



**ALS AIRBORNE DUST AND WATER  
ANALYSIS AND TESTING REPORT**

**REPORT TO:** Walker Quarries

**REPORT ON:** Walker Quarries  
Groundwater Sample

**REPORT NO:** 24006666

**SAMPLED BY:** B. Collins & J. McManus

**REPORTED BY:** S.Thompson

**REPORT DATE:** 27-November-2020



Accreditation # 15784  
Site # 11436

Stephanie Thompson  
Environmental Sampling Supervisor  
ALS Coal Lithgow

Accredited for compliance with ISO/IEC 17025.

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# ALS WATER ANALYSIS AND TESTING REPORT



## WALKER QUARRY

	Units			
Date of Sample		18/11/2020		
ALS Sydney Report No.		ES2041098		
Site Reference		GW1	GW2	GW3
Sampled by		B. Collins & J. McManus		
General Comments/ Observations		Clear	Cloudy	Cloudy
Standing Water Level	m	80.85	26.96	33.32
Total Volume Purged	L	3.5	3.0	3.0
pH	pH Unit	7.9	6.5	6.2
Electrical Conductivity	µS/cm	512	503	320
Alkalinity by PC Titrator				
Hydroxide Alkalinity as CaCO <sub>3</sub>	mg/L	<1	<1	<1
Carbonate Alkalinity as CaCO <sub>3</sub>	mg/L	<1	<1	<1
Bicarbonate Alkalinity as CaCO <sub>3</sub>	mg/L	273	303	293
Total Alkalinity as CaCO <sub>3</sub>	mg/L	273	303	293
Sulfate (Turbidimetric) as SO <sub>4</sub>				
Sulfate as SO <sub>4</sub> - Turbidimetric	mg/L	<1	48	18
Chloride by Discrete Analyser				
Chloride	mg/L	22	12	6
Dissolved Major Cations				
Calcium	mg/L	56	86	24
Magnesium	mg/L	4	10	4
Sodium	mg/L	53	34	37
Potassium	mg/L	3	6	3

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Site Reference		GW1	GW2	GW3
Sampled by		B. Collins & J. McManus		
Dissolved Metals by ICP-MS				
Arsenic	mg/L	0.009	0.005	<0.001
Cadmium	mg/L	<0.0001	<0.0001	0.0
Chromium	mg/L	<0.001	0.003	<0.001
Copper	mg/L	<0.001	0.005	0.001
Lead	mg/L	<0.001	<0.001	<0.001
Nickel	mg/L	0.004	0.006	0.017
Zinc	mg/L	<0.005	0.087	0.161
Dissolved Mercury by FIMS				
Mercury	mg/L	<0.0001	<0.0001	<0.0001
EN055: Ionic Balance				
Total Anions	meq/L	6.08	7.39	6.4
Total Cations	meq/L	5.50	6.75	3.21
Ionic Balance	%	4.92	4.56	33.1

# ALS AIRBORNE DUST AND WATER ANALYSIS AND TESTING REPORT

## METHODS OF ANALYSIS

Tests for results issued in this report have been carried out at the following NATA accredited laboratories in accordance with the methods as detailed below:-

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### WATER

TEST	METHOD	ACIRL Lithgow NATA Accreditation #11436	Measure of Uncertainty
Electrical Conductivity uS/cm	CBM-E006	APHA 2510 B	2.0%
pH value	CBM-E005	APHA 4500 H	0.10 pH Units

In accordance with "Standard Methods for the Examination of Water & Wastewater" APHA, AWWA, and Water & Wastewater Examination Manual (V. Dean Adams)

Preservation procedures in accordance with AS/NZS 5667/1 when sampled by ACIRL staff unless otherwise stated.

The remaining analysis performed at ALS Environmental, 277-289 Woodpark Rd, Smithfield, NSW 2164.