



Accreditation No. 992  
Accredited for compliance with  
ISO/IEC 17025 - Testing

## CERTIFICATE OF ANALYSIS

**Batch No:** 24-27992

*Final Report*

**178182**

Page 1 of 5

**Client:** Environmental and Analytical Laboratories

**Contact:** Michael Glazier

**Address:** Charles Sturt University  
Locked Bag 588  
WAGGA WAGGA  
NSW  
2678  
AUSTRALIA

*Laboratory*

*Address*

Scoresby Laboratory  
Caribbean Business Park,  
22 Dalmore Drive,  
Scoresby,  
VIC 3179

*Phone*

*Fax*

**Contact:**

03 8756 8000  
03 9763 1862

Brad Snibson  
Client Manager  
Brad.Snibson@alsglobal.com

**PO No:** PU151786

**Date Sampled:**

**11-Apr-2024**

**Sampler Name:**

**Date Samples Received:**

**23-Apr-2024**

**ALS Program Ref:** EAL

**Date Issued:**

**02-May-2024**

**Program Description:** Analysis for EAL

**Client Ref:** Analysis

The hash (#) below indicates methods not covered by NATA accreditation in the performance of this service.

Analysis	Method	Laboratory	Analysis	Method	Laboratory
BTEXN	WP074	Scoresby	CHC	WP084	Scoresby
Fluoride	WK040LL	Scoresby	HVOL	WP074	Scoresby
PAH	WP075B	Scoresby	SO4 DA	WD041G	Scoresby
TOC (SFA)	WP005SF 002SF	Scoresby	TRH F2	# WP071	Scoresby
TRH & TPH (>C10)	WP071	Scoresby	TRH (C6-C10) & F1	WP074 (F1 not NATA )	Scoresby

TOC is analysed as NPOC and VOCs if present may be compromised when removing inorganic carbon .

### Signatories

Name	Title	Name	Title
Amanda Harcourt	Technical Assistant	Hoa Nguyen	Analyst
Joseph De Alwis	Analyst	Kosta Christopoulos	Deputy Team Leader Organics

Samples not collected by ALS and are tested as received.

Calculated results are based on raw data.

Samples are tested within holding time unless otherwise stated.

Results contained within this report relate only to the samples tested.

The report shall not be reproduced, except in full and results relate only to the items tested.

Batch No:

24-27992

Report Number:

178182

Client:

Environmental and Analytical Laboratories

ALS Program Ref:

EAL

Program Description:

Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
9783157	NONE	24Apr-0167	WATER	11/04/24
9783158	NONE	24Apr-0168	WATER	11/04/24
9783159	NONE	24Apr-0169	WATER	11/04/24

Analysis - Analyte	Sample No.	9783157	9783158	9783159
	Site Code Units	NONE	NONE	NONE
TOC (SFA) - Total Organic Carbon	mg/L	15		
Fluoride - Fluoride, as F	mg/L	0.16		
SO4 DA - Sulphate, as SO4	mg/L	37		
BTEXN - Benzene	mg/L		<0.001	<0.001
BTEXN - Toluene	mg/L		<0.001	<0.001
BTEXN - Ethyl Benzene	mg/L		<0.001	<0.001
BTEXN - Xylene - m & p	mg/L		<0.002	<0.002
BTEXN - Xylene - o	mg/L		<0.001	<0.001
BTEXN - Total Xylenes	mg/L		<0.002	<0.002
BTEXN - BTEX (Sum)	mg/L		<0.002	<0.002
TRH (C6-C10) & F1 - TPH C6-C9	mg/L		<0.1	<0.1
TRH (C6-C10) & F1 - TRH C6-C10	mg/L		<0.1	<0.1
TRH (C6-C10) & F1 - TRH C6-C10 minus BTEX	mg/L		<0.1	<0.1
TRH F2 - TRH>C10-C16 minus Naphthalene	mg/L		0.4	0.1
TRH & TPH (>C10) - TPH C10-C14	mg/L		0.2	0.1
TRH & TPH (>C10) - TPH C15-C28	mg/L		0.8	0.2
TRH & TPH (>C10) - TPH C29-C36	mg/L		0.5	<0.1
TRH & TPH (>C10) - Sum of TPH C10-C36	mg/L		1.5	0.3
TRH & TPH (>C10) - TRH>C10-C16	mg/L		0.4	0.1
TRH & TPH (>C10) - TRH>C16-C34	mg/L		1.2	0.2
TRH & TPH (>C10) - TRH>C34-C40	mg/L		0.4	<0.1
TRH & TPH (>C10) - Sum of TRH>C10-C40	mg/L		2.0	0.3
PAH - Naphthalene	mg/L		<0.004 LORR	<0.001
PAH - Acenaphthylene	mg/L		<0.004 LORR	<0.001
PAH - Acenaphthene	mg/L		<0.004 LORR	<0.001
PAH - Fluorene	mg/L		<0.004 LORR	<0.001
PAH - Phenanthrene	mg/L		<0.004 LORR	<0.001
PAH - Anthracene	mg/L		<0.004 LORR	<0.001
PAH - Fluoranthene	mg/L		<0.004 LORR	<0.001
PAH - Pyrene	mg/L		<0.004 LORR	<0.001
PAH - Benz(a)anthracene	mg/L		<0.004 LORR	<0.001
PAH - Chrysene	mg/L		<0.004 LORR	<0.001
PAH - Benzo(b)fluoranthene	mg/L		<0.004 LORR	<0.001
PAH - Benzo(k)fluoroanthene	mg/L		<0.004 LORR	<0.001
PAH - Benzo(a)pyrene	mg/L		<0.004 LORR	<0.001
PAH - Dibenz(a,h)anthracene	mg/L		<0.004 LORR	<0.001
PAH - Benzo(g,h,i)perylene	mg/L		<0.004 LORR	<0.001
PAH - Indeno(1,2,3-cd)pyrene	mg/L		<0.004 LORR	<0.001
PAH - Total PAH	mg/L		<0.004 LORR	<0.001
PAH - p-Terphenyl-d14-SURR	%		107	129
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,3-Trichlorobenzene	mg/L	<0.001		
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,4-Trichlorobenzene	mg/L	<0.001		
CHC - 1,2-Dichlorobenzene	mg/L	<0.001		
CHC - 1,3,5-Trichlorobenzene	mg/L	<0.001		
CHC - 1,3-Dichlorobenzene	mg/L	<0.001		
CHC - 1,4-Dichlorobenzene	mg/L	<0.001		

Batch No:

24-27992

Report Number:

178182

Client:

Environmental and Analytical Laboratories

ALS Program Ref:

EAL

Program Description:

Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
9783157	NONE	24Apr-0167	WATER	11/04/24
9783158	NONE	24Apr-0168	WATER	11/04/24
9783159	NONE	24Apr-0169	WATER	11/04/24

  

		9783157 NONE	9783158 NONE	9783159 NONE
CHC - 2-Chloronaphthalene	mg/L	<0.001		
CHC - Benzal Chloride	mg/L	<0.001		
CHC - Benzotrchloride	mg/L	<0.001		
CHC - Benzylchloride	mg/L	<0.001		
CHC - Hexachloroethane	mg/L	<0.001		
CHC - Hexachlorobutadiene	mg/L	<0.001		
CHC - Hexachlorocyclopentadiene	mg/L	<0.001		
CHC - Pentachlorobenzene	mg/L	<0.001		
HVOL - 1,1,1,2-Tetrachloroethane	mg/L	<0.001		
HVOL - 1,1,2,2-Tetrachloroethane	mg/L	<0.001		
HVOL - 1,1-Dichloroethane	mg/L	<0.001		
HVOL - 1,1-Dichloroethene	mg/L	<0.001		
HVOL - 1,1-Dichloropropene	mg/L	<0.001		
HVOL - 1,2,3-Trichloropropane	mg/L	<0.001		
HVOL - 1,2-Dibromo-3-chloropropane	mg/L	<0.001		
HVOL - 1,2-Dibromoethane	mg/L	<0.001		
HVOL - 1,2-Dichloroethene [cis]	mg/L	<0.001		
HVOL - 1,2-Dichloroethene [trans]	mg/L	<0.001		
HVOL - 1,2-Dichloroethane	mg/L	<0.001		
HVOL - 1,2-Dichloropropane	mg/L	<0.001		
HVOL - 1,3-Dichloropropane	mg/L	<0.001		
HVOL - 1,3-Dichloropropene [cis]	mg/L	<0.001		
HVOL - 1,3-Dichloropropene [trans]	mg/L	<0.001		
HVOL - 2,2-Dichloropropane	mg/L	<0.001		
HVOL - 2-Chlorotoluene	mg/L	<0.001		
HVOL - 4-Chlorotoluene	mg/L	<0.001		
HVOL - Bromochloromethane	mg/L	<0.001		
HVOL - Bromodichloromethane	mg/L	<0.001		
HVOL - Bromobenzene	mg/L	<0.001		
HVOL - Bromoform (Tribromomethane)	mg/L	<0.001		
HVOL - Carbon Tetrachloride	mg/L	<0.001		
HVOL - Chloroform (Trichloromethane)	mg/L	<0.001		
HVOL - Chlorobenzene	mg/L	<0.001		
HVOL - Dibromochloromethane	mg/L	<0.001		
HVOL - Dibromomethane	mg/L	<0.001		
HVOL - Dichloromethane	mg/L	<0.002		
HVOL - Trichlorofluoromethane (CFC11)	mg/L	<0.002		
HVOL - Tetrachloroethene	mg/L	<0.001		
HVOL - Vinyl Chloride (Monomer)	mg/L	<0.002		
HVOL - 1,1,1-Trichloroethane	mg/L	<0.001		
HVOL - 1,1,2-Trichloroethane	mg/L	<0.001		
HVOL - Trichloroethene	mg/L	<0.001		

LORR

Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

Batch No:

24-27992

Report Number:

178182

Client:

Environmental and Analytical Laboratories

ALS Program Ref:

EAL

Program Description:

Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
9783160	NONE	24Apr-0170	WATER	11/04/24
9783161	NONE	24Apr-0137	WATER	11/04/24
9783162	NONE	24Apr-0138	WATER	11/04/24

Analysis - Analyte	Sample No.	9783160	9783161	9783162
	Site Code Units	NONE	NONE	NONE
TOC (SFA) - Total Organic Carbon	mg/L	24		
Fluoride - Fluoride, as F	mg/L	0.21		
SO4 DA - Sulphate, as SO4	mg/L	39	250	58
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,3-Trichlorobenzene	mg/L	<0.001		
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L	<0.001		
CHC - 1,2,4-Trichlorobenzene	mg/L	<0.001		
CHC - 1,2-Dichlorobenzene	mg/L	<0.001		
CHC - 1,3,5-Trichlorobenzene	mg/L	<0.001		
CHC - 1,3-Dichlorobenzene	mg/L	<0.001		
CHC - 1,4-Dichlorobenzene	mg/L	<0.001		
CHC - 2-Chloronaphthalene	mg/L	<0.001		
CHC - Benzal Chloride	mg/L	<0.001		
CHC - Benzotrichloride	mg/L	<0.001		
CHC - Benzylchloride	mg/L	<0.001		
CHC - Hexachloroethane	mg/L	<0.001		
CHC - Hexachlorobutadiene	mg/L	<0.001		
CHC - Hexachlorocyclopentadiene	mg/L	<0.001		
CHC - Pentachlorobenzene	mg/L	<0.001		
HVOL - 1,1,1,2-Tetrachloroethane	mg/L	<0.001		
HVOL - 1,1,2,2-Tetrachloroethane	mg/L	<0.001		
HVOL - 1,1-Dichloroethane	mg/L	<0.001		
HVOL - 1,1-Dichloroethene	mg/L	<0.001		
HVOL - 1,1-Dichloropropene	mg/L	<0.001		
HVOL - 1,2,3-Trichloropropane	mg/L	<0.001		
HVOL - 1,2-Dibromo-3-chloropropane	mg/L	<0.001		
HVOL - 1,2-Dibromoethane	mg/L	<0.001		
HVOL - 1,2-Dichloroethene [cis]	mg/L	<0.001		
HVOL - 1,2-Dichloroethene [trans]	mg/L	<0.001		
HVOL - 1,2-Dichloroethane	mg/L	<0.001		
HVOL - 1,2-Dichloropropane	mg/L	<0.001		
HVOL - 1,3-Dichloropropane	mg/L	<0.001		
HVOL - 1,3-Dichloropropene [cis]	mg/L	<0.001		
HVOL - 1,3-Dichloropropene [trans]	mg/L	<0.001		
HVOL - 2,2-Dichloropropane	mg/L	<0.001		
HVOL - 2-Chlorotoluene	mg/L	<0.001		
HVOL - 4-Chlorotoluene	mg/L	<0.001		
HVOL - Bromochloromethane	mg/L	<0.001		
HVOL - Bromodichloromethane	mg/L	<0.001		
HVOL - Bromobenzene	mg/L	<0.001		
HVOL - Bromoform (Tribromomethane)	mg/L	<0.001		
HVOL - Carbon Tetrachloride	mg/L	<0.001		
HVOL - Chloroform (Trichloromethane)	mg/L	<0.001		
HVOL - Chlorobenzene	mg/L	<0.001		
HVOL - Dibromochloromethane	mg/L	<0.001		
HVOL - Dibromomethane	mg/L	<0.001		
HVOL - Dichloromethane	mg/L	<0.002		
HVOL - Trichlorofluoromethane (CFC11)	mg/L	<0.002		

Batch No: 24-27992  
 Report Number: 178182  
 Client: Environmental and Analytical Laboratories  
 ALS Program Ref: EAL  
 Program Description: Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
9783160	NONE	24Apr-0170	WATER	11/04/24
9783161	NONE	24Apr-0137	WATER	11/04/24
9783162	NONE	24Apr-0138	WATER	11/04/24

		9783160 NONE	9783161 NONE	9783162 NONE
HVOL - Tetrachloroethene	mg/L	<0.001		
HVOL - Vinyl Chloride (Monomer)	mg/L	<0.002		
HVOL - 1,1,1-Trichloroethane	mg/L	<0.001		
HVOL - 1,1,2-Trichloroethane	mg/L	<0.001		
HVOL - Trichloroethene	mg/L	<0.001		

Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
9783163	NONE	24Apr-0171	WATER	11/04/24
9783164	NONE	24Apr-0218	WATER	11/04/24
9783165	NONE	24Apr-0219	WATER	11/04/24

		Sample No. Site Code Units	9783163 NONE	9783164 NONE	9783165 NONE
Analysis - Analyte					
SO4 DA - Sulphate, as SO4	mg/L		31	87	440

A blank space indicates no test performed.