Oct 2021	08 Oct 2021	02 Nov 2021	13 Oct 2021	02 Nov 2021	15 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234702	06 Oct 2021	08 Oct 2021	03 Nov 2021	13 Oct 2021	03 Nov 2021	15 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234702	06 Oct 2021	08 Oct 2021	03 Nov 2021	13 Oct 2021	03 Nov 2021	15 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234702	05 Oct 2021	08 Oct 2021	02 Nov 2021	13 Oct 2021	02 Nov 2021	15 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234702	05 Oct 2021	08 Oct 2021	02 Nov 2021	13 Oct 2021	02 Nov 2021	15 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234702	06 Oct 2021	08 Oct 2021	03 Nov 2021	13 Oct 2021	03 Nov 2021	15 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234702	07 Oct 2021	08 Oct 2021	04 Nov 2021	13 Oct 2021	04 Nov 2021	15 Oct 2021
QD1	SE224433.009	LB234702	05 Oct 2021	08 Oct 2021	02 Nov 2021	13 Oct 2021	02 Nov 2021	15 Oct 2021

Moisture Content							Method: I	VE-(AU)-[ENV]AN002
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234513	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234513	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234513	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234513	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234513	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234513	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234513	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021
TP4 0.2-0.3	SE224433.008	LB234513	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	16 Oct 2021	13 Oct 2021

05 Oct 2021

OC Pesticides in Soil							Method: M	ME-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234487	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
QD1	SE224433.009	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021

08 Oct 2021

19 Oct 2021

11 Oct 2021

16 Oct 2021

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

13 Oct 2021

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234487	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
QD1	SE224433.009	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021

**OP Pesticides in Soil** 

Mor

Sa

QD1

SE224433.009

LB234513


### HOLDING TIME SUMMARY

Method: ME\_(ALI)\_JEN/JAN420

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

#### PAH (Polynuclear Aromatic Hydrocarbons) in Soil

	· · · · ·							
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234487	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
QD1	SE224433.009	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
PCBs in Soil							Method: M	IE-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234487	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234487	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
QD1	SE224433.009	LB234487	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	20 Nov 2021	14 Oct 2021
Total Recoverable Elements	in Soil/Waste Solids/Mat	terials by ICPOES					Method: ME-(AU)	-[ENV]AN040/AN320
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234699	05 Oct 2021	08 Oct 2021	03 Apr 2022	13 Oct 2021	03 Apr 2022	14 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234699	05 Oct 2021	08 Oct 2021	03 Apr 2022	13 Oct 2021	03 Apr 2022	14 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234699	06 Oct 2021	08 Oct 2021	04 Apr 2022	13 Oct 2021	04 Apr 2022	14 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234699	06 Oct 2021	08 Oct 2021	04 Apr 2022	13 Oct 2021	04 Apr 2022	14 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234699	05 Oct 2021	08 Oct 2021	03 Apr 2022	13 Oct 2021	03 Apr 2022	14 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234699	05 Oct 2021	08 Oct 2021	03 Apr 2022	13 Oct 2021	03 Apr 2022	14 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234699	06 Oct 2021	08 Oct 2021	04 Apr 2022	13 Oct 2021	04 Apr 2022	14 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234699	07 Oct 2021	08 Oct 2021	05 Apr 2022	13 Oct 2021	05 Apr 2022	14 Oct 2021
QD1	SE224433.009	LB234699	05 Oct 2021	08 Oct 2021	03 Apr 2022	13 Oct 2021	03 Apr 2022	14 Oct 2021
Trace Metals (Dissolved) in V	Vater by ICPMS						Method: M	/IE-(AU)-[ENV]AN318
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE224433.010	LB234377	05 Oct 2021	08 Oct 2021	03 Apr 2022	08 Oct 2021	03 Apr 2022	12 Oct 2021

#### TRH (Total Recoverable Hydrocarbons) in Soll Method: ME-(AU)-[ENV]AN403 Sample Name Sample No. Sampled Analysis Due Analysed QC Ref Received Extraction Due Extracted BH1M 0.9-1.0 SE224433.001 LB234487 05 Oct 2021 08 Oct 2021 19 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 BH1M\_0.3-0.4 SE224433.002 LB234487 05 Oct 2021 08 Oct 2021 19 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 BH2M 0.5-0.6 SE224433.003 I B234487 06 Oct 2021 08 Oct 2021 20 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 BH3M\_0.4-0.5 SE224433.004 LB234487 06 Oct 2021 08 Oct 2021 20 Oct 2021 20 Nov 2021 13 Oct 2021 11 Oct 2021 TP1\_0.3-0.4 SE224433.005 LB234487 08 Oct 2021 20 Nov 2021 05 Oct 2021 19 Oct 2021 11 Oct 2021 13 Oct 2021 TP2\_0.3-0.4 SE224433.006 LB234487 05 Oct 2021 08 Oct 2021 19 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 TP3\_0.3-0.4 SE224433.007 LB234487 06 Oct 2021 08 Oct 2021 20 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 TP4 0.2-0.3 SE224433.008 LB234487 07 Oct 2021 08 Oct 2021 21 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 QD1 SE224433.009 LB234487 05 Oct 2021 08 Oct 2021 19 Oct 2021 11 Oct 2021 20 Nov 2021 13 Oct 2021 TRH (Total Recoverable Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN403 Analysis Due Sample Name Sample No. QC Ref Sampled Received Extraction Due Extracted Analysed QR1 SE224433.010 LB234537 05 Oct 2021 08 Oct 2021 12 Oct 2021 12 Oct 2021 21 Nov 2021 14 Oct 2021

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021

VOC's in Soil



### 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

VOC's in Soil (continued)							Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP2_0.3-0.4	SE224433.006	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234495	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	21 Oct 2021	13 Oct 2021
QD1	SE224433.009	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
VOCs in Water							Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE224433.010	LB234611	05 Oct 2021	08 Oct 2021	19 Oct 2021	12 Oct 2021	19 Oct 2021	13 Oct 2021
Trip Blank	SE224433.011	LB234611	05 Oct 2021	08 Oct 2021	19 Oct 2021	12 Oct 2021	19 Oct 2021	13 Oct 2021
Volatile Petroleum Hydrod	arbons in Soil						Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_0.9-1.0	SE224433.001	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
BH1M_0.3-0.4	SE224433.002	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
BH2M_0.5-0.6	SE224433.003	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
BH3M_0.4-0.5	SE224433.004	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
TP1_0.3-0.4	SE224433.005	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
TP2_0.3-0.4	SE224433.006	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
TP3_0.3-0.4	SE224433.007	LB234495	06 Oct 2021	08 Oct 2021	20 Oct 2021	11 Oct 2021	20 Oct 2021	13 Oct 2021
TP4_0.2-0.3	SE224433.008	LB234495	07 Oct 2021	08 Oct 2021	21 Oct 2021	11 Oct 2021	21 Oct 2021	13 Oct 2021
QD1	SE224433.009	LB234495	05 Oct 2021	08 Oct 2021	19 Oct 2021	11 Oct 2021	19 Oct 2021	13 Oct 2021
Volatile Petroleum Hydrod	arbons in Water						Method: I	ME-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR1	SE224433.010	LB234611	05 Oct 2021	08 Oct 2021	19 Oct 2021	12 Oct 2021	19 Oct 2021	13 Oct 2021
Trip Blank	SE224433.011	LB234611	05 Oct 2021	08 Oct 2021	19 Oct 2021	12 Oct 2021	19 Oct 2021	13 Oct 2021



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil				Method: M	E-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Recoverv %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M 0.3-0.4	SE224433.002	%	60 - 130%	111
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	113
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	117
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	113
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	113
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	113
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	112
OP Pesticides in Soil				Method: M	E-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	86
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	88
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	88
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	84
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	88
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	88
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	84
d14-p-terphenyl (Surrogate)	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	96
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	90
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	92
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	90
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	92
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	92
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	86
PAH (Polynuclear Aromatic Hydrocarbons) in Soil				Method: M	E-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1M_0.9-1.0	SE224433.001	%	70 - 130%	88
	BH1M_0.3-0.4	SE224433.002	%	70 - 130%	86
	BH2M_0.5-0.6	SE224433.003	%	70 - 130%	88
	BH3M_0.4-0.5	SE224433.004	%	70 - 130%	88
	TP1_0.3-0.4	SE224433.005	%	70 - 130%	84
	TP2_0.3-0.4	SE224433.006	%	70 - 130%	88
	TP3_0.3-0.4	SE224433.007	%	70 - 130%	88
	TP4_0.2-0.3	SE224433.008	%	70 - 130%	84
d14-p-terphenyl (Surrogate)	BH1M_0.9-1.0	SE224433.001	%	70 - 130%	96
	BH1M_0.3-0.4	SE224433.002	%	70 - 130%	96
	BH2M_0.5-0.6	SE224433.003	%	70 - 130%	90
	BH3M_0.4-0.5	SE224433.004	%	70 - 130%	92
	TP1_0.3-0.4	SE224433.005	%	70 - 130%	90
	TP2_0.3-0.4	SE224433.006	%	70 - 130%	92
	TP3_0.3-0.4	SE224433.007	%	70 - 130%	92
	TP4_0.2-0.3	SE224433.008	%	70 - 130%	86
d5-nitrobenzene (Surrogate)	_BH1M_0.9-1.0	SE224433.001	%	70 - 130%	82
	BH1M_0.3-0.4	SE224433.002	%	70 - 130%	80
	BH2M_0.5-0.6	SE224433.003	%	70 - 130%	82
	BH3M_0.4-0.5	SE224433.004	%	70 - 130%	82
	TP1_0.3-0.4	SE224433.005	%	70 - 130%	78
	TP2_0.3-0.4	SE224433.006	%	70 - 130%	82
	TP3_0.3-0.4	SE224433.007	%	70 - 130%	82
	TP4_0.2-0.3	SE224433.008	%	70 - 130%	78
PCBs in Soil				Method: M	E-(AU)-[ENV]AN420
Parameter	Sample Name	Sample Number	Units	Criteria	Reco <u>very %</u>
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	111
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	113
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	117
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	113
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	113
	TP3 0.3-0.4	SE224433.007	%	60 - 130%	113

TP4\_0.2-0.3

SE224433.008

%

60 - 130%

112



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.

				Method: MI	=-(AU)-[ENV]AN43
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1M_0.9-1.0	SE224433.001	%	60 - 130%	63
	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	62
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	63
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	62
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	62
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	80
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	60 ①
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	63
	QD1	SE224433.009	%	60 - 130%	68
d4-1,2-dichloroethane (Surrogate)	BH1M_0.9-1.0	SE224433.001	%	60 - 130%	86
	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	87
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	88
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	86
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	87
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	80
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	85
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	88
	QD1	SE224433.009	%	60 - 130%	91
d8-toluene (Surrogate)	BH1M_0.9-1.0	SE224433.001	%	60 - 130%	81
	BH1M_0.3-0.4	SE224433.002	%	60 - 130%	82
	BH2M_0.5-0.6	SE224433.003	%	60 - 130%	82
	BH3M_0.4-0.5	SE224433.004	%	60 - 130%	81
	TP1_0.3-0.4	SE224433.005	%	60 - 130%	80
	TP2_0.3-0.4	SE224433.006	%	60 - 130%	73
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	79
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	81
	QD1	SE224433.009	%	60 - 130%	71
VOCs in Water				Method: MI	E-(AU)-[ENV]AN43
Parameter	Sample Name	Sample Number	Units	Criteria	Recoverv %
Bromofluorobenzene (Surrogate)	QR1	SE224433.010	%	40 - 130%	96
	Trip Blank	SE224433.011	%	40 - 130%	96
d4-12 dichloroethane (Surrogate)					
d4-1,2-dichloroethane (Surrogate)	QR1	SE224433.010	%	40 - 130%	106
d4-1,2-dichloroethane (Surrogate)	QR1 Trip Blank	SE224433.010 SE224433.011	%	40 - 130% 40 - 130%	106
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	QR1 Trip Blank QR1	SE224433.010 SE224433.011 SE224433.010	%	40 - 130% 40 - 130% 40 - 130%	106 104 91
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	QR1 Trip Blank QR1 Trip Blank	SE224433.010 SE224433.011 SE224433.010 SE224433.011	% % %	40 - 130% 40 - 130% 40 - 130% 40 - 130%	106 104 91 92
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	QR1 Trip Blank QR1 Trip Blank	SE224433.010 SE224433.011 SE224433.010 SE224433.011	% % %	40 - 130% 40 - 130% 40 - 130% 40 - 130%	106 104 91 92
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Personator	QR1 Trip Blank QR1 Trip Blank	SE224433.010 SE224433.011 SE224433.010 SE224433.011	% % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI	106 104 91 92 <b>E-(AU)-[ENV]AN43</b>
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Record(uscharace) (Surrogate)	QR1 Trip Blank QR1 Trip Blank Sample Name	SE224433.010 SE224433.011 SE224433.010 SE224433.011 Sample Number SE224423.011	% % % Units	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: Mi</b> Criteria	106 104 91 92 E-(AU)-[ENV]AN43 Recovery %
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1 Trip Blank QR1 Trip Blank Sample Name BH1M_0.9-1.0 BH1M_0.9-1.0	SE224433.010 SE224433.011 SE224433.010 SE224433.011 Sample Number SE224433.001 SE224433.001	% % % Units %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: Mi</b> <b>Criteria</b> 60 - 130%	106 104 91 92 E-(AU)-[ENV]AN433 Recovery % 63
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soll Parameter Bromofluorobenzene (Surrogate)	QR1 Trip Blank QR1 Trip Blank Sample Name BH1M_0.9-1.0 BH1M_0.3-0.4 BH1M_0.3-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.001 SE224433.002	% % % % Units % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: Mi</b> <b>Criteria</b> 60 - 130% 60 - 130%	106 104 91 92 E-(AU)-[ENV]AN43 Recovery % 63 62 62
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BU2M_0.4.05	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003	% % % % Units % % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: Mi</b> <b>Criteria</b> 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 E-(AU)-[ENV]AN43 Recovery % 63 62 63 62
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1 Trip Blank QR1 Trip Blank Sample Name BH1M_0.9-1.0 BH1M_0.3-0.4 BH2M_0.5-0.6 BH3M_0.4-0.5 TRI 0.2.04	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.004 SE224433.004	% % % % Units % % % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> <b>Criteria</b> 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 63 62
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.2-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.003 SE224433.003 SE224433.005	% % % % Units % % % % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 63 62 62 62 80
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.007	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 62 62 62 80
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.2	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.007 SE224433.007	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 63 62 62 62 80 60 0
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           OD1	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.006 SE224433.008 SE224433.008	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 62 62 62 80 60 60 63 63
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons In Soil Parameter Bromofluorobenzene (Surrogate) d4-1 2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.004 SE224433.006 SE224433.007 SE224433.007 SE224433.009 SE224433.009 SE224433.001	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: Mi</b> <b>Criteria</b> 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 62 80 60 60 63 68 88 88
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate) d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.006 SE224433.007 SE224433.009 SE224433.009 SE224433.001 SE224433.002	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 62 63 62 80 63 63 68 86 88 88 88
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter  Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.0-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.007 SE224433.007 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.002	% % % % % % % % % % % % % % %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 60 63 68 86 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter  Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.4-0.5	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.003 SE224433.004 SE224433.006 SE224433.006 SE224433.006 SE224433.007 SE224433.008 SE224433.009 SE224433.001 SE224433.001 SE224433.002 SE224433.002 SE224433.002	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 10 - 10 - 10 - 10	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 60 63 68 86 88 86 87 88 88
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter  Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.006 SE224433.007 SE224433.007 SE224433.007 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.003 SE224433.004 SE224433.004	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 10 - 10 - 10 - 10	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 60 63 63 68 86 88 88 88 88 88 88 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter  Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.007 SE224433.007 SE224433.007 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.003 SE224433.003 SE224433.004 SE224433.005 SE224433.005	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 100% 60 - 100%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 80 60 60 63 68 86 87 88 88 88 88 88 87
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter  Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH3M_0.4-0.5           TP1_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.005 SE224433.005 SE224433.005 SE224433.005	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 120%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 63 62 63 68 80 60 0 63 68 80 68 88 88 88 88 88 88 88 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate) d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.005 SE224433.005 SE224433.005 SE224433.005 SE224433.005 SE224433.006 SE224433.007	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 62 63 63 68 80 60 0 63 68 80 68 80 68 80 68 87 88 88 88 88 88 87 88 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate) d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1	SE224433.010 SE224433.011 SE224433.010 SE224433.011 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.006 SE224433.007 SE224433.009 SE224433.009 SE224433.009 SE224433.001 SE224433.002 SE224433.002 SE224433.003 SE224433.004 SE224433.005 SE224433.006 SE224433.006 SE224433.006 SE224433.006 SE224433.007 SE224433.006 SE224433.007 SE224433.006 SE224433.007 SE224433.007 SE224433.006 SE224433.007 SE24433.007 SE224433.007 SE224433.007 SE24433.007 SE224433.007 SE24433.0	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 100% 60 - 100% 60 - 100%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 63 63 63 63 68 80 63 63 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 88 86 87 88 88 88 88 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons in Soil Parameter Bromofluorobenzene (Surrogate) d4-1,2-dichloroethane (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH3           D4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1	SE224433.010           SE224433.011           SE224433.010           SE224433.011           Sample Number           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.006           SE224433.007           SE224433.009           SE224433.001           SE224433.002           SE224433.004           SE224433.005           SE224433.007           SE224433.009           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.007           SE224433.007           SE224433.008           SE224433.009           SE224433.006           SE224433.007           SE224433.007           SE224433.008           SE224433.009           SE224433.006           SE224433.007           SE224433.007           SE224433.009           SE224433.009           SE224433.009           SE224433.009           SE224433.009           SE224433.009           SE224433.009<	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 63 63 63 63 63 63 63 68 86 87 88 88 86 87 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 87 88 88 86 87 87 80 85 88 88 89 1
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0	SE224433.010           SE224433.011           SE224433.010           SE224433.011           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.006           SE224433.007           SE224433.009           SE224433.001           SE224433.001           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.007           SE224433.006           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.009           SE224433.009           SE224433.001           SE224433.007           SE224433.009           SE224433.009           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007 </td <td>%           %</td> <td>40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130%</td> <td>106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 62 63 62 63 63 68 80 60 60 60 63 68 88 88 88 88 88 88 88 88 88 88 88 88</td>	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> Recovery % 63 62 63 62 62 63 62 63 63 68 80 60 60 60 63 68 88 88 88 88 88 88 88 88 88 88 88 88
d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)  Volatile Petroleum Hydrocarbons in Soil  Parameter Bromofluorobenzene (Surrogate)  d4-1,2-dichloroethane (Surrogate)  d8-toluene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0           BH1M_0.9-1.0	SE224433.010           SE224433.011           SE224433.010           SE224433.011           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.006           SE224433.007           SE224433.009           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.006           SE224433.007           SE224433.007           SE224433.007           SE224433.009           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.009           SE224433.001           SE224433.001           SE224433.002           SE224433.002           SE224433.002           SE224433.002           SE224433.001           SE224433.002 </td <td>%           %</td> <td>40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%</td> <td>106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 63 68 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 86 87 88 88 86 86 87 88 88 86 86 86 86 87 88 88 86 86 87 88 88 86 86 86 86 86 86 86 86 87 88 88 86 86 86 86 86 86 86 86 86 86 86</td>	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% Method: MI Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 63 68 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 87 88 88 86 86 86 87 88 88 86 86 87 88 88 86 86 86 86 87 88 88 86 86 87 88 88 86 86 86 86 86 86 86 86 87 88 88 86 86 86 86 86 86 86 86 86 86 86
d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Volatile Petroleum Hydrocarbons In Soil Parameter Bromofluorobenzene (Surrogate) d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.9-1.0           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5	SE224433.010           SE224433.011           SE224433.010           SE224433.011           Sample Number           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.006           SE224433.007           SE224433.008           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.007           SE224433.003           SE224433.004           SE224433.005           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.006           SE224433.007           SE224433.007           SE224433.008           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.001           SE224433.002           SE224433.003           SE224433.004	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> Criteria 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130% 60 - 130%	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 62 80 60 ① 63 68 86 86 87 88 86 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 88 86 87 87 88 86 86 87 87 88 86 86 87 87 88 86 86 87 87 88 86 86 87 87 88 86 86 86 87 87 88 86 86 86 87 88 86 86 86 86 87 88 86 86 86 86 87 88 86 86 86 86 86 86 86 86 86 86 86 86
d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Volatile Petroleum Hydrocarbons In Soil         Parameter         Bromofluorobenzene (Surrogate)         d4-1,2-dichloroethane (Surrogate)         d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)	QR1           Trip Blank           QR1           Trip Blank           QR1           Trip Blank           Sample Name           BH1M_0.9-1.0           BH1M_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP3_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           BH2M_0.5-0.6           BH3M_0.4-0.5           TP1_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP2_0.3-0.4           TP4_0.2-0.3           QD1           BH1M_0.9-1.0           BH1M_0.3-0.4           TP4_0.2-0.3           QD1           BH3M_0.4-0.5           TP4_0.2-0.6	SE224433.010           SE224433.011           SE224433.010           SE224433.011           SE224433.001           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.005           SE224433.006           SE224433.007           SE224433.008           SE224433.009           SE224433.001           SE224433.002           SE224433.003           SE224433.004           SE224433.007           SE224433.008           SE224433.009           SE224433.001           SE224433.005           SE224433.006           SE224433.007           SE224433.006           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.007           SE224433.001           SE224433.002           SE224433.003           SE224433.003           SE224433.004           SE224433.005	%           %	40 - 130% 40 - 130% 40 - 130% 40 - 130% <b>Method: MI</b> <b>Criteria</b> 60 - 130% 60 - 130% 60 - 13	106 104 91 92 <b>E-(AU)-[ENV]AN43</b> <b>Recovery %</b> 63 62 63 62 62 63 62 63 63 68 80 60 60 60 60 60 63 88 86 86 87 88 86 86 87 88 86 86 87 88 86 86 87 88 86 87 88 88 86 87 88 86 87 88 88 86 87 88 88 86 87 88 86 87 88 88 86 88 87 80 88 86 85 88 88 80 85 88 80 85 88 80 85 88 80 85 88 80 85 88 80 85 88 80 85 80 80 85 80 80 85 80 80 80 80 80 80 80 80 80 80 80 80 80



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued)				Method: M	E-(AU)-[ENV]AN433
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	TP2_0.3-0.4	SE224433.006	%	60 - 130%	73
	TP3_0.3-0.4	SE224433.007	%	60 - 130%	79
	TP4_0.2-0.3	SE224433.008	%	60 - 130%	81
	QD1	SE224433.009	%	60 - 130%	71
Volatile Petroleum Hydrocarbons in Water				Method: M	E-(AU)-[ENV]AN433
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR1	SE224433.010	%	40 - 130%	96
d4-1,2-dichloroethane (Surrogate)	QR1	SE224433.010	%	60 - 130%	106
d8-toluene (Surrogate)	QR1	SE224433.010	%	40 - 130%	91



### SE224433 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.

Mercury (dissolved) in Water			Method: ME-(AU)-	[ENV]AN311(Perth)/AN312
Sample Number	Parameter	Units	LOR	Result
LB234430.001	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
LB234702.001	Mercury	mg/kg	0.05	<0.05

#### OC Pesticides in Soil

OC Pesticides in Soil				Metho	d: ME-(AU)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result
LB234487.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	85

#### **OP Pesticides in Soil**

OP Pesticides in Soil				Meth	od: ME-(AU)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result
LB234487.001		Dichlorvos	mg/kg	0.5	<0.5
		Dimethoate	mg/kg	0.5	<0.5
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5
		Fenitrothion	mg/kg	0.2	<0.2
		Malathion	mg/kg	0.2	<0.2
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
Su	urrogates	2-fluorobiphenyl (Surrogate)	%	-	78
		d14-p-terphenyl (Surrogate)	%	-	100
PAH (Polynuclear Aromatic Hyd	drocarbons) in Soil			Meth	od: ME-(AU)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result
LB234487.001		Naphthalene	mg/kg	0.1	<0.1

LB234487.001	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



### SE224433 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 Soil (continued) Method: ME-(AU)-[ENV]AN420 Result Sample Number Parameter Units LOR LB234487.001 Fluoranthene 0.1 <0.1 mg/kg Pyrene mg/kg 0.1 < 0.1 0.1 <0.1 Benzo(a)anthracene mg/kg Chrysene 0.1 <0.1 mg/kg Benzo(a)pyrene mg/kg 01 <0.1 Indeno(1,2,3-cd)pyrene mg/kg 0.1 <0.1 <0.1 Dibenzo(ah)anthracene 0.1 ma/ka Benzo(ghi)perylene mg/kg 0.1 < 0.1 0.8 <0.8 Total PAH (18) mg/kg Surrogates d5-nitrobenzene (Surrogate) 88 % 2-fluorobiphenyl (Surrogate) % 78 d14-p-terphenyl (Surrogate) % 100 PCBs in Soil Method: ME-(AU)-[ENV]AN420 Sample Numb Units LOR Result Parameter LB234487.001 Arochlor 1016 mg/kg 0.2 < 0.2 Arochlor 1221 0.2 <0.2 mg/kg Arochlor 1232 mg/kg 0.2 < 0.2 Arochlor 1242 0.2 < 0.2 mg/kg Arochlor 1248 0.2 <0.2 mg/kg Arochlor 1254 mg/kg 0.2 < 0.2 Arochlor 1260 0.2 <0.2 mg/kg Arochlor 1262 0.2 <0.2 mg/kg Arochlor 1268 mg/kg 0.2 <0.2 Total PCBs (Arochlors) mg/kg 1 <1 Surrogates Tetrachloro-m-xylene (TCMX) (Surrogate) 85 % Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: ME-(AU)-[ENV]AN040/AN320 Sample Number Parameter LOR Result LB234699.001 Arsenic, As mg/kg 1 <1 Cadmium, Cd 0.3 <0.3 mg/kg Chromium, Cr mg/kg 0.5 <0.5 Copper, Cu mg/kg 0.5 <0.5 <0.5 Nickel, Ni 0.5 mg/kg Lead, Pb mg/kg 1 <1 <2.0 Zinc, Zn 2 mg/kg Trace Metals (Dissolved) in Water by ICPMS Method: ME-(AU)-[ENV]AN318 Sample Number Parameter Units Result LOR LB234377.001 Arsenic, As µg/L 1 <1 Cadmium, Cd 0.1 <0.1 µg/L Chromium, Cr µg/L 1 <1 Copper, Cu µg/L 1 <1 Lead, Pb <1 µg/L 1 Nickel, Ni µg/L 1 <1 Zinc, Zn µg/L 5 <5 TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403 Sample Number Units LOR Result Parameter LB234487.001 TRH C10-C14 mg/kg 20 <20 TRH C15-C28 45 <45 mg/kg TRH C29-C36 45 <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 Units Result Parameter LB234537 001 TRH C10-C14 µg/L 50 <50 TRH C15-C28 200 <200 µg/L TRH C29-C36 200 <200 µg/L TRH C37-C40 µg/L 200 <200 VOC's in Soil Method: ME-(AU)-[ENV]AN433

Sample Number Parameter Units LOR



### SE224433 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.

#### VOC's in Soil (continued)

VOC's in Soil (continue	od)			Meth	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB234495.001	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	91
		d8-toluene (Surrogate)	%	-	84
		Bromofluorobenzene (Surrogate)	%	-	75
	Totals	Total BTEX	mg/kg	0.6	<0.6
VOCs in Water				Meth	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB234611.001	Monocyclic Aromatic	Benzene	μg/L	0.5	<0.5
	Hydrocarbons	Toluene	μg/L	0.5	<0.5
		Ethylbenzene	μg/L	0.5	<0.5
		m/p-xylene	μg/L	1	<1
		o-xylene	μg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	μg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	102
		d8-toluene (Surrogate)	%	-	91
		Bromofluorobenzene (Surrogate)	%	-	95

#### Volatile Petroleum Hydrocarbons in Soil

Volatile Petroleum Hydroca	rbons in Soil		Metho	od: ME-(AU)-[ENV]AN433	
Sample Number Parameter			Units	LOR	Result
LB234495.001		TRH C6-C9	mg/kg	20	<20
	%	-	91		

### Volatile Petroleum Hydrocarbons in Water

Sample Number		Parameter	Units	LOR	Result
LB234611.001		TRH C6-C9	μg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	102
		d8-toluene (Surrogate)	%	-	91
		Bromofluorobenzene (Surrogate)	%	-	95

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



### **DUPLICATES**

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

#### Mercury (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 %
SE224424.034	LB234430.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	128	48
SE224433.010	LB234430.017	Mercury	µg/L	0.0001	<0.0001	<0.0001	169	35

#### Mercury in Soil

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.001	LB234702.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE224433.009	LB234702.023	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

#### Moisture Content

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224425.010	LB234513.011	% Moisture	%w/w	1	8.3	6.3	44	27
SE224433.009	LB234513.022	% Moisture	%w/w	1	17.9	18.0	36	1

#### **OC Pesticides in Soil**

OC Pesticides in Soil Method: ME-(AU)-[ENV]AN4									[ENV]AN420
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224425.010	LB234487.014		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	172	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.14	30	1
SE224433.008	LB234487.027		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	0.2	0.1	102	38
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.2	0.4	0.3	57	24

Method: ME-(AU)-[ENV]AN312

Method: ME-(AU)-[ENV]AN002



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

OC Pesticides in S	soli (continuea)						Mour	iou. Mic-(AO)-	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.008	LB234487.027		Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehvde	ma/ka	0.1	<0.1	<0.1	200	0
			Methoxychlor	ma/ka	0.1	<0.1	<0.1	200	0
			Endrin Ketone	ma/ka	0.1	<0.1	<0.1	200	0
			Isodrin	ma/ka	0.1	<0.1	<0.1	200	0
			Mirex	ma/ka	0.1	<0.1	<0.1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.17	0.16	30	2
OP Paeticidae in S	oil	ŭ					Moth	od: ME_(ALI)	
OF Festicides in 3							Widu	iou. IME-(/(0)-	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224425.010	LB234487.014		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	0
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2
PAH (Polynuclear	Aromatic Hydrocarbo	ons) in Soil					Meth	od: ME-(AU)-	[ENV]AN42
PAH (Polynuclear) Original	Aromatic Hydrocarbo Duplicate	ons) in Soil	Parameter	Units	LOR	Original	Meth Duplicate	od: ME-(AU)- Criteria %	<mark>(ENV]AN42</mark> RPD %
PAH (Polynuclear) Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter Naphthalene	Units mg/kg	LOR 0.1	Original <0.1	Meth Duplicate <0.1	od: ME-(AU)- Criteria % 200	<b>[ENV]AN42</b> RPD % 0
PAH (Polynuclear) Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter Naphthalene 2-methylnaphthalene	Units mg/kg mg/kg	LOR 0.1 0.1	Original <0.1 <0.1	Meth Duplicate <0.1 <0.1	riteria % 200 200	[ENV]AN42 RPD % 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene	Units mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1	Original <0.1 <0.1 <0.1	Meth Duplicate <0.1 <0.1 <0.1	od: ME-(AU)- Criteria % 200 200 200	(ENV)AN42 RPD % 0 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene	Units mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1	Original <0.1 <0.1 <0.1 <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200	[ENV]AN420 RPD % 0 0 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soil	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene	Units mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1	Original <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200	[ENV]AN42 RPD % 0 0 0 0 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soll	Parameter Naphthalene 2-methylnaphthalene 1-methylnaphthalene Acenaphthylene Acenaphthene Fluorene	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Complicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 200 200	ENVJAN421 RPD % 0 0 0 0 0 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soll	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 200 67	ENVJAN42 RPD % 0 0 0 0 0 0 0 30
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soll	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 67 148	ENVJAN42 RPD % 0 0 0 0 0 0 0 30 0 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soll	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 0.2 <0.1 0.4	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 67 148 50	ENVJAN42 RPD % 0 0 0 0 0 30 0 24
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Duplicate           <0.1	Criteria % 200 200 200 200 200 200 200 67 148 50 49	ENVJAN42 RPD % 0 0 0 0 0 0 30 0 24 24
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi:         ME-(AU)-           Criteria         %           200         200           200         200           200         200           200         67           148         50           49         68	ENVJAN42 RPD % 0 0 0 0 0 30 0 24 24 38
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Od:         ME-(AU)-           Criteria         %           200         200           200         200           200         200           200         67           148         50           49         68           72         72	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 38 42
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(b&j)fluoranthene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 67 148 50 49 68 72 57	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 38 42 52
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Fluoranthene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(båi)fluoranthene         Benzo(k)fluoranthene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 67 148 50 49 68 72 57 107	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 38 42 52 31
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(k)/fluoranthene         Benzo(k)/fluoranthene         Benzo(a)pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 67 148 50 49 68 72 57 107 66	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 38 42 52 31 55
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(a)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	od: ME-(AU)- Criteria % 200 200 200 200 200 67 148 50 49 68 72 57 107 66 78	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 24 38 42 52 31 55 48
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(bå)jfluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi:         ME-(AU)-           Criteria %         200           200         200           200         200           200         200           200         200           200         200           67         148           50         49           68         72           57         107           66         78           200         200	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 0 24 24 24 24 24 38 42 52 31 55 48 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ns) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi:         ME-(AU)-           Criteria         %           200         200           200         200           200         200           200         200           200         200           200         200           67         148           50         49           68         72           57         107           66         78           200         78	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 0 24 24 24 24 24 24 24 24 24 24
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soli	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(bå)ifluoranthene         Benzo(k)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td=""></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi:         ME-(AU)-           Critteria %         200           200         200           200         200           200         200           200         200           200         200           200         200           67         148           50         49           68         72           57         107           66         78           200         78           63         20	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 0 0 24 24 24 24 38 42 52 31 55 48 0 57 51
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(b&j)fluoranthene         Benzo(b/jluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ah)anthracene         Dibenzo(ah)anthracene         Benzo(ah)anthracene         Dibenzo(ah)anthracene         Benzo(ah)anthracene         Dibenzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Dibenzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Benzo(ah)anthracene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td=""></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           201           <0.1	Odi:         ME-(AU)-           Critteria         %           200         200           200         200           200         200           200         67           148         50           49         68           72         57           107         66           78         63           73         73	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 0 0 24 24 24 38 42 52 31 55 48 0 57 51 41
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(b&j)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td=""></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           66           78           200           73           57	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 24 24 24 24 38 42 52 31 55 48 0 57 51 41 45
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(båj)fluoranthene         Benzo(a)anthracene         Dibenzo(ah)anthracene         Dibenzo(ah)anthracene         Dibenzo(ah)anthracene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td=""></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi:         ME-(AU)-           Critteria         %           200         200           200         200           200         200           200         200           200         200           200         67           148         50           49         68           72         57           107         66           78         200           78         63           73         57           57         57	ENVJAN42 RPD % 0 0 0 0 0 0 0 0 0 0 0 24 24 24 24 24 38 42 52 31 55 48 0 57 51 41 41 45 37
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(b&j)fluoranthene         Benzo(a)anthracene         Dibenzo(ah)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Dibenzo(ah)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Benzo(a)anthracene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td=""></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           200           78           63           73           57           57           57           30	ENVJAN42 RPD % 0 0 0 0 0 0 0 30 0 24 24 38 42 52 31 55 48 0 57 51 41 45 37 4 1
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Fluoranthene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(b&j)fluoranthene         Benzo(b&j)fluoranthene         Benzo(a)apyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td="">         Carcinopenic PAHs, BaP TEQ <lor=lor< td="">         Carcinopenic PAHs, BaP TEQ <lor=lor< td=""> </lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi: ME-(AU)-           Criteria %           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           200           78           63           73           57           57           57           30           30	ENVJAN42 RPD % 0 0 0 0 0 0 0 24 24 38 42 52 31 55 48 0 57 51 41 45 37 4 1 45 37 4 0
PAH (Polynuclear Original SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Fluorente         Phenanthrene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(k)fluoranthene         Benzo(k)fluoranthene         Benzo(a)apyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td="">         Carcinogenic PAHs, BaP TEQ <lor=lor< td="">         Total PAH (18)         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)         2-fluorobiphenyl (Surrogate)</lor=lor<></lor=lor<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           63           73           57           30           30	ENVJAN42 RPD % 0 0 0 0 0 0 0 24 24 38 42 52 31 555 48 0 57 51 41 45 37 41 45 37 4 0 2
PAH (Polynuclear Original SE224425.010 SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	surrogates	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Fluorene         Phyrene         Benzo(a)anthracene         Chrysene         Benzo(bå)fluoranthene         Benzo(k)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(qhi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=1.or< td="">         Carcinogenic PAHs         Paluorobiphenyl (Surrogate)</lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           200           78           63           73           57           30           30           30           30           30	ENVJAN42 RPD % 0 0 0 0 0 0 0 24 24 38 42 52 31 55 48 0 57 51 41 45 57 51 41 45 37 41 0 57 51 41 45 37 4 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0
PAH (Polynuclear Original SE224425.010 SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	surrogates	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(k)fluoranthene         Benzo(k)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(qhi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=10< td="">         Carcinogenic PAHs, BaP TEQ <lor=1.or< td="">         Carcinogenic PAHs, BaP TEQ <lor=1.or< td="">         Carcinogenic PAHs (BaP TEQ <lor=1.or< td="">         Carcinogenic PAHs (Burrogate)         2-fluorobiphenyl (Surrogate)         Aluenchiphene (Surrogate)         Naphthalene         2-methylnaphthalene</lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=1.or<></lor=10<></lor=0<>	Units mg/kg mg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           20.1           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           63           73           57           57           30           30           30           200	ENVJAN420 RPD % 0 0 0 0 0 0 0 24 24 38 42 52 31 55 48 0 57 51 41 45 57 51 41 45 37 41 45 37 40 22 0 0 0 0 0 0 0 0 0 0 0 0 0
PAH (Polynuclear Original SE224425.010 SE224425.010	Aromatic Hydrocarbo Duplicate LB234487.014	ons) in Soil	Parameter         Naphthalene         2-methylnaphthalene         1-methylnaphthalene         Acenaphthylene         Acenaphthylene         Acenaphthylene         Acenaphthene         Fluorene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)anthracene         Chrysene         Benzo(k)fluoranthene         Benzo(a)pyrene         Indeno(1,2,3-cd)pyrene         Dibenzo(ah)anthracene         Benzo(ghi)perylene         Carcinogenic PAHs, BaP TEQ <lor=0< td="">         Carcinogenic PAHs, BaP TEQ <lor=10< td="">         Carcinogenic PAHs, BaP TEQ <lor=10r 2<="" td="">         Total PAH (18)         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)         Naphthalene         2-methylinaphthalene         2-methylinaphthalene</lor=10r></lor=10<></lor=0<>	Units mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Original           <0.1	Meth           Duplicate           <0.1	Odi: ME-(AU)-           Critteria %           200           200           200           200           200           200           200           200           200           200           200           200           200           200           67           148           50           49           68           72           57           107           66           78           63           73           57           30           30           30           200           200	ENVJAN42 RPD % 0 0 0 0 0 0 24 24 24 24 38 42 52 31 55 48 0 57 51 41 45 37 41 45 37 4 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0



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 Hydrocarbo	ons) in Soil (continu	ued)				Meth	od: ME-(AU)-	ENVJAN420
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.008	LB234487.027		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	0.1	0.1	113	0
			Pyrene	mg/kg	0.1	0.1	0.1	117	9
			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>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>200</td><td>0</td></lor=0<>	TEQ (mg/kg)	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>&lt;0.3</td><td>&lt;0.3</td><td>134</td><td>0</td></lor=lor<>	TEQ (mg/kg)	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>&lt;0.2</td><td>&lt;0.2</td><td>175</td><td>0</td></lor=lor>	TEQ (mg/kg)	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	3
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
PCBs in Soil							Meth	od: ME-(AU)-	(ENVJAN420
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
05004405.040	1 000 4 407 04 4		A			-0.0	-0.0	000	

SE224425.010 LB234487.014		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0	
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	1
SE224433.008	LB234487.027		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xvlene (TCMX) (Surrogate)	ma/ka	-	0	0	30	2

#### Total Recoverable Elements in SoliMaste Solide/Materials by ICDOES

Total Recoverable		ioninaterials by for OEO				Moulou. ML		110-10//1102
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.001	LB234699.014	Arsenic, As	mg/kg	1	19	20	35	2
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	13	14	34	6
		Copper, Cu	mg/kg	0.5	13	14	34	14
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	200	0
		Lead, Pb	mg/kg	1	12	13	38	7
		Zinc, Zn	mg/kg	2	5.4	6.8	63	22
SE224433.009	LB234699.023	Arsenic, As	mg/kg	1	4	5	51	28
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	6.5	8.9	36	31
		Copper, Cu	mg/kg	0.5	8.2	9.6	36	16
		Nickel, Ni	mg/kg	0.5	1.6	<0.5	86	104 ③
		Lead, Pb	mg/kg	1	8	8	42	7

Method: ME (ALD JEND/JAN040/AN220



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/Wa	ste Solids/Materials	by ICPOES (continued)				Method: ME	-(AU)-[ENV]A	N040/AN320
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.009	LB234699.023		Zinc, Zn	mg/kg	2	2.6	3.5	96	30
Trace Metals (Diss	olved) in Water by I	CPMS					Mett	nod: ME-(AU)-	-IENVIAN318
Original	Duplicate		Parameter	Units	LOR	Original	Dunlicate	Criteria %	RPD %
SE224391 003	L B234377 014		Cadmium Cd		0.1	<0.1	<0.1	200	0
02224001.000	20204077.014		Copper Cu	ug/l	1	<1	<1	200	0
			Zinc. Zn	ua/L	5	32	33	30	3
SE224433.010	LB234377.027		Arsenic, As	ua/L	1	<1	<1	200	0
			Cadmium, Cd	μα/L	0.1	<0.1	<0.1	200	0
			Chromium, Cr	µg/L	1	<1	<1	200	0
			Copper, Cu	µg/L	1	<1	<1	200	0
			Lead, Pb	µg/L	1	<1	<1	200	0
			Nickel, Ni	µg/L	1	<1	<1	200	0
			Zinc, Zn	µg/L	5	<5	<5	200	0
TRH (Total Recov	erable Hydrocarbons	) in Soil					Meth	nod: ME-(AU)-	-IENVIAN40
Original	Duplicato	,	Parameter	Unite	LOP	Original	Duplicato	Critoria %	PPD %
SE224425.010	L P224497 014			onits	20		-20	200	0
52224423.010	LU204407.014		TRH C15-C28	mg/kg	45	100	190	£00 61	59
			TBH C29-C36	ma/ka	45	130	230	56	56 Ø
			TBH C37-C40	ma/ka	100	<100	<100	200	0
			TRH C10-C36 Total	ma/ka	110	230	410	64	58
			TRH >C10-C40 Total (E bands)	ma/ka	210	<210	470	94	77
		TRH F Bands	TRH >C10-C16	ma/ka	25	<25	<25	200	0
		Harr Bando	TRH >C10-C16 - Naphthalene (F2)	ma/ka	25	<25	<25	200	0
			TRH >C16-C34 (F3)	ma/ka	90	180	330	65	59
			TRH >C34-C40 (F4)	ma/ka	120	<120	140	200	16
SE224433.008	LB234487.027		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
		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
TRH (Total Recov	erable Hydrocarbons	) in Water					Mett	nod: ME-(AU)	-[ENV]AN40
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224462.001	LB234537.023		TRH C10-C14	ua/L	50	<50	<50	200	0
			TRH C15-C28	μα/L	200	450	320	83	34
			TRH C29-C36	µg/L	200	<200	<200	200	0
			TRH C37-C40	µg/L	200	<200	<200	200	0
			TRH C10-C40	µg/L	320	450	<320	114	33
		TRH F Bands	TRH >C10-C16	µg/L	60	<60	<60	200	0
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
			TRH >C16-C34 (F3)	µg/L	500	540	<500	143	8
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0
VOC's in Soil							Mett	nod: ME-(AU)-	-JENVJAN43
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224425.010	LB234495.014	Monocyclic	Benzene	ma/ka	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	ma/ka	0.1	<0.1	<0.1	200	0
			Ethylbenzene	ma/ka	0.1	<0.1	<0.1	200	0
			m/p-xylene	ma/ka	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	8.9	50	1
			d8-toluene (Surrogate)	mg/kg	-	8.4	8.4	50	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	6.6	50	6
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0



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

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

#### VOC's in Soil (continued)

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224433.009	LB234495.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	8.8	50	3
			d8-toluene (Surrogate)	mg/kg	-	7.1	8.1	50	13
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.8	6.1	50	10
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
VOCs in Water							Meth	od: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224508.001	LB234611.025	Monocyclic	Benzene	μg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	μg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	μg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	μg/L	1	<1	<1	200	0
			o-xylene	μg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	μg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	9.9	11.7	30	16
			d8-toluene (Surrogate)	μg/L	-	9.4	11.0	30	15
			Bromofluorobenzene (Surrogate)	μg/L	-	9.8	10.6	30	9
Volatile Petroleum	Hydrocarbons in Soil						Meth	nod: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224425.010	LB234495.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.9	8.9	30	1
			d8-toluene (Surrogate)	mg/kg	-	8.4	8.4	30	0
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.0	6.6	30	6
		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
SE224433.009	LB234495.025		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	-	9.1	8.8	30	3
			d8-toluene (Surrogate)	mg/kg	-	7.1	8.1	30	13
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.8	6.1	30	10
		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



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

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil					I	Method: ME-(A	U)-[ENV]AN312
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234702.002	Mercury	mg/kg	0.05	0.20	0.2	70 - 130	100

oc	Pesticides	in	Soil	

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234487.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	90
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	85
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	87
		Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	85
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	86
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	98
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.12	0.15	40 - 130	81
OP Pesticides in So	1					N	lethod: ME-(A	U)-[ENV]AN420
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234487.002		Dichlorvos	mg/kg	0.5	1.3	2	60 - 140	67
		Diazinon (Dimpylate)	mg/kg	0.5	1.5	2	60 - 140	77
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.5	2	60 - 140	76
		Ethion	mg/kg	0.2	1.3	2	60 - 140	67
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	104
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
PAH (Polynuclear A	romatic Hydroca	rbons) in Soil				N	lethod: ME-(A	U)-[ENV]AN420
PAH (Polynuclear A Sample Number	romatic Hydroca	<mark>rbons) in Soil</mark> Parameter	Units	LOR	Result	N Expected	<mark>/ethod: ME-(A</mark> Criteria %	<mark>U)-[ENV]AN420</mark> Recovery %
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	<mark>rbons) in Soil</mark> Parameter Naphthalene	Units mg/kg	LOR 0.1	Result 3.7	K Expected 4	<mark>/lethod: ME-(A</mark> Criteria % 60 - 140	U)-[ENV]AN420 Recovery % 91
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	rbons) in Soil Parameter Naphthalene Acenaphthylene	Units mg/kg mg/kg	LOR 0.1 0.1	Result 3.7 4.1	Expected 4 4	Aethod: ME-(A Criteria % 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter           Naphthalene           Acenaphthylene           Acenaphthylene	Units mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1	Result 3.7 4.1 3.7	Expected 4 4 4	Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103 93
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter       Naphthalene       Acenaphthylene       Acenaphthylene       Phenanthrene	Units mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1	Result 3.7 4.1 3.7 3.4	Expected 4 4 4 4 4	Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter       Naphthalene       Acenaphthylene       Acenaphthylene       Phenanthrene       Phenanthrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1	Result           3.7           4.1           3.7           3.4           3.6	Expected 4 4 4 4 4 4 4 4	Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86 89
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter       Naphthalene       Acenaphthylene       Acenaphthylene       Phenanthrene       Phenanthrene       Fluoranthene	Units mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1	Result 3.7 4.1 3.7 3.4 3.6 3.5	Expected 4 4 4 4 4 4 4 4 4 4	Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86 89 89 87
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter         Naphthalene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Result 3.7 4.1 3.7 3.4 3.6 3.5 3.6	Expected           4           4           4           4           4           4           4           4           4           4           4           4           4           4	Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140 60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	bit         Parameter         Naphthalene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Result 3.7 4.1 3.7 3.4 3.6 3.5 3.6 3.9	Expected           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	Parameter         Naphthalene         Acenaphthylene         Acenaphthylene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene         d5-nitrobenzene (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Result           3.7           4.1           3.7           3.4           3.6           3.5           3.6           3.9           0.4	Expected           4           4           4           4           4           4           4           5	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97 76
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	bit         Parameter         Naphthalene         Acenaphthylene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Result           3.7           4.1           3.7           3.4           3.6           3.5           3.6           3.9           0.4           0.5	Expected           4           4           4           4           4           4           5	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         130	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97 76 104
PAH (Polynuclear A Sample Number LB234487.002	romatic Hydroca	bit         Parameter         Naphthalene         Acenaphthylene         Acenaphthylene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)         d14-p-terphenyl (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 - -	Result           3.7           4.1           3.7           3.4           3.6           3.5           3.6           3.9           0.4           0.5           0.4	Expected           4           4           4           4           4           4           5           0.5           0.5	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         130           40 - 130         40 - 130	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97 76 104 84
PAH (Polynuclear A Sample Number LB234487.002	Surrogates	Parameter         Naphthalene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)         d14-p-terphenyl (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 - -	Result           3.7           4.1           3.7           3.4           3.6           3.5           3.6           3.9           0.4           0.5           0.4	Expected           4           4           4           4           4           4           4           5           0.5           0.5	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         130           40 - 130         40 - 130           40 - 130         40 - 130           Aethod:         ME-(A	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97 76 104 84 U)-[ENV]AN420
PAH (Polynuclear A Sample Number LB234487.002 PCBs in Soil Sample Number	Surrogates	Parameter         Naphthalene         Acenaphthylene         Acenaphthene         Phenanthrene         Anthracene         Fluoranthene         Pyrene         Benzo(a)pyrene         d5-nitrobenzene (Surrogate)         2-fluorobiphenyl (Surrogate)         d14-p-terphenyl (Surrogate)	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	LOR 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 - - - - LOR	Result           3.7           4.1           3.7           3.4           3.6           3.5           3.6           3.9           0.4           0.5           0.4	Expected           4           4           4           4           4           4           4           5           0.5           0.5           0.5           0.5           0.5           0.5           0.5           0.5	Aethod:         ME-(A           Criteria %         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           60 - 140         60 - 140           40 - 130         40 - 130           40 - 130         40 - 130           Aethod:         ME-(A           Criteria %         Criteria %	U)-[ENV]AN420 Recovery % 91 103 93 86 89 87 91 97 76 104 84 U)-[ENV]AN420 Recovery %

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

Total Recoverable Elements in So	ecoverable Elements in Soll/Waste Solids/Materials by ICPOES				Method:	ME-(AU)-[EN	vjan040/an320
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
Total Recoverable Elements in Soll/Waste Solids/Materials by ICPOES       Sample Number     Parameter     Units     LOR     Res       LB234699.002     Arsenic, As     mg/kg     1     32       Cadmium, Cd     mg/kg     0.3     4.       Chromium, Cr     mg/kg     0.5     33       Copper, Cu     mg/kg     0.5     31       Nickel, Ni     mg/kg     0.5     19       Lead, Pb     mg/kg     1     90       Zinc, Zn     mg/kg     2     27       Trace Metals (Dissolved) in Water by ICPMS     Sample Number     Parameter     Units     LOR     Res	320	318.22	80 - 120	102			
	Cadmium, Cd	mg/kg	0.3	4.4	4.81	70 - 130	92
	Chromium, Cr	mg/kg	0.5	35	38.31	80 - 120	90
	Copper, Cu	mg/kg	0.5	310	290	80 - 120	107
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	99
	Lead, Pb	mg/kg	1	90	89.9	80 - 120	100
	Zinc, Zn	mg/kg	2	270	273	80 - 120	99
Trace Metals (Dissolved) in Water	by ICPMS				N	Nethod: ME-(A	U)-[ENV]AN318
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234377.002	Arsenic, As	µg/L	1	20	20	80 - 120	98
	Cadmium, Cd	µg/L	0.1	22	20	80 - 120	108
	Chromium, Cr	µg/L	1	22	20	80 - 120	110
	Copper, Cu	µg/L	1	22	20	80 - 120	109
	Lead, Pb	µg/L	1	20	20	80 - 120	102
	Nickel, Ni	μg/L	1	21	20	80 - 120	107
			5	22	20	00 400	444



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.

Comple Number	-	- Devenuedar	Liste-		Desult	Eveneted	Critorio	Decoverna
Sample Number	r	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
LB234487.002		TRH C10-C14	mg/kg	20	30	40	60 - 140	/5
		TRH C10-C20	Hig/kg	45	<45	40	60 140	75
		TRH 529-530	mg/kg	40	22	40	60 140	75 00
	TRH F Danus		mg/kg	25	-00	40	60 140	70
		TRH >C10-C34 (F3)	mg/kg	120	<120	40	60 - 140	75
			iiig/kg	120	\$120	20	00-140	
RH (Total Recov	erable Hydrocarbo	is) in water				ľ	Nethod: ME-(A	U)-[ENV]AN4
Sample Number	r	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
LB234537.002		TRH C10-C14	μg/L	50	850	1200	60 - 140	71
		TRH C15-C28	μg/L	200	1100	1200	60 - 140	90
		TRH C29-C36	µg/L	200	1100	1200	60 - 140	95
	TRH F Bands	TRH >C10-C16	μg/L	60	1000	1200	60 - 140	86
		TRH >C16-C34 (F3)	μg/L	500	1100	1200	60 - 140	88
		TRH >C34-C40 (F4)	μg/L	500	600	600	60 - 140	100
/OC's in Soil						N	lethod: ME-(A	U)-[ENV]AN4
Sample Number	r	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery
LB234495.002	Monocyclic	Benzene	mg/kg	0.1	4.2	5	60 - 140	83
	Aromatic	Toluene	mg/kg	0.1	4.4	5	60 - 140	89
		Ethylbenzene	mg/kg	0.1	4.6	5	60 - 140	93
		m/p-xylene	mg/kg	0.2	10	10	60 - 140	103
		o-xylene	mg/kg	0.1	5.0	5	60 - 140	100
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	10	70 - 130	103
		d8-toluene (Surrogate)	mg/kg	-	9.5	10	70 - 130	95
		Bromofluorobenzene (Surrogate)	mg/kg	-	7.3	10	70 - 130	73
/OCs in Water						Ν	lethod: ME-(A	U)-IENVIAN4
Sample Number	r	Parameter	Units	LOR	Result	Expected	Criteria %	Recoverv
L B234611 002	Monocyclic	Benzene		0.5	53	45.45	60 - 140	116
20201011002	Aromatic	Toluene	<u>P3</u> ,	0.5	54	45.45	60 - 140	120
	, a official	Ethylbenzene		0.5	53	45.45	60 - 140	117
		m/n-xy/ene	<u>pa</u> , 2	1	110	90.9	60 - 140	118
		0-vylene		0.5	54	45.45	60 - 140	118
	Surragatas	0 Xylone	P9/L	0.0	44.4	10	00 140	110
	JULIOUAIES	d4-1 2-dichloroethane (Surrogate)	ug/l	-	111	111/	60 - 140	
	Surroyates	d4-1,2-dichloroethane (Surrogate)	μg/L μg/l	-	11.1	10	60 - 140 70 - 130	100
	Surroyates	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μα/L	-	11.1	10	60 - 140 70 - 130 70 - 130	100
/olatile Petroleum		d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L	-	11.1 10.0 9.4	10 10 10	60 - 140 70 - 130 70 - 130	100 94
/olatile Petroleum	Hydrocarbons in S	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ioll	µg/L µg/L µg/L	-	11.1 10.0 9.4	10 10 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A	100 94 U)-[ENV]AN4
/olatile Petroleum Sample Number	Hydrocarbons in §	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ioil Parameter TDU 05 040	µg/L µg/L µg/L Units	- - LOR	11.1 10.0 9.4 Result	10 10 10 Expected	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria %	100 94 U)-[ENV]AN4 Recovery
/olatile Petroleum Sample Number LB234495.002	n Hydrocarbons in S	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ioil Parameter TRH C6-C10 TRH C6-C10	μg/L μg/L μg/L Units mg/kg mg/kg	- - LOR 25	11.1 10.0 9.4 Result 68	10 10 10 Expected 92.5	60 - 140 70 - 130 70 - 130 <b>Aethod: ME-(A</b> Criteria % 60 - 140	100 94 U)-[ENV]AN4 Recovery 74
<b>/olatile Petroleum</b> Sample Number LB234495.002	Hydrocarbons in S	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) ioil Parameter TRH C6-C10 TRH C6-C9 d4 1.2 dielanoethane (Surrogate)	μg/L μg/L μg/L Units mg/kg mg/kg mg/kg	- - - LOR 25 20	11.1 10.0 9.4 Result 68 52 10.2	10 10 Expected 92.5 80	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 60 - 140	100 94 U)-[ENV]AN4 Recovery 74 65 102
<mark>/olatile Petroleum</mark> Sample Number LB234495.002	t Hydrocarbons in S r Surrogates	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioll         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)	μg/L μg/L μg/L Units mg/kg mg/kg mg/kg	- - - 25 20 -	11.1           10.0         9.4           Result         68           52         10.3           7.2         2	10 10 10 Expected 92.5 80 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 60 - 140 70 - 130	100 94 U)-[ENV]AN4 Recovery 74 65 103 72
<mark>/olatile Petroleum</mark> Sample Number LB234495.002	Surrogates	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioll         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TBH C6-C 10         TBH C6-C9	μg/L μg/L μg/L Units mg/kg mg/kg mg/kg mg/kg mg/kg	- - - 25 20 - - -	III.1           10.0         9.4           Result         68           52         10.3           7.3         40	10 10 10 Expected 92.5 80 10 10 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130	100 94 <b>U)-[ENV]AN4</b> Recovery 74 65 103 73 64
/olatile Petroleum Sample Number LB234495.002	Surrogates	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioll         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)	μg/L μg/L μg/L	- - 25 20 - - 25	III.1           10.0           9.4           Result           68           52           10.3           7.3           40	10 10 <b>Expected</b> 92.5 80 10 10 10 62.5	60 - 140 70 - 130 70 - 130 /ethod: ME-(A Criteria % 60 - 140 60 - 140 70 - 130 70 - 130 60 - 140	100 94 <b>W)-[ENV]AN4</b> Recovery 74 65 103 73 64
/olatile Petroleum Sample Number LB234495.002 /olatile Petroleum	Surrogates           Surrogates           VPH F Bands           Hydrocarbons in N	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioil         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater	μg/L μg/L μg/L Units mg/kg mg/kg mg/kg mg/kg mg/kg	- - 25 20 - - 25	III.1           10.0           9.4           Result           68           52           10.3           7.3           40	10 10 10 <b>Expected</b> 92.5 80 10 10 10 62.5	60 - 140 70 - 130 <b>/lethod: ME-(A</b> <b>Criteria %</b> 60 - 140 60 - 140 70 - 130 70 - 130 60 - 140 <b>/lethod: ME-(A</b>	100 94 U)-[ENV]AN4 Recovery 74 65 103 73 64 U)-[ENV]AN4
/olatile Petroleum Sample Number LB234495.002 /olatile Petroleum Sample Number	Surrogates VPH F Bands Hydrocarbons in V	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         soll         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater         Parameter	μg/L μg/L μg/L μg/L	- - - 25 20 - - 25 LOR	11.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result	10 10 10 Expected 92.5 80 10 10 62.5	60 - 140 70 - 130 70 - 130 /ethod: ME-(A Criteria % 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 60 - 140 Kethod: ME-(A Criteria %	100 94 U)-[ENV]AN4 Recovery 74 65 103 73 64 U)-[ENV]AN4 Recovery
Volatile Petroleum Sample Number LB234495.002 Volatile Petroleum Sample Number LB234611.002	Surrogates Surrogates VPH F Bands Hydrocarbons in V	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioil         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater         Parameter         TRH C6-C10         TRH C6-C10         TRH C6-C10	μg/L μg/L μg/L μg/L Units mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L	- - 25 20 - 25 25 LOR 50	11.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result           740	10 10 10 <b>Expected</b> 92.5 80 10 10 62.5 <b>N</b> <b>Expected</b> 946.63	60 - 140 70 - 130 70 - 130 /ethod: ME-(A Criteria % 60 - 140 70 - 130 70 - 130 70 - 130 60 - 140 /ethod: ME-(A Criteria % 60 - 140	100 94 U)-[ENV]AN/ Recovery 74 65 103 73 64 U)-[ENV]AN/ Recovery 79
Volatile Petroleum Sample Number LB234495.002 Volatile Petroleum Sample Number LB234611.002	Surrogates VPH F Bands Hydrocarbons in V	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         coll         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater         Parameter         TRH C6-C10	μg/L μg/L μg/L μg/L	- - 25 20 - - 25 25 25 25 20 - 25 25 25 20 25 20 25 20 25 20 25 20 25 20 20 25 20 25 20 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 20 25 25 20 25 25 20 25 25 20 25 25 20 25 25 20 25 25 20 25 25 20 20 20 20 20 20 20 20 20 20 20 20 20	11.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result           740           640	10 10 10 <b>Expected</b> 92.5 80 10 10 62.5 <b>K</b> Expected 946.63 818.71	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 70 - 130 70 - 130 70 - 130 60 - 140 Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140	100 94 U)-[ENV]AN4 Recovery 74 65 103 73 64 U)-[ENV]AN4 Recovery 79 78
/olatile Petroleum Sample Number LB234495.002 /olatile Petroleum Sample Number LB234611.002	Surrogates UPH F Bands UPH F Bands UPH F Bands UPH Gambons in V	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioil         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)	μg/L μg/L μg/L μg/L mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg <b>Units</b> μg/L μg/L	- - 25 20 - - 25 25 25 25 25 25 25 25 25 25 25 25 20 25 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 20 25 25 20 25 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	11.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result           740           640           11.1	10 10 10 <b>Expected</b> 92.5 80 10 10 62.5 <b>Expected</b> 946.63 818.71 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 70 - 130 70 - 130 70 - 130 60 - 140 Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140	100 94 <b>U)-[ENV]AN4</b> Recovery 74 65 103 73 64 <b>U)-[ENV]AN4</b> Recovery 79 78 111
/olatile Petroleum Sample Number LB234495.002 /olatile Petroleum Sample Number LB234611.002	Surrogates VPH F Bands VPH F Bands Surrogates Surrogates	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         ioil         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10 minus BTEX (F1)         Vater         Parameter         TRH C6-C10         TRH C6-C10         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         d4-1,2-dichloroethane (Surrogate)         d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)	μg/L μg/L μg/L μg/L	- - - 25 20 - - 25 25 - 25 - 25 - 25 - 2	III.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result           740           640           11.1           10.0	10 10 10 Expected 92.5 80 10 10 10 62.5 K Expected 946.63 818.71 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 70 - 130 70 - 130 70 - 130 60 - 140 Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130	100 94 <b>U)-[ENV]AN4</b> Recovery 6 65 103 73 64 <b>U)-[ENV]AN4</b> Recovery 6 79 78 111 110
Volatile Petroleum Sample Number LB234495.002 /olatile Petroleum Sample Number LB234611.002	Surrogates VPH F Bands VPH F Bands Surrogates Surrogates	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         icil         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)         TRH C6-C10         TRH C6-C10 minus BTEX (F1)         Vater         Parameter         TRH C6-C10         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)         d4-1,2-dichloroethane (Surrogate)         Bromofluorobenzene (Surrogate)         Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L μg/L mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/L μg/L μg/L μg/L μg/L	- - - 25 20 - - 25 25 - 25 - 25 - 25 - 2	11.1           10.0           9.4           Result           68           52           10.3           7.3           40           Result           740           640           11.1           10.0           9.4	10 10 10 Expected 92.5 80 10 10 10 62.5 <b>N</b> Expected 946.63 818.71 10 10	60 - 140 70 - 130 70 - 130 Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 Aethod: ME-(A Criteria % 60 - 140 60 - 140 60 - 140 60 - 140 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130 70 - 130	100 94 <b>U)-[ENV]AN4</b> Recovery 9 74 65 103 73 64 <b>U)-[ENV]AN4</b> Recovery 9 79 78 111 110 100 94



### **MATRIX SPIKES**

### SE224433 R0

Method: ME-(AU)-[ENV]AN312

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 identifier 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%
SE224366.005	LB234430.004	Mercury	mg/L	0.0001	0.0021	<0.0001	0.008	104

#### Mercury in Soil

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE224392.001	LB234702.004	Mercury	mg/kg	0.05	0.21	0.02016362543	0.2	95

#### **OC Pesticides in Soil**

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE224425.001	LB234487.004		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	103
			Aldrin	mg/kg	0.1	0.2	<0.1	0.2	89
			Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	97
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
			Dieldrin	mg/kg	0.2	0.2	<0.2	0.2	93
			Endrin	mg/kg	0.2	<0.2	<0.2	0.2	95
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	0.3	<0.1	0.2	108
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	-	96
<b>OP Pesticides in</b>	Soil						Meth	nod: ME-(Al	J)-[ENV]AN420
QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE224425.001	LB234487.004		Dichlorvos	mg/kg	0.5	1.5	<0.5	2	73
			Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	1.9	<0.5	2	93
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	<0.2	2	88
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
			Ethion	mg/kg	0.2	2.2	<0.2	2	109
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	7.3	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	90
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	92
PAH (Polynuclea	r Aromatic Hydrocarb	ons) in Soil					Meth	nod: ME-(Al	J)-[ENV]AN420
QC Sample	Sample Number		Parameter	Units	LOR				



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.

0.0.0								
ac Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recover
E224425.001	LB234487.004	Naphthalene	mg/kg	0.1	3.7	<0.1	4	91
		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	3.8	<0.1	4	94
		Acenaphthene	mg/kg	0.1	3.7	<0.1	4	91
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	3.5	0.1	4	85
		Anthracene	mg/kg	0.1	3.4	<0.1	4	85
		Fluoranthene	mg/kg	0.1	3.6	0.3	4	83
		Pyrene	mg/kg	0.1	3.8	0.3	4	87
		Benzo(a)anthracene	mg/kg	0.1	<0.1	0.1	-	-
		Chrysene	mg/kg	0.1	0.1	0.1	-	-
		Benzo(b&i)fluoranthene	ma/ka	0.1	0.1	0.2	-	-
		Benzo(k)fluoranthene	ma/ka	0.1	<0.1	<0.1	-	
		Benzo(a)nvrene	mg/kg	0.1	3.6	0.1	4	
		Indepo(1.2.3-cd)nyrene	mg/kg	0.1	<0.0	0.1	-	
			mg/kg	0.1	<0.1	-0.1		
			mg/kg	0.1	<0.1	<0.1	-	
				0.1	×U.1	-0.0	-	
			TEQ (mg/kg)	0.2	3.7	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <lor=lor< td=""><td>TEQ (mg/kg)</td><td>0.3</td><td>3.8</td><td>&lt;0.3</td><td>-</td><td>-</td></lor=lor<>	TEQ (mg/kg)	0.3	3.8	<0.3	-	-
		Carcinogenic PAHs, BaP TEQ <lor=lor 2<="" td=""><td>TEQ (mg/kg)</td><td>0.2</td><td>3.7</td><td>0.2</td><td>-</td><td>-</td></lor=lor>	TEQ (mg/kg)	0.2	3.7	0.2	-	-
		Total PAH (18)	mg/kg	0.8	29	1.5	-	-
	Surroga	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	-	84
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	-	90
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	92
Bs in Soil						Meth	od: ME-(Al	J)-[ENV]AN
C Sample	Sample Number	Parameter	Units	LOR	Result	Original	Snike	Recove
=224425.001		Araphar 1016	malka	0.2	<0.2	<0.2	opine	1100010
E224425.001	LB234487.004		mg/kg	0.2	<0.2	<0.2	-	-
		Arochior 1221	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1232	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1242	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1248	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1254	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1260	mg/kg	0.2	0.4	<0.2	0.4	92
		Arochlor 1262	mg/kg	0.2	<0.2	<0.2	-	-
		Arochlor 1268	mg/kg	0.2	<0.2	<0.2	-	-
		Total PCBs (Arochlors)	mg/kg	1	<1	<1	-	-
	Surroga	es Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	-	96
tal Recoverab	le Elements in Soil/Waste Solids	Materials by ICPOES				Method: ME-	(AU)-IENV	1AN040/AN
C Sampla	Sample Number	Doromotor	Unito		Booult	Original	Spiko	Pagayo
C Sample	Sample Number	Parameter	Units	LUR	Result	Original	Бріке	Recove
E224392.001	LB234699.004	Arsenic, As	mg/kg	1	46	2.17101089015	50	88
		Cadmium, Cd	mg/kg	0.3	42	0.02204071969	50	84
		Chromium, Cr	mg/kg	0.5	52	13.02029277146	50	79
		Copper, Cu	mg/kg	0.5	77	37.27033222853	50	79
		Nickel, Ni	mg/kg	0.5	47	1.79054608585	50	91
		Lead, Pb	mg/kg	1	50	7.09133917297	50	86
		Zinc, Zn	mg/kg	2	63	22.92549715909	50	79
ice Metals (Di	ssolved) in Water by ICPMS					Meth	od: ME-(AU	J)-[ENV]AN
C Samplo	Sample Number	Parameter	Unite		Rocult	Original	Spiko	Recover
22/3/5 024	L B234377 004		Units		21		20	105
224343.031	LD234311.004	Codmium Cd	µg/L	0.4	21	<0.001	20	105
			μg/L	0.1	22	<0.0001	20	109
			μg/L	. 1	23	0.001	20	109
		Copper, Cu	μg/L	1	25	0.004	20	106
		Lead, Pb	μg/L	1	21	<0.001	20	100
		Nickel, Ni	µg/L	1	24	0.003	20	104
		Zinc, Zn	µg/L	5	32	0.01	20	89
H (Total Reco	verable Hydrocarbons) in Soil					Meth	od: ME-(Al	J)-[ENV]AN



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.

									, last hat to
QC Sample	Sample Numbe	r	Parameter	Units	LOR	Result	Original	Spike	Recovery
SE224425.001	LB234487.004		TRH C10-C14	mg/kg	20	36	<20	40	90
			TRH C15-C28	mg/kg	45	120	120	40	0 (5)
			TRH C29-C36	mg/kg	45	150	160	40	-23 ⑤
			TRH C37-C40	mg/kg	100	<100	<100	-	-
			TRH C10-C36 Total	mg/kg	110	310	280	-	-
			TRH >C10-C40 Total (F bands)	mg/kg	210	230	230	-	-
		TRH F	TRH >C10-C16	mg/kg	25	35	<25	40	88
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	35	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	200	230	40	-83 (5)
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
/OC's in Soil							Met	nod: ME-(Al	J)-[ENV]AN43
QC Sample	Sample Numbe	r	Parameter	Units	LOR	Result	Original	Spike	Recovery
SE224425.001	LB234495.004	Monocyclic	Benzene	ma/ka	0.1	3.8	<0.1	5	75
		Aromatic	Toluene	mg/kg	0.1	4.2	<0.1	5	83
			Ethylbenzene	mg/kg	0.1	4.4	<0.1	5	88
			m/p-xylene	mg/kg	0.2	9.8	<0.2	10	97
			o-xylene	mg/kg	0.1	4.8	<0.1	5	95
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1.2-dichloroethane (Surrogate)	mg/kg	-	9.1	9.7	10	91
			d8-toluene (Surrogate)	mg/kg	-	8.6	9.2	10	86
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.5	7.0	10	65 ①
		Totals	Total Xylenes	mg/kg	0.3	15	<0.3	-	-
			Total BTEX	mg/kg	0.6	27	<0.6	-	-
							Mad		
vocs in water							Met	100: ME-(AU	J)-[ENV]AN43
QC Sample	Sample Numbe	r	Parameter	Units	LOR	Result	Original	Spike	Recovery
SE224357.001	LB234611.026	Monocyclic	Benzene	μg/L	0.5	50	<0.5	45.45	111
		Aromatic	Toluene	μg/L	0.5	51	<0.5	45.45	113
			Ethylbenzene	µg/L	0.5	51	<0.5	45.45	112
			m/p-xylene	µg/L	1	100	<1	90.9	112
			o-xylene	µg/L	0.5	51	<0.5	45.45	111
		Polycyclic	Naphthalene	µg/L	0.5	46	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	7.3	10	-	73
			d8-toluene (Surrogate)	μg/L	-	8.8	9.5	-	88
			Bromofluorobenzene (Surrogate)	μg/L	-	9.6	9.9	-	96
/olatile Petroleu	m Hydrocarbons in	Soil					Mett	nod: ME-(Al	J)-[ENV]AN43
QC Sample	Sample Numbe	r	Parameter	Units	LOR	Result	Original	Spike	Recovery
SE224425.001	LB234495.004		TRH C6-C10	mg/kg	25	67	<25	92.5	72
			TRH C6-C9	mg/kg	20	57	<20	80	71
						9.1	9.7	10	91
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-				
		Surrogates	d4-1,2-dichioroethane (Surrogate) d8-toluene (Surrogate)	mg/kg ma/ka	-	8.6	9.2	10	86
		Surrogates	d4-1,2-dichloroetnane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	mg/kg mg/kg ma/ka	-	8.6	9.2 7.0	- 10	65
		Surrogates	d4-1,2-0ichioroemane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0)	mg/kg mg/kg mg/kg ma/ka		8.6 6.5 3.8	9.2 7.0 <0.1	-	86 65 -
		Surrogates VPH F Bands	d4-1,2-0ichioroemane (Surrogate) d8-loluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0) TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg	- - - 0.1 25	8.6 6.5 3.8 40	9.2 7.0 <0.1 <25	10 - - 62.5	65 - 63
		Surrogates VPH F Bands	d4-1,2-0ichioroemane (Surrogate) d8-loluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0) TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg	- - 0.1 25	8.6 6.5 3.8 40	9.2 7.0 <0.1 <25	10 - - 62.5	86 65 - 63
/olatile Petroleu	m Hydrocarbons in	VPH F Bands Water	d4-1,2-0ichiordemane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0) TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg	- - 0.1 25	8.6 6.5 3.8 40	9.2 7.0 <0.1 <25 Mett	10 - 62.5 nod: ME-(AU	86 65 - 63 J)-[ENV]AN43
<mark>/olatile Petroleu</mark> QC Sample	<mark>m Hydrocarbons in</mark> Sample Numbe	Surrogates VPH F Bands Water r	d4-1,2-0ichiordemane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0) TRH C6-C10 minus BTEX (F1) Parameter	mg/kg mg/kg mg/kg mg/kg mg/kg Units	- - 0.1 25	8.6 6.5 3.8 40 Result	9.2 7.0 <0.1 <25 Met Original	10 - 62.5 nod: ME-(AU Spike	86 65 - 63 J)-[ENV]AN43 Recovery
<mark>/olatile Petroleu</mark> QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	Surrogates VPH F Bands Water r	d4-1,2-0tchiordemane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Benzene (F0) TRH C6-C10 minus BTEX (F1) Parameter TRH C6-C10	mg/kg mg/kg mg/kg mg/kg mg/kg Units µg/L	- - 0.1 25 LOR 50	8.6 6.5 3.8 40 Result 960	9.2 7.0 <0.1 <25 Mether Original <50	10 - 62.5 nod: ME-(AL Spike 946.63	86 65 - 63 J)-[ENV]AN43 Recovery' 101
<mark>/olatile Petroleun</mark> QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	Surrogates VPH F Bands Water r	d4-1,2-01chlordemane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)         TRH C6-C10 minus BTEX (F1)	mg/kg mg/kg mg/kg mg/kg mg/kg Units µg/L µg/L	- - 0.1 25 LOR 50 40	8.6 6.5 3.8 40 Result 960 840	9.2 7.0 <0.1 <25 Meth Original <50 <40	10 - 62.5 nod: ME-(AL Spike 946.63 818.71	86 65 - 63 J)-[ENV]AN43 Recovery 101 102
<mark>/olatile Petroleu</mark> QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	VPH F Bands Water r Surrogates	d4-1,2-dichloroemane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)         TRH C6-C10 minus BTEX (F1)         Parameter         TRH C6-C10         TRH C6-C9         d4-1,2-dichloroethane (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units µg/L µg/L µg/L	- - 0.1 25 LOR 50 40 -	8.6 6.5 3.8 40 <b>Result</b> 960 840 7.3	9.2 7.0 <0.1 <25 <b>Meth</b> Original <50 <40 10	10 - 62.5 hod: ME-(AU Spike 946.63 818.71 -	86 65 - 63 J)-[ENV]AN43 Recovery' 101 102 73
<mark>/olatile Petroleu</mark> QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	VPH F Bands Water r Surrogates	d4-1,2-0ichioreenane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)         TRH C6-C10 minus BTEX (F1)         Parameter         TRH C6-C10         TRH C6-C10         d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L	- - 0.1 25 LOR 50 40 -	8.6 6.5 3.8 40 <b>Result</b> 960 840 7.3 8.8	9.2 7.0 <0.1 <25 Original <50 <40 10 9.5	10 - 62.5 hod: ME-(AL Spike 946.63 818.71 - -	86 65 - 63 J)-[ENV]AN43 Recovery% 101 102 73 88
<mark>/olatile Petroleu</mark> QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	VPH F Bands Water r Surrogates	d4-1,2-0ichioreenane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)         TRH C6-C10 minus BTEX (F1)         Parameter         TRH C6-C10         TRH C6-C9         d4-toluene (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	- - 0.1 25 LOR 50 40 - -	8.6 6.5 3.8 40 <b>Result</b> 960 840 7.3 8.8 9.6	9.2 7.0 <0.1 <25 <b>Mett</b> Original <50 <40 10 9.5 9.9	10 - - 62.5 hod: ME-(AL Spike 946.63 818.71 - - -	86 65 - 3 <b>J)-[ENV]AN43</b> Recovery <sup>4</sup> 101 102 73 88 96
Volatile Petroleu QC Sample SE224357.001	<mark>m Hydrocarbons in</mark> Sample Numbe LB234611.026	Surrogates VPH F Bands Water r Surrogates VPH F	d4-1,2-0ichioreenane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)         TRH C6-C10 minus BTEX (F1)         Parameter         TRH C6-C10         TRH C6-C29         d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Benzene (F0)	mg/kg mg/kg mg/kg mg/kg mg/kg Units μg/L μg/L μg/L μg/L μg/L μg/L	- 0.1 25 LOR 50 40 - - -	8.6 6.5 3.8 40 <b>Result</b> 960 840 7.3 8.8 9.6	9.2 7.0 <0.1 <25 Original <50 <40 10 9.5 9.9 <0.5	10 - 62.5 nod: ME-(AL Spike 946.63 818.71 - - -	86 65 - - 63 <b>U)-[ENV]AN43:</b> Recovery% 101 102 73 88 88 96



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

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* 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.
- <sup>(7)</sup> LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- <sup>®</sup> 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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# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAILS	
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Telephone	61 2 95160722	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com
Project	<b>E25342 6-8 Woodburn St. Redfern</b>	SGS Reference	<b>SE224584 R0</b>
Order Number	<b>E25342</b>	Date Received	13 Oct 2021
Samples	5	Date Reported	20 Oct 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

Samples clearly labelled	Yes	Complete documentation received	Yes	
Sample container provider	SGS	Sample cooling method	Ice Bricks	
Samples received in correct containers	Yes	Sample counts by matrix	5 Water	
Date documentation received	13/10/2021	Type of documentation received	COC	
Samples received in good order	Yes	Samples received without headspace	Yes	
Sample temperature upon receipt	18°C	Sufficient sample for analysis	Yes	
Turnaround time requested	Standard			

SGS Australia Pty Ltd ABN 44 000 964 278

SAMPLE SUMMARY

Environment, Health and Safety

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

Australia

Australia

Member of the SGS Group

www.sgs.com.au



### 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

Mercury (dissolved) in Water							Method: ME-(AU)-[ENV	]AN311(Perth)/AN312
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M	SE224584.001	LB234764	13 Oct 2021	13 Oct 2021	10 Nov 2021	14 Oct 2021	10 Nov 2021	14 Oct 2021
GW-QD1	SE224584.002	LB234764	13 Oct 2021	13 Oct 2021	10 Nov 2021	14 Oct 2021	10 Nov 2021	14 Oct 2021
GW-QR1	SE224584.003	LB234764	13 Oct 2021	13 Oct 2021	10 Nov 2021	14 Oct 2021	10 Nov 2021	14 Oct 2021
PAH (Polynuclear Aromatic Hy	ydrocarbons) in Water						Method: I	ME-(AU)-[ENV]AN420
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M	SE224584.001	LB234755	13 Oct 2021	13 Oct 2021	20 Oct 2021	14 Oct 2021	23 Nov 2021	20 Oct 2021
GW-QD1	SE224584.002	LB234755	13 Oct 2021	13 Oct 2021	20 Oct 2021	14 Oct 2021	23 Nov 2021	20 Oct 2021
GW-QR1	SE224584.003	LB234755	13 Oct 2021	13 Oct 2021	20 Oct 2021	14 Oct 2021	23 Nov 2021	20 Oct 2021
Total Phenolics in Water							Method: I	ME-(AU)-[ENV]AN289
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M	SE224584.001	LB234946	13 Oct 2021	13 Oct 2021	10 Nov 2021	18 Oct 2021	10 Nov 2021	18 Oct 2021
Trace Metals (Dissolved) in W	ater by ICPMS						Method:	ME-(AU)-[ENV]AN318
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M	SE224584.001	LB234824	13 Oct 2021	13 Oct 2021	11 Apr 2022	14 Oct 2021	11 Apr 2022	19 Oct 2021
GW-QD1	SE224584.002	LB234824	13 Oct 2021	13 Oct 2021	11 Apr 2022	14 Oct 2021	11 Apr 2022	19 Oct 2021
GW-QR1	SE224584.003	LB234824	13 Oct 2021	13 Oct 2021	11 Apr 2022	14 Oct 2021	11 Apr 2022	19 Oct 2021
TRH (Total Recoverable Hydro	ocarbons) in Water						Method: I	ME-(AU)-[ENV]AN403
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Sample Name BH2M	Sample No. SE224584.001	QC Ref LB234755	Sampled 13 Oct 2021	Received 13 Oct 2021	Extraction Due 20 Oct 2021	Extracted 14 Oct 2021	Analysis Due 23 Nov 2021	Analysed 19 Oct 2021
Sample Name BH2M GW-QD1	Sample No. SE224584.001 SE224584.002	QC Ref LB234755 LB234755	Sampled 13 Oct 2021 13 Oct 2021	Received 13 Oct 2021 13 Oct 2021	Extraction Due 20 Oct 2021 20 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021	Analysed 19 Oct 2021 19 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1	Sample No. SE224584.001 SE224584.002 SE224584.003	QC Ref LB234755 LB234755 LB234755	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021	Received 13 Oct 2021 13 Oct 2021 13 Oct 2021	Extraction Due 20 Oct 2021 20 Oct 2021 20 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021	Analysis Due           23 Nov 2021           23 Nov 2021           23 Nov 2021           23 Nov 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021
Sample Name           BH2M           GW-QD1           GW-QR1           VOCs in Water	Sample No. SE224584.001 SE224584.002 SE224584.003	QC Ref LB234755 LB234755 LB234755 LB234755	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021	Received 13 Oct 2021 13 Oct 2021 13 Oct 2021	Extraction Due 20 Oct 2021 20 Oct 2021 20 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method:	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 19 Oct 2021 ME-(AU)-[ENV]AN433
Sample Name BH2M GW-QD1 GW-QR1 VOCs In Water Sample Name	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No.	QC Ref LB234755 LB234755 LB234755 QC Ref	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 33 Oct 2021 Sampled	Received 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 Received	Extraction Due 20 Oct 2021 20 Oct 2021 20 Oct 2021 Extraction Due	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: I Analysis Due	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 19 Oct 2021 ME-(AU)-[ENV]AN433 Analysed
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 Sampled 13 Oct 2021	Received           13 Oct 2021           13 Oct 2021           13 Oct 2021           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           Extraction Due           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: Analysis Due 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 ME-(AU)-[ENV]AN433 Analysed 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001 SE224584.002	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 Sampled 13 Oct 2021 13 Oct 2021	Received           13 Oct 2021           13 Oct 2021           13 Oct 2021           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           Extraction Due           27 Oct 2021           27 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 <b>Method:</b> Analysis Due 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1 GW-QR1	Sample No.           SE224584.001           SE224584.002           SE224584.003           Sample No.           SE224584.001           SE224584.001           SE224584.002           SE224584.003	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           Extraction Due           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 <b>Extracted</b> 15 Oct 2021 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021
Sample Name           BH2M           GW-QD1           GW-QR1           VOCs In Water           Sample Name           BH2M           GW-QD1           GW-QTB1	Sample No.           SE224584.001           SE224584.002           SE224584.003           Sample No.           SE224584.001           SE224584.001           SE224584.002           SE224584.003           SE224584.004	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896 LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 <b>Extracted</b> 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 <b>Method:</b> Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1 GW-QD1 GW-QR1 GW-QTS1	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001 SE224584.002 SE224584.003 SE224584.004 SE224584.005	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896 LB234896 LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021 13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 <b>Method:</b> Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> <b>Analysed</b> 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs In Water Sample Name BH2M GW-QD1 GW-QR1 GW-QTB1 GW-QTS1 Volatile Petroleum Hydrocarbo	Sample No.           SE224584.001           SE224584.002           SE224584.003           Sample No.           SE224584.001           SE224584.002           SE224584.003           SE224584.003           SE224584.003           SE224584.003           SE224584.004           SE224584.005           Sensing In Water	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896 LB234896 LB234896 LB234896	Sampled           13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: I Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Method: I	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 ME-(AU)-[ENV]AN433
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1 GW-QR1 GW-QT81 GW-QTS1 Volatile Petroleum Hydrocarbo Sample Name	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001 SE224584.002 SE224584.003 SE224584.004 SE224584.005 Sez24584.005 Sez24584.005 Sample No.	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896 LB234896 LB234896 LB234896 LB234896 LB234896 LB234896	Sampled           13 Oct 2021           Sampled	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 25 Oct 20	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Analysis Due 27 Oct 2021 Analysis Due Analysis Due	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 ME-(AU)-[ENV]AN433 Analysed
Sample Name BH2M GW-QD1 GW-QR1 VOCs In Water Sample Name BH2M GW-QD1 GW-QR1 GW-QTB1 GW-QTB1 GW-QTS1 Volatile Petroleum Hydrocarbo Sample Name BH2M	Sample No.           SE224584.001           SE224584.002           SE224584.003           SE224584.001           SE224584.001           SE224584.002           SE224584.003           SE224584.003           SE224584.004           SE224584.005           Sons In Water           Sample No.           SE224584.001	QC Ref LB234755 LB234755 LB234755 QC Ref LB234896 LB234896 LB234896 LB234896 LB234896 LB234896 LB234896 LB234896	Sampled 13 Oct 2021 13 Oct 2021 3 Oct 2021 Sampled 13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 Extracted 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: I Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Method: I Analysis Due 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1 GW-QR1 GW-QTS1 Volatile Petroleum Hydrocarbo Sample Name BH2M GW-QD1	Sample No.           SE224584.001           SE224584.002           SE224584.003           Sample No.           SE224584.001           SE224584.002           SE224584.003           SE224584.003           SE224584.004           SE224584.005           Sons in Water           Sample No.           SE224584.001           SE224584.005           Sons in Water           Sample No.           SE224584.001           SE224584.001	QC Ref           LB234755           LB234755           LB234755           LB234755           QC Ref           LB234896	Sampled           13 Oct 2021	Received           13 Oct 2021	Extraction Due           20 Oct 2021           20 Oct 2021           20 Oct 2021           20 Oct 2021           27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 5 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Method: 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 ME-(AU)-[ENV]AN433 Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 18 Oct 2021 ME-(AU)-[ENV]AN433 Analysed 18 Oct 2021 18 Oct 2021 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs in Water Sample Name BH2M GW-QD1 GW-QR1 GW-QTS1 Volatile Petroleum Hydrocarbo Sample Name BH2M GW-QD1 GW-QD1 GW-QR1	Sample No.           SE224584.001           SE224584.002           SE224584.003           Sample No.           SE224584.001           SE224584.002           SE224584.003           SE224584.003           SE224584.004           SE224584.005           Sons In Water           Sample No.           SE224584.001           SE224584.001           SE224584.001           SE224584.001           SE224584.001           SE224584.002           SE224584.002	QC Ref           LB234755           LB234755           LB234755           LB234755           QC Ref           LB234896	Sampled           13 Oct 2021           13 Oct 2021	Received           13 Oct 2021	Extraction Due 20 Oct 2021 27	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Method: Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 ME-(AU)-[ENV]AN433 Analysed 18 Oct 2021 18 Oct 2021
Sample Name BH2M GW-QD1 GW-QR1 VOCs In Water Sample Name BH2M GW-QD1 GW-QR1 GW-QTS1 Volatile Petroleum Hydrocarbor Sample Name BH2M GW-QD1 GW-QR1 GW-QTB1	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001 SE224584.002 SE224584.003 SE224584.004 SE224584.005 Sample No. SE224584.001 SE224584.001 SE224584.002 SE224584.003 SE224584.004	QC Ref           LB234755           LB234755           LB234755           LB234755           QC Ref           LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 13 Oct 2021	Received           13 Oct 2021	Extraction Due 20 Oct 2021 20 Oct 2021 20 Oct 2021 20 Oct 2021 Extraction Due 27 Oct 2021 27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method:   Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Method:   Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 19 Oct 2021
Sample Name           BH2M           GW-QD1           GW-QD1           GW-QR1           VOCs In Water           Sample Name           BH2M           GW-QD1           GW-QT1           GW-QT1           GW-QT1           GW-QT1           GW-QT1           GW-QT51           Volatile Petroleum Hydrocarbox           Sample Name           BH2M           GW-QD1           GW-QD1           GW-QT1           GW-QT1           GW-QT1           GW-QT1           GW-QT51	Sample No. SE224584.001 SE224584.002 SE224584.003 Sample No. SE224584.001 SE224584.002 SE224584.003 SE224584.004 SE224584.005 Sample No. SE224584.001 SE224584.001 SE224584.002 SE224584.003 SE224584.003	QC Ref           LB234755           LB234755           LB234755           LB234755           QC Ref           LB234896           LB234896	Sampled 13 Oct 2021 13 Oct 2021 13 Oct 2021 3 Oct 2021 13 Oct 2021	Received           13 Oct 2021           13 Oct 2021	Extraction Due 20 Oct 2021 20 Oct 2021 20 Oct 2021 20 Oct 2021 Extraction Due 27 Oct 2021 27 Oct 2021	Extracted 14 Oct 2021 14 Oct 2021 14 Oct 2021 Extracted 15 Oct 2021 15 Oct 2021	Analysis Due 23 Nov 2021 23 Nov 2021 23 Nov 2021 Method: I Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 Analysis Due 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021 27 Oct 2021	Analysed 19 Oct 2021 19 Oct 2021 19 Oct 2021 <b>ME-(AU)-[ENV]AN433</b> Analysed 18 Oct 2021 18 Oct 2021 19 Oct 2021 19 Oct 2021



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water Method: ME-(AU)-[ENV]AN420 Parameter Sample Numb Criteria Recovery % Sample Na Units 2-fluorobiphenvl (Surrogate) BH2M SE224584.001 % 40 - 130% 60 d14-p-terphenyl (Surrogate) вн2м SE224584.001 % 40 - 130% 74 d5-nitrobenzene (Surrogate) BH2M SE224584.001 % 40 - 130% 44 Method: ME-(AU)-[ENV]AN433 VOCs in Water Parameter Sample Name Sample Number Units Criteria Recovery % Bromofluorobenzene (Surrogate) BH2M SE224584.001 40 - 130% 101 % GW-QD1 SE224584.002 % 40 - 130% 101 GW-OR1 SE224584 003 % 40 - 130% 101 GW-QTB1 SE224584.004 % 40 - 130% 100 GW-QTS1 SE224584.005 40 - 130% % 99 d4-1,2-dichloroethane (Surrogate) BH2M SE224584 001 % 40 - 130% 97 40 - 130% GW-QD1 SE224584.002 100 % GW-QR1 SE224584.003 40 - 130% 98 % GW-QTB1 SE224584.004 % 40 - 130% 98 GW-QTS1 SE224584.005 % 40 - 130% 104 d8-toluene (Surrogate) BH2M SE224584.001 % 40 - 130% 94 GW-QD1 SE224584.002 % 40 - 130% 95 95 GW-QR1 SE224584.003 % 40 - 130% GW-QTB1 SE224584.004 40 - 130% % 95 GW-QTS1 SE224584.005 % 40 - 130% 96 Volatile Petroleum Hydrocarbons in Water Method: ME-(AU)-[ENV]AN433 Parameter Sample Na Sample Numb Units Criteria Recovery % Bromofluorobenzene (Surrogate) BH2M SE224584.001 % 40 - 130% 101 GW-QD1 SE224584.002 40 - 130% 101 % GW-QR1 SE224584.003 40 - 130% 101 % d4-1,2-dichloroethane (Surrogate) BH2M SE224584.001 % 60 - 130% 97 GW-QD1 SE224584.002 % 60 - 130% 100 GW-QR1 SE224584.003 60 - 130% 98 % d8-toluene (Surrogate) BH2M SE224584.001 40 - 130% 94 % GW-OD1 SE224584 002 % 40 - 130% 95 GW-QR1 SE224584.003 40 - 130% 95 %



### SE224584 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.

Mercury (dissolved) in Water			Method: ME-(AU)	-[ENV]AN311(Perth)/AN312
Sample Number	Parameter	Units	LOR	Result
LB234764.001	Mercury	mg/L	0.0001	<0.0001

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Sample Number		Parameter	Units	LOR	Result
LB234755.001		Naphthalene	µg/L	0.1	<0.1
		2-methylnaphthalene	µg/L	0.1	<0.1
		1-methylnaphthalene	µg/L	0.1	<0.1
		Acenaphthylene	µg/L	0.1	<0.1
		Acenaphthene	µg/L	0.1	<0.1
		Fluorene	µg/L	0.1	<0.1
		Phenanthrene	µg/L	0.1	<0.1
		Anthracene	µg/L	0.1	<0.1
		Fluoranthene	µg/L	0.1	<0.1
		Pyrene	µg/L	0.1	<0.1
		Benzo(a)anthracene	µg/L	0.1	<0.1
		Chrysene	µg/L	0.1	<0.1
		Benzo(a)pyrene	µg/L	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
		Dibenzo(ah)anthracene	µg/L	0.1	<0.1
		Benzo(ghi)perylene	µg/L	0.1	<0.1
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	58
		2-fluorobiphenyl (Surrogate)	%	-	66
		d14-p-terphenyl (Surrogate)	%	-	78
Total Phenolics in Water				Metho	od: ME-(AU)-[ENV]AN289
Sample Number		Parameter	Units	LOR	Result

Sample Number	Parameter	Units	LOR	Result
LB234946.001	Total Phenols	mg/L	0.01	<0.01

Trace Metals (Dissolve	ed) in Water by ICPMS				Method: ME-(AU)-[ENV]AN318
Sample Number		Parameter	Units	LOR	Result
LB234824.001		Arsenic, As	µg/L	1	<1
		Cadmium, Cd	μg/L	0.1	<0.1
		Chromium, Cr	μg/L	1	<1
		Copper, Cu	μg/L	1	<1
		Lead, Pb	μg/L	1	<1
		Nickel, Ni	μg/L	1	<1
		Zinc, Zn	μg/L	5	<5
TRH (Total Recoverat	ble Hydrocarbons) in Water				Method: ME-(AU)-[ENV]AN403
Sample Number		Parameter	Units	LOR	Result
LB234755.001		TRH C10-C14	μg/L	50	<50
		TRH C15-C28	μg/L	200	<200
		TRH C29-C36	μg/L	200	<200
		TRH C37-C40	μg/L	200	<200
VOCs in Water					Method: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB234896.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1,2-dichloropropane	μg/L	0.5	<0.5
		cis-1,3-dichloropropene	μg/L	0.5	<0.5
		trans-1,3-dichloropropene	μg/L	0.5	<0.5
		1,2-dibromoethane (EDB)	μg/L	0.5	<0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	μg/L	5	<5
		Chloromethane	μg/L	5	<5
		Vinyl chloride (Chloroethene)	μg/L	0.3	<0.3
		Bromomethane	μg/L	10	<10
		Chloroethane	μg/L	5	<5
		Trichlorofluoromethane	μg/L	1	<1
		lodomethane	μg/L	5	<5



### SE224584 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.

#### Method: ME-(AU)-[ENV]AN433 VOCs in Water (continued) Result Sample Number Parameter Units LOR LB234896.001 Halogenated Aliphatics 1,1-dichloroethene 0.5 <0.5 µg/L Dichloromethane (Methylene chloride) µg/L 5 <5 Allyl chloride 2 <2 µg/L trans-1,2-dichloroethene 0.5 <0.5 µg/L 1.1-dichloroethane µg/L 0.5 <0.5 cis-1,2-dichloroethene µg/L 0.5 <0.5 <0.5 Bromochloromethane 0.5 ua/L 1,2-dichloroethane µg/L 0.5 < 0.5 0.5 <0.5 1,1,1-trichloroethane µg/L 1,1-dichloropropene 0.5 <0.5 µg/L Carbon tetrachloride µg/L 0.5 < 0.5 Dibromomethane 0.5 <0.5 µg/L Trichloroethene (Trichloroethylene,TCE) 0.5 <0.5 µg/L 1,1,2-trichloroethane µg/L 0.5 < 0.5 0.5 <0.5 1,3-dichloropropane µg/L Tetrachloroethene (Perchloroethylene,PCE) 0.5 <0.5 µg/L 1,1,1,2-tetrachloroethane µg/L 0.5 < 0.5 cis-1,4-dichloro-2-butene µg/L 1 <1 1,1,2,2-tetrachloroethane 0.5 <0.5 µg/L 1,2,3-trichloropropane µg/L 0.5 < 0.5 <1 trans-1,4-dichloro-2-butene 1 µg/L 1.2-dibromo-3-chloropropane 0.5 <0.5 µg/L Hexachlorobutadiene µg/L 0.5 < 0.5 Halogenated Aromatics <0.5 Chlorobenzene µg/L 0.5 0.5 <0.5 Bromobenzene µg/L 2-chlorotoluene µg/L 0.5 < 0.5 <0.5 4-chlorotoluene 0.5 µg/L 1.3-dichlorobenzene 0.5 < 0.5 µg/L 1,4-dichlorobenzene 0.3 < 0.3 µg/L 1.2-dichlorobenzene 0.5 <0.5 µg/L <0.5 1,2,4-trichlorobenzene µg/L 0.5 1,2,3-trichlorobenzene µg/L 0.5 < 0.5 Monocyclic Aromatic 0.5 <0.5 Benzene µg/L Hydrocarbons Toluene µg/L 0.5 <0.5 Ethylbenzene µg/L 0.5 < 0.5 m/p-xylene µg/L <1 <0.5 0.5 o-xvlene µg/L Styrene (Vinyl benzene) µg/L 0.5 <0.5 <0.5 Isopropylbenzene (Cumene) 0.5 µg/L n-propylbenzene µg/L 0.5 <0.5 1,3,5-trimethylbenzene µg/L 0.5 < 0.5 tert-butylbenzene µg/L 0.5 <0.5 < 0.5 1,2,4-trimethylbenzene µg/L 0.5 sec-butylbenzene µg/L 0.5 <0.5 p-isopropyltoluene 0.5 <0.5 µg/L n-butylbenzene µg/L 0.5 <0.5 Nitrogenous Compounds Acrylonitrile 0.5 < 0.5 µg/L Oxygenated Compounds Acetone (2-propanone) 10 <10 µg/L MtBE (Methyl-tert-butyl ether) 2 µg/L <1 Vinyl acetate µg/L 10 <10 10 <10 MEK (2-butanone) µg/L MIBK (4-methyl-2-pentanone) µg/L 5 <5 2-hexanone (MBK) µg/L 5 <5 Polycyclic VOCs Naphthalene 0.5 <0.5 µg/L Sulphonated Carbon disulfide µg/L 2 <2 Surrogates d4-1,2-dichloroethane (Surrogate) % 98 d8-toluene (Surrogate) % 93 Bromofluorobenzene (Surrogate) % 98 Trihalomethanes Chloroform (THM) µg/L 0.5 <0.5 Bromodichloromethane (THM) 0.5 <0.5 µg/L Dibromochloromethane (THM) µg/L 0.5 <0.5



## SE224584 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.

VOCs in Water (continued)				Meth	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB234896.001	Trihalomethanes	Bromoform (THM)	µg/L	0.5	<0.5
Volatile Petroleum Hydroca	rbons in Water			Meth	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB234896.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	98
		d8-toluene (Surrogate)	%	-	93
		Bromofluorobenzene (Surrogate)	%	-	98



Methods ME (ALD IEND/JANI240

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

Mercury (dissolved) i	Mercury (dissolved) in Water			Method: ME-(AU)-[ENV]AN311(Perth				
Original	Duplicate	Parameter	Units L	.OR	Original	Duplicate	Criteria %	RPD %
SE224584.003	LB234764.011	Mercury	μg/L 0.	0001	<0.0001	<0.0001	200	21

#### Total Phenolics in Water

Total Phenolics in Water						Meth	od: ME-(AU)-	ENVJAN289
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224698.003	LB234946.011	Total Phenols	mg/L	0.01	<0.01	<0.01	200	0

#### as Matels (Disselved) in Mater by IODMO

	solved) in water by it						Medi	00. IVIE-(A0)	
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224633.005	LB234824.029		Arsenic, As	µg/L	1	<1	<1	200	0
			Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
			Chromium, Cr	µg/L	1	<1	<1	200	0
			Copper, Cu	µg/L	1	<1	<1	200	0
			Lead, Pb	µg/L	1	<1	<1	200	0
			Nickel, Ni	µg/L	1	<1	<1	200	0
			Zinc, Zn	µg/L	5	<5	<5	200	0
TRH (Total Recov	erable Hydrocarbons	) in Water					Meth	od: ME-(AU)	-[ENV]AN403
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584.003	I B234755 022		TBH C10-C14	ug/l	50	<50	<50	200	0
			TBH C15-C28		200	<200	<200	200	0
			TRH C29-C36	pg/2	200	<200	<200	200	0
			TRH C37-C40	pg/t	200	<200	<200	200	0
			TRH C10-C10	pg/L	320	<320	<320	200	0
		TPH E Bands	TRH 5C10-C16	μg/L	60	<60	<60	200	0
		TRITT Danus		μg/L	60	~00	<60	200	0
				μg/L	500	<500	<500	200	0
			TPH >C10-C34 (F3)	μg/L	500	<500	<500	200	0
			TKH 2034-040 (F4)	μ9/L	500	<300	<500	200	U
VOCs in Water							Meth	od: ME-(AU)	-[ENV]AN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584.001	LB234896.023	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	200	0
		Aliphatics	Chloromethane	µg/L	5	<5	<5	200	0
			Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	200	0
			Bromomethane	µg/L	10	<10	<10	200	0
			Chloroethane	µg/L	5	<5	<5	200	0
			Trichlorofluoromethane	µg/L	1	<1	<1	200	0
			Iodomethane	µg/L	5	<5	<5	200	0
			1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	200	0
			Allyl chloride	µg/L	2	<2	<2	200	0
			trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	200	0
			Bromochloromethane	µg/L	0.5	<0.5	<0.5	200	0
			1.2-dichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	200	0
			1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	200	0
			Carbon tetrachloride	μg/L	0.5	<0.5	<0.5	200	0
			Dibromomethane	ua/L	0.5	<0.5	<0.5	200	0
			Trichloroethene (Trichloroethylene TCE)	ua/l	0.5	<0.5	<0.5	200	0
			1.1.2-trichloroethane	ua/l	0.5	<0.5	<0.5	200	0
			1.3-dichloropropane		0.5	<0.5	<0.5	200	0
			Tetrachloroethene (Perchloroethylene PCE)		0.5	<0.5	<0.5	200	0
				P3′ ⊏	0.0	-0.0	-0.0	200	<u> </u>



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

Ovininal	Dunlieste		Devenue tex		100-	Oniminat	Dunktort	Cuitouia Of	
Original	Duplicate	Hele er este d	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584.001	LB234896.023	Aliabatica	1,1,1,2-tetrachioroetnane	μg/L	0.5	<0.5	<0.5	200	0
		Allphatics	cis-1,4-dichioro-2-butene	μg/L	1	-0.5	-0.5	200	0
				μg/L	0.5	<0.5	<0.5	200	0
			1,2,3-tricnioropropane	µg/L	0.5	<0.5	<0.5	200	0
			trans-1,4-dichloro-2-butene	µg/L	1	-0.5	-0.5	200	0
			1,2-abromo-3-chioropropane	µg/L	0.5	<0.5	<0.5	200	0
			Hexachiorobutadiene	µg/L	0.5	<0.5	<0.5	200	0
		Halogenated	Chiorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatics	Bromobenzene	µg/L	0.5	<0.5	<0.5	200	0
			2-chlorotoluene	μg/L	0.5	<0.5	<0.5	200	0
			4-chlorotoluene	µg/L	0.5	<0.5	<0.5	200	0
			1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	200	0
			1,2-dichlorobenzene	μg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	200	0
		Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	μg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	μg/L	0.5	<0.5	<0.5	200	0
			Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	200	0
			Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	200	0
			n-propylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			tert-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			1,2,4-trimethylbenzene	μg/L	0.5	<0.5	<0.5	200	0
			sec-butylbenzene	μg/L	0.5	<0.5	<0.5	200	0
			p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	200	0
			n-butylbenzene	µg/L	0.5	<0.5	<0.5	200	0
		Nitrogenous	Acrylonitrile	μg/L	0.5	<0.5	<0.5	200	0
		Oxygenated	Acetone (2-propanone)	µg/L	10	<10	<10	200	0
		Compounds	MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	200	0
			Vinyl acetate	µg/L	10	<10	<10	200	0
			MEK (2-butanone)	μg/L	10	<10	<10	200	0
			MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	200	0
			2-hexanone (MBK)	µg/L	5	<5	<5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Sulphonated	Carbon disulfide	μg/L	2	<2	<2	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	9.7	9.6	30	1
			d8-toluene (Surrogate)	µg/L	-	9.4	9.7	30	4
			Bromofluorobenzene (Surrogate)	μg/L	-	10.1	10.1	30	1
		Trihalomethan	Chloroform (THM)	μg/L	0.5	<0.5	<0.5	177	0
		es	Bromodichloromethane (THM)	μg/L	0.5	<0.5	<0.5	200	0
			Dibromochloromethane (THM)	μg/L	0.5	<0.5	<0.5	200	0
			Bromoform (THM)	µg/L	0.5	<0.5	<0.5	200	0
SE224628.001	LB234896.024	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μα/L	_	9.8	10.0	30	2
		0	d8-toluene (Surrogate)	ua/L	_	9.3	9.8	30	5
			Bromofluorobenzene (Surrogate)	ua/L	-	10.1	10.1	30	0
	Linder and see to MI			r oʻ =				adu MEL CALIN I	
olatile Petroleum	riyorocarbons in Wa	II.OF					Meth	od: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584.001	LB234896.023		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	-	9.7	9.6	30	1



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

#### Valatila Datrala un Liudroosthone in Meter (centin

Volatile Petroleum	Hydrocarbons in Wa	iter (continued)					Meth	od: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584.001	LB234896.023	Surrogates	d8-toluene (Surrogate)	μg/L	-	9.4	9.7	30	4
			Bromofluorobenzene (Surrogate)	μg/L	-	10.1	10.1	30	1
		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
SE224628.001	LB234896.024		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	-	9.8	10.0	30	2
			d8-toluene (Surrogate)	μg/L	-	9.3	9.8	30	5
			Bromofluorobenzene (Surrogate)	μg/L	-	10.1	10.1	30	0
		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



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

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.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234755.002		Naphthalene	µg/L	0.1	26	40	60 - 140	64
		Acenaphthylene	µg/L	0.1	34	40	60 - 140	84
		Acenaphthene	µg/L	0.1	30	40	60 - 140	76
		Phenanthrene	µg/L	0.1	36	40	60 - 140	89
		Anthracene	µg/L	0.1	35	40	60 - 140	87
		Fluoranthene	µg/L	0.1	37	40	60 - 140	91
		Pyrene	µg/L	0.1	35	40	60 - 140	88
		Benzo(a)pyrene	µg/L	0.1	38	40	60 - 140	95
Surr	ogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	54
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.5	40 - 130	66
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	82
Total Phenolics in Water						N	lethod: ME-(Al	J)-[ENV]AN289
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234946.002		Total Phenols	mg/L	0.01	0.24	0.25	80 - 120	96

Traca	Motolo.	(Dissol	hand) in	Motor	ICDMO

Trace Metals (Diss	olved) in Water by	ICPMS				N	lethod: ME-(A	U)-[ENV]AN318
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234824.002		Arsenic, As	µg/L	1	20	20	80 - 120	102
		Cadmium, Cd	µg/L	0.1	21	20	80 - 120	107
		Chromium, Cr	µg/L	1	21	20	80 - 120	107
		Copper, Cu	µg/L	1	21	20	80 - 120	105
		Lead, Pb	µg/L	1	20	20	80 - 120	101
		Nickel, Ni	µg/L	1	21	20	80 - 120	105
		Zinc, Zn	μg/L	5	20	20	80 - 120	99
TRH (Total Recove	erable Hydrocarbo	ns) in Water				N	lethod: ME-(A	U)-[ENV]AN403
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234755.002		TRH C10-C14	µg/L	50	980	1200	60 - 140	81
		TRH C15-C28	µg/L	200	1400	1200	60 - 140	115
		TRH C29-C36	µg/L	200	1500	1200	60 - 140	122
	TRH F Bands	TRH >C10-C16	µg/L	60	1300	1200	60 - 140	106
		TRH >C16-C34 (F3)	µg/L	500	1500	1200	60 - 140	125
		TRH >C34-C40 (F4)	µg/L	500	800	600	60 - 140	134
VOCs in Water						N	lethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB234896.002	Halogenated	1,1-dichloroethene	μg/L	0.5	55	45.45	60 - 140	120
	Aliphatics	1,2-dichloroethane	μg/L	0.5	52	45.45	60 - 140	114
		Trichloroethene (Trichloroethylene, TCE)	μg/L	0.5	43	45.45	60 - 140	95
	Halogenated	Chlorobenzene	μg/L	0.5	52	45.45	60 - 140	114
	Monocyclic	Benzene	μg/L	0.5	53	45.45	60 - 140	116
	Aromatic	Toluene	μg/L	0.5	52	45.45	60 - 140	114
		Ethylbenzene	μg/L	0.5	52	45.45	60 - 140	114
		m/p-xylene	μg/L	1	100	90.9	60 - 140	114
		o-xylene	μg/L	0.5	52	45.45	60 - 140	115
						40	60 140	103
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.3	10	00 - 140	
	Surrogates	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate)	μg/L μg/L	-	10.3 9.9	10	70 - 130	99
	Surrogates	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate)	μg/L μg/L μg/L	-	10.3 9.9 9.4	10 10 10	70 - 130 70 - 130	99 94
	Surrogates Trihalomethan	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Chloroform (THM)	µg/L µg/L µg/L µg/L	- - - 0.5	10.3 9.9 9.4 58	10 10 10 45.45	70 - 130 70 - 130 60 - 140	99 94 127
Volatile Petroleum	Surrogates Trihalomethan Hydrocarbons in V	d4-1,2-dichloroethane (Surrogate)       d8-toluene (Surrogate)       Bromofluorobenzene (Surrogate)       Chloroform (THM)       Vater	μg/L μg/L μg/L μg/L	- - - 0.5	10.3 9.9 9.4 58	10 10 10 45.45	70 - 130 70 - 130 60 - 140	99 94 127 <b>U)-[ENV]AN433</b>
Volatile Petroleum Sample Number	Surrogates Trihalomethan Hydrocarbons in V	d4-1,2-dichloroethane (Surrogate) d8-toluene (Surrogate) Bromofluorobenzene (Surrogate) Chloroform (THM) Vater Parameter	μg/L μg/L μg/L μg/L Units	- - 0.5	10.3 9.9 9.4 58 Result	10 10 45.45 Expected	70 - 130 70 - 130 60 - 140 Aethod: ME-(A Criteria %	99 94 127 <b>.U)-[ENV]AN433</b> Recovery %
Volatile Petroleum Sample Number LB234896.002	Surrogates Trihalomethan Hydrocarbons in \	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Chloroform (THM)         Vator         Parameter         TRH C6-C10	μg/L μg/L μg/L μg/L Units μg/L	- - 0.5 LOR 50	10.3 9.9 9.4 58 Result 760	10 10 45.45 Expected 946.63	00 - 140 70 - 130 70 - 130 60 - 140 Aethod: ME-(A Criteria % 60 - 140	99 94 127 U)-[ENV]AN433 Recovery % 81
Volatile Petroleum Sample Number LB234896.002	Surrogates Trihalomethan Hydrocarbons in \	d4-1,2-dichloroethane (Surrogate)         d8-toluene (Surrogate)         Bromofluorobenzene (Surrogate)         Chloroform (THM)         Vator         Parameter         TRH C6-C10         TRH C6-C9	μg/L μg/L μg/L μg/L Units μg/L μg/L	- - 0.5 LOR 50 40	10.3 9.9 9.4 58 Result 760 650	10 10 45.45 Expected 946.63 818.71	00 - 140           70 - 130           70 - 130           60 - 140           Aethod: ME-(A           Criteria %           60 - 140           60 - 140	99 94 127 U)-[ENV]AN433 Recovery % 81 79

µg/L

µg/L

µg/L

9.9

9.4

450

-

50

10

10

639.67

70 - 130

70 - 130

60 - 140

d8-toluene (Surrogate)

VPH F Bands

Bromofluorobenzene (Surrogate)

TRH C6-C10 minus BTEX (F1)

99

94

70



VPH F

Bands

Benzene (F0)

TRH C6-C10 minus BTEX (F1)

### **MATRIX SPIKES**

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Trace Metals (Dis	ssolved) in Water by	ICPMS					Met	hod: ME-(AL	<b>)-[ENV]AN</b> 318
QC Sample	Sample Number	r	Parameter	Unit	s LOR	Result	Original	Spike	Recovery%
SE224583A.004	LB234824.004		Arsenic, As	μg/L	. 1	21	<1	20	105
			Cadmium, Cd	μg/L	. 0.1	22	<0.1	20	109
			Chromium, Cr	μg/L	. 1	22	<1	20	110
			Copper, Cu	μg/L	. 1	22	<1	20	107
			Lead, Pb	μg/L	. 1	21	<1	20	104
			Nickel, Ni	μg/L	. 1	22	<1	20	110
			Zinc, Zn	μg/L	. 5	22	<5	20	96
VOCs in Water							Met	hod: ME-(AL	<b>)-[ENV]AN43</b> 3
QC Sample	Sample Number	7	Parameter	Unit	s LOR	Result	Original	Spike	Recovery%
SE224611.002	LB234896.025	Monocyclic	Benzene	μg/L	. 0.5	53	0	45.45	118
		Aromatic	Toluene	μg/L	. 0.5	53	0.01377102412	45.45	117
			Ethylbenzene	μg/L	0.5	53	0.00458371961	45.45	116
			m/p-xylene	μg/L	. 1	100	0.01281519298	90.9	114
			o-xylene	μg/L	0.5	52	0.00635397674	45.45	114
		Polycyclic	Naphthalene	μg/L	0.5	51	0.01728571303	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L		10.1	9.87166503606	-	101
			d8-toluene (Surrogate)	μg/L		10.3	9.51443092736	-	103
			Bromofluorobenzene (Surrogate)	μg/L		9.6	10.11771182005	-	96
Volatile Petroleur	m Hydrocarbons in V	Vater					Met	hod: ME-(AU	J)-[ENV]AN433
QC Sample	Sample Number		Parameter	Unit	s LOR	Original	Spike	Recovery%	6
SE224611.002	LB234896.025		TRH C6-C10	μg/L	. 50	2.8083030038	5 946.63	99	
			TRH C6-C9	μg/L	. 40	2.3588747537	2 818.71	101	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L		9.8716650360	6 -	101	
			d8-toluene (Surrogate)	μg/L		9.5144309273	6 -	103	
			Bromofluorobenzene (Surrogate)	μg/L		10.117711820	DE -	96	

0.5

50

0

2.80830300385

-

639.67

98

µg/L

µg/L



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

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* 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.
- <sup>(7)</sup> LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- <sup>®</sup> 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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# STATEMENT OF QA/QC PERFORMANCE

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Email	Luiza.Barbosa@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com
Project	<b>E25342 6-8 Woodburn St. Redfern-Add</b>	SGS Reference	<b>SE224584A R0</b>
Order Number	<b>E25342</b>	Date Received	17 Nov 2021
Samples	5	Date Reported	18 Nov 2021

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

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water

1 item

Samples clearly labelled Sample container provider Samples received in correct c Date documentation received Samples received in good ord Sample temperature upon rec Turnaround time requested	ontainers ler æipt	Yes SGS Yes 17/11/2021@5:34pn Yes 18°C Next Day	Complete Sample co Sample co Type of do Samples r Sufficient s	documentation received ioling method iounts by matrix cumentation received eceived without headspace sample for analysis		Yes Ice Bricks 1 Water Email Yes Yes	
SGS Australia Pty Ltd	Environment, Health and	Unit 16 33 Ma	addox St	Alexandria NSW 2015	Australia	<b>t</b> +61 2 8594 0400	www.sgs.com.au

SGS Australia Pty Ltd ABN 44 000 964 278

SAMPLE SUMMARY

Environment, Health and Safety Unit 16 33 Maddox St PO Box 6432 Bourke Rd Alexandria NSW 2015 Alexandria NSW 2015 t +61 2 8594 0400 f +61 2 8594 0499

Australia

Member of the SGS Group



### 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

TRH Silica Gei (Total Recoverable Hydrocarbons - Silica Gei) in Water Method: ME-(AU)-[ENV]AN403								
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2M	SE224584A.001	LB237239	13 Oct 2021	17 Nov 2021	20 Oct 2021	18 Nov 2021†	28 Dec 2021	18 Nov 2021



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.


## **METHOD BLANKS**

## SE224584A R0

Method: ME-(AU)-[ENV]AN403

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

#### TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water

Sample Number	Parameter	Units	LOR	Result
LB237239.001	TRH C10-C14-Silica	µg/L	50	<50
	TRH C15-C28-Silica	µg/L	200	<200
	TRH C29-C36-Silica	µg/L	200	<200
	TRH C37-C40-Silica	µg/L	200	<200

18/11/2021



#### **DUPLICATES**

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifier 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

No duplicates were required for this job.



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.

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water Method: ME				Nethod: ME-(A	U)-[ENV]AN403		
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB237239.002	TRH C10-C14-Silica	μg/L	50	910	1200	60 - 140	76
	TRH C15-C28-Silica	μg/L	200	1200	1200	60 - 140	99
	TRH C29-C36-Silica	μg/L	200	1300	1200	60 - 140	108
	TRH >C10-C16-Silica	μg/L	60	1000	1200	60 - 140	84
	TRH >C16-C34-Silica	μg/L	500	1400	1200	60 - 140	116
	TRH >C34-C40-Silica	μg/L	500	610	600	60 - 140	102



#### **MATRIX SPIKES**

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.



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

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* 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.
- <sup>(7)</sup> LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- <sup>®</sup> 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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# STATEMENT OF QA/QC PERFORMANCE

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Project	E25342 6-8 Woodburn St. Redfern	SGS Reference	<b>SE224584B R0</b>
Order Number	E25342	Date Received	18 Nov 2021
Samples	6	Date Reported	18 Nov 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

Samples clearly labelled	Yes	Complete documentation received	Yes	
Sample container provider	SGS	Sample cooling method	Ice Bricks	
Samples received in correct containers	Yes	Sample counts by matrix	1 Water	
Date documentation received	18/11/2021@10:36a	Type of documentation received	Email	
Samples received in good order	Yes	Samples received without headspace	Yes	
Sample temperature upon receipt	18°C	Sufficient sample for analysis	Yes	
Turnaround time requested	Next Day			

SGS Australia Pty Ltd ABN 44 000 964 278

SAMPLE SUMMARY

Environment, Health and Safety Unit 16 33 Maddox St PO Box 6432 Bourke Rd Alexandria NSW 2015 Alexandria NSW 2015 t +61 2 8594 0400 f +61 2 8594 0499

Australia

Australia

4 0400 www.sgs.com.au 4 0499



#### 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

Trace Metals (Dissolved) in Wate	er by ICPMS						Method: M	IE-(AU)-[ENV]AN318
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW-QRB1	SE224584B.006	LB237268	13 Oct 2021	18 Nov 2021	11 Apr 2022	18 Nov 2021	11 Apr 2022	18 Nov 2021



## **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.

No surrogates were required for this job.



## **METHOD BLANKS**

#### SE224584B 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.

Trace Metals (Dissolved) in Water by ICPMS			I	Method: ME-(AU)-[ENV]AN318
Sample Number	Parameter	Units	LOR	Result
LB237268.001	Copper, Cu	µg/L	1	<1



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

Trace Metals (Dissol	ved) in Water by ICPMS					Meth	od: ME-(AU)-	ENVJAN318
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224584B.006	LB237268.004	Copper, Cu	μg/L	1	<1	<1	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.

Trace Metals (Dissolved) in Water by I	CPMS				N	lethod: ME-(A	U)-[ENV]AN318
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB237268.002	Copper, Cu	µg/L	1	22	20	80 - 120	108



#### **MATRIX SPIKES**

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.



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

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* 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.
- <sup>(7)</sup> LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- <sup>®</sup> 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 N – QA/QC Assessment

# N.1 Project QA/QC Protocols

Quality assurance comprises an assessment of the reliability of the field procedures and the laboratory results against standard industry practices and the SAQP. A summary of the project QA/QC protocols incorporated into this DSI is presented in **Table N-1**.

Table	N-1	QA/QC	<b>Protocols</b>
-------	-----	-------	------------------

Task	Description	Comments / Compliance with SOP or DQI
Field QA/QC		
Duplicates	<ul> <li>Field duplicates were collected / analysed as follows:</li> <li>intra-laboratory (blind) duplicates at a rate of 1 in 20 primary samples (as per NEPM); and</li> <li>inter-laboratory (split) duplicates at a rate of 1 in 20 primary samples (as per NEPM).</li> <li>RPD should be as per Table 5-2, Section 5.3.</li> </ul>	<ul> <li>Yes.</li> <li>Field QC samples are summarised in Table J-2 and calculated RPD values for soil and groundwater are displayed in Tables 3.1 and 3.2 (Appendix B).</li> <li>RPDs were generally within the acceptable range limit with the exception of the following: Soil: <ul> <li>QD1:</li> <li>Copper (RPD=45.3%).</li> <li>Lead (RPD=47.6%).</li> </ul> </li> <li>Exceedances of the RPD range limit for soil duplicates were likely to be due to the heterogeneous nature of the fill.</li> </ul>
Rinsate	Sampling equipment decontaminated after the collection of sample by washing with phosphate-free detergent (Decon 90) and potable water, followed by a final distilled water rinse. Field rinsate sample results were considered acceptable when analyte concentrations were below the corresponding LOR.	Yes. All analytes in the soil (QR1) and water (GW- QR1) below laboratory quantitation limits, except for copper in groundwater equipment rinsate sample. Copper concentration was low in groundwater sample BH2M. The non-compliance was considered to not interfere in the overall data quality.
Trip blanks	Trip blank samples were prepared and analysed by the primary laboratory for BTEX. Analytical results for trip blank samples should be below the laboratory PQLs, indicating that ideal sample transport and handling conditions were achieved.	Yes. All analytes in the soil (QTB1) and water (GW- QTB1) trip blanks were below laboratory quantitation limits.
Trip spikes	Trip spike samples were prepared and analysed by the primary laboratory for BTEX. Acceptance criteria of spike recoveries were between 70-130%, indicating that satisfactory sample transport and handling conditions were achieved.	Yes. Recoveries for water (GW-QTS1) ranged from 99% to 101%.



Task	Description	Comments / Compliance with SOP or DQI
Laboratory QA/Q	с	
Laboratory analysis	The laboratories selected were NATA accredited for the analytes selected and performed their own internal QA/QC programs.	Yes SGS - primary laboratory. Envirolab - secondary laboratory.
	Appropriate detection limits used for the analyses to be undertaken.	Practical Quantitation Limits for all tested parameters were presented in the laboratory analytical reports ( <b>Appendix L</b> ).
Holding times	Holding times are the maximum permissible elapsed time in days from the collection of the sample to its extraction and/or analysis. All extraction and analyses should be completed within standard guidelines.	<ul> <li>All DQOs were met except for the following: <u>Groundwater:</u></li> <li>Silica gel clean-up test was requested after holding times. Extraction date was due 20 October 2021. Sample extraction was completed on 18 November 2021.</li> </ul>
Laboratory duplicates	Laboratory duplicates are samples that are split in the laboratory and subsequently analysed a number of times in the same batch. These sub- samples are selected by the laboratory to assess the accuracy and precision of the analytical method. The selected laboratories should undertake QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. Intra-laboratory duplicates should be performed at a frequency of 1 per 10 samples.	All laboratory duplicates for soil samples and the majority of laboratory duplicates for groundwater were within the acceptance criteria. Laboratory DQO documents are attached in <b>Appendix M</b> . Laboratory duplicate which failed was as follow: <u>Soil:</u> • SE224433.009 (duplicate LB234699.023), • Copper (RPD = 104%). The results were less than 5 times LOR precluding acceptance criteria for RPD. • SE224425.010 (duplicate LB234487.014), • TRH C29-C36 (RPD = 56%). The RPD failed the acceptance criteria due to sample heterogeneity. Minor non-compliance.
Laboratory control standards	A laboratory control standard is a standard reference material used in preparing primary standards. The concentration should be equivalent to a mid-range standard to confirm the primary calibration. Laboratory control samples should be performed on a frequency of 1 per 20 samples or at least one per analytical run.	The Laboratory Control Samples for the analysis batches were within acceptable ranges.



Task	Description	Comments / Compliance with SOP or DQI
Matrix spikes	These are field samples to which a predetermined stock solution of known concentration has been added. The samples are then analysed for recovery of the known addition. Recoveries should be within the stated laboratory control limits of 70 to 130% and duplicates should have RPDs of less than 50%.	<ul> <li>All spikes were within acceptable ranges, except for the following: Soil:</li> <li>SE224425.001 (sample LB234487.004):</li> <li>TRH C15-C28 (Recovery = 0%).</li> <li>TRH C29-C36 (Recovery = -23%).</li> <li>F3 (Recovery = -83%).</li> <li>Recovery failed the acceptance criteria due to the presence of significant concentration of analyte.</li> <li>SE224425.001 (sample LB234495.004):</li> <li>Bromofluorobenzene (surrogate) = (Recovery = 65%).</li> <li>At least 2 of 3 surrogates are within acceptance criteria.</li> <li>Minor non-compliance.</li> </ul>
Surrogates	Surrogate spikes provide a means of checking, for every analysis that no gross errors have occurred at any stage of the procedure leading to significant analyte loss. Recoveries should be within the stated laboratory control limits.	All surrogate spikes for the analysis batches were within acceptable ranges.
Conclusion	The QA/QC indicators should either all comply with the required standards or showed no variations that would have no significant effect on the quality of the data.	Yes.

# N.2 Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_0 - C_R|}{[(C_0 + C_R)/2]} \times 100$$

Where:

 $C_{O}$  = Concentration obtained for the primary sample; and

 $C_R$  = Concentration obtained for the blind replicate or split duplicate sample.

## N.3 Field QA/QC

#### N.3.1 Field QC Samples

The field quality control samples collected during the investigation works are identified in **Table N-2**. Analytical results for the field QC samples are tabulated in **Tables 3.1** and **3.2**.



Activity	Matrix	Total No Samples	Primary Sample	Intra-Lab Duplicate	Inter-Lab Duplicate	Number Duplicates	Ratio
Field QC Samples - Duplicates							
Soil	Soil	8	BH3M_0.4-0.5	QD1	QT1	1	1:8
Groundwater	Water	1	BH2M	GW-QD1	GW-QT1	1	1:1
Other Field QC Samples							
Soil	Soil Water	QTB1 (soil trip blank). QR1 (equipment rinsate); QRB1 (rinsate water; not analysed).					
Groundwater	Water	GW-QTB1 (water trip blank); GW-QTS1 (water trip spike); GW-QR1 (equipment rinsate), GW-QRB1 (rinsate water; analysed).					

#### N.3.2 Conclusion for the Field QA/QC

All field work, including equipment decontamination and sample preservation and transport, was conducted in accordance with the SAQP and SOPs, which were devised with reference to industry-approved guidelines. All samples, including field QC samples, were transported to the primary and secondary laboratories under refrigerated conditions, using strict COC procedures. Appropriate QC measures were integrated into each sampling event and the DQI were met, or if not, the variability was suitably justified. Non-compliances were minor and unlikely to affect reliability of the data set.

El considered the field QA/QC program carried out during the DSI to be appropriate.

#### N.4 Laboratory QA/QC Data

All contracted laboratories (SGS and Envirolab) were accredited by NATA for the analyses undertaken. All analytical procedures used were industry recognised and endorsed standard methods. Appropriate QC measures were integrated into each testing batch and the DQI were met, or if not, the variability was suitably justified. Non-compliances were minor and unlikely to affect reliability of the data set.

EI considered the laboratory QA/QC programs carried out during the DSI to be appropriate.

#### N.5 Summary Of Project QA/QC

The sampling (including sample preservation, transport and decontamination procedures) and laboratory methods followed during this investigation were consistent with EI protocols. The project DQOs specified in **Section 5.2**, **Table 5-1** were considered to have been achieved. The adopted QA/QC program ensured that the data collated during the DSI were accurate, precise and representative of the (final) site conditions. It was therefore considered that the data were sufficiently precise and accurate and that the data was reliable for interpretation.

