

CERTIFICATE OF ANALYSIS

Work Order : **EW2303752**

Client : KIAMA COUNCIL

Contact : MS JULIE MILEVSKI

Address : 11 MANNING STREET

KIAMA NSW, AUSTRALIA 2533

Telephone : +61 02 4232 0557
Project : Minnamurra Landfill

Order number : 141275

C-O-C number : ----

Sampler : Robert DaLio
Site : Minnamurra Landfill

Quote number · WO/009/21

No. of samples received : 20 No. of samples analysed : 20 Page : 1 of 11

Laboratory : Environmental Division NSW South Coast

Contact : Aneta Prosaroski

Address : 1/19 Ralph Black Dr, North Wollongong 2500 NSW Australia

Telephone : 02 42253125

Date Samples Received : 24-Aug-2023 14:10

Date Analysis Commenced : 24-Aug-2023

Issue Date : 06-Sep-2023 14:59



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories Position Accreditation Category

Ankit Joshi Senior Chemist - Inorganics Sydney Inorganics. S

Ankit Joshi Senior Chemist - Inorganics Sydney Inorganics, Smithfield, NSW Robert DaLio Sampler Laboratory - Wollongong, NSW

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General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analytical work for this work order will be conducted at ALS Sydney.
- ED041G: LOR raised for Sulfate on various samples due to sample matrix.
- EK055G: LOR raised for Ammonia on sample 12 due to sample matrix.
- As per QWI EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions Chloride, Alkalinity and Sulfate; and Major Cations Calcium, Magnesium, Potassium and Sodium.
 Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: LOR's have been raised due to matrix interference. (High Total Dissolved Solids)
- EP035SF: LOR raised for Total Phenol on a few samples due to sample matrix.
- EK057G: LOR raised for Nitrite due to sample matrix
- ED041G: LOR raised for Sulfate due to sample matrix
- EP002: It has been noted that DOC is greater than TOC for various samples, however this difference is within the limits of experimental variation.
- Ionic Balance out of acceptable limits due to analytes not quantified in this report.
- pH performed by ALS Wollongong via in-house method EA005FD and EN67 PK.
- Electrical conductivity performed by ALS Wollongong via in-house method EA010FD and EN67 PK.
- Sampling and groundwater depth measurements completed by ALS Wollongong via inhouse sampling method EN/67.11 Groundwater Sampling Via High Flow Method.
- Sampling completed by ALS Wollongong in accordance with in-house sampling method EN/67.6 Rivers and Streams
- Temperature performed by ALS Wollongong via in-house method EA116 and EN67 PK.
- Dissolved oxygen (DO) performed by ALS Wollongong via in-house method EP025FD and EN67 PK.
- All field analysis performed by ALS Wollongong were completed at the time of sampling.
- Salinity performed by ALS Wollongong via in-house method EA020FD and EN67 PK.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 1A	MD 1B	MD 2A	MD 2B	MD 2C
		Sampli	ing date / time	24-Aug-2023 00:00	24-Aug-2023 13:15	24-Aug-2023 12:00	24-Aug-2023 12:15	24-Aug-2023 12:20
Compound	CAS Number	LOR	Unit	EW2303752-001	EW2303752-002	EW2303752-003	EW2303752-004	EW2303752-005
				Result	Result	Result	Result	Result
EA005FD: Field pH								
рН		0.1	pH Unit			7.5	7.1	7.0
EA010FD: Field Conductivity								
Electrical Conductivity (Non Compensated)		1	μS/cm			13900	14300	31200
EA020FD: Field Salinity								
Salinity		0.2	g/L			10.2	10.1	23.5
EA116: Temperature								
Temperature		0.5	°C			14.7	16.4	16.9
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L			<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L			<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L			651	728	585
Total Alkalinity as CaCO3		1	mg/L			651	728	585
ED041G: Sulfate (Turbidimetric) as SO4	2- by DA							
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L			625	629	1740
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L			5830	5640	12600
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L			224	279	418
Magnesium	7439-95-4	1	mg/L			402	384	874
Sodium	7440-23-5	1	mg/L			2980	2900	7150
Potassium	7440-09-7	1	mg/L			138	148	287
EG020F: Dissolved Metals by ICP-MS	11 111 11	11						
Manganese	7439-96-5	0.001	mg/L			0.018	0.057	0.125
Iron	7439-89-6	0.05	mg/L			0.26	0.61	1.18
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L			1.1	0.7	0.7
EK055G: Ammonia as N by Discrete An	alyser							
Ammonia as N	7664-41-7	0.01	mg/L			0.02	15.4	3.99
EK057G: Nitrite as N by Discrete Analy	ser							
Nitrite as N	14797-65-0	0.01	mg/L			<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analy	/ser	10						
Nitrate as N	14797-55-8	0.01	mg/L			0.11	0.02	<0.01

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 1A	MD 1B	MD 2A	MD 2B	MD 2C
	Sampling date / time				24-Aug-2023 13:15	24-Aug-2023 12:00	24-Aug-2023 12:15	24-Aug-2023 12:20
Compound	CAS Number	LOR	Unit	EW2303752-001	EW2303752-002	EW2303752-003	EW2303752-004	EW2303752-005
				Result	Result	Result	Result	Result
EK058G: Nitrate as N by Discrete Analys	er - Continued							
Nitrate as NO3	14797-55-8	0.05	mg/L			0.49	0.09	<0.05
EK059G: Nitrite plus Nitrate as N (NOx)	by Discrete Ana	lyser						
Nitrite + Nitrate as N		0.01	mg/L			0.11	0.02	<0.01
EN055: Ionic Balance								
ø Total Anions		0.01	meq/L			190	187	403
Ø Total Cations		0.01	meq/L			177	175	411
ø lonic Balance		0.01	%			3.55	3.12	0.96
EN67 PK: Field Tests								
Field Observations		0.01		DESTROYED	NO ACCESS / AREA OVERGROWN			
EP002: Dissolved Organic Carbon (DOC)		4						
Dissolved Organic Carbon		1	mg/L			31	29	19
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon		1	mg/L			50	31	19
EP025FD: Field Dissolved Oxygen								
Dissolved Oxygen		0.01	mg/L			6.13	1.06	0.72
Dissolved Oxygen - % Saturation		0.1	% saturation			62.9	11.2	8.4
EP035SF: Total Phenol by Segmented Flo	ow Analyser							
Phenols (Total)		0.05	mg/L			<0.10	<0.05	<0.10
FWI-EN/001: Groundwater Sampling - De	pth							
Depth		0.01	m			0.55	0.72	0.75

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 4A	MD 4B	MD 4C	MD 6A	MD 6B
		Sampli	ing date / time	24-Aug-2023 11:00	24-Aug-2023 11:15	24-Aug-2023 11:22	24-Aug-2023 12:45	24-Aug-2023 12:52
Compound	CAS Number	LOR	Unit	EW2303752-006	EW2303752-007	EW2303752-008	EW2303752-009	EW2303752-010
				Result	Result	Result	Result	Result
EA005FD: Field pH								
рН		0.1	pH Unit	7.1	7.3	7.0	7.7	7.0
EA010FD: Field Conductivity								
Electrical Conductivity (Non Compensated)		1	μS/cm	1530	2360	23300	1520	1270
EA020FD: Field Salinity								
Salinity		0.2	g/L	1.0	1.5	17.0	0.9	0.7
EA116: Temperature								
Temperature		0.5	°C	15.9	16.7	17.0	17.9	18.8
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	767	955	919	720	626
Total Alkalinity as CaCO3		1	mg/L	767	955	919	720	626
ED041G: Sulfate (Turbidimetric) as SO4	4 2- by DA							
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	126	<10	1170	50	38
ED045G: Chloride by Discrete Analyse	r							
Chloride	16887-00-6	1	mg/L	150	456	9240	126	107
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	126	101	390	84	143
Magnesium	7439-95-4	1	mg/L	63	64	608	40	36
Sodium	7440-23-5	1	mg/L	175	342	4830	204	78
Potassium	7440-09-7	1	mg/L	52	71	216	122	35
EG020F: Dissolved Metals by ICP-MS								
Manganese	7439-96-5	0.001	mg/L	0.035	0.028	0.121	0.002	0.100
Iron	7439-89-6	0.05	mg/L	0.06	0.53	1.28	0.24	0.21
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.5	0.5	0.7	0.8	0.4
EK055G: Ammonia as N by Discrete Ar	nalyser							
Ammonia as N	7664-41-7	0.01	mg/L	10.7	46.8	15.0	0.10	22.5
EK057G: Nitrite as N by Discrete Analy	/ser							
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	0.04	<0.01
EK058G: Nitrate as N by Discrete Analy	yser	17						
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	0.02	7.12	0.04

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 4A	MD 4B	MD 4C	MD 6A	MD 6B
		Sampli	ng date / time	24-Aug-2023 11:00	24-Aug-2023 11:15	24-Aug-2023 11:22	24-Aug-2023 12:45	24-Aug-2023 12:52
Compound	CAS Number	LOR	Unit	EW2303752-006	EW2303752-007	EW2303752-008	EW2303752-009	EW2303752-010
				Result	Result	Result	Result	Result
EK058G: Nitrate as N by Discrete Analyse	er - Continued							
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.05	<0.05	0.09	31.5	0.18
EK059G: Nitrite plus Nitrate as N (NOx) b	y Discrete Ana	lyser						
Nitrite + Nitrate as N		0.01	mg/L	<0.01	<0.01	0.02	7.16	0.04
EN055: Ionic Balance								
ø Total Anions		0.01	meq/L	22.2	31.9	303	19.0	16.3
Ø Total Cations		0.01	meq/L	20.4	27.0	285	19.5	14.4
ø Ionic Balance		0.01	%	4.14	8.39	3.10	1.29	6.29
EP002: Dissolved Organic Carbon (DOC)								
Dissolved Organic Carbon		1	mg/L	29	48	38	38	27
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon		1	mg/L	30	48	35	39	27
EP025FD: Field Dissolved Oxygen								
Dissolved Oxygen		0.01	mg/L	1.30	3.79	1.41	4.60	1.41
Dissolved Oxygen - % Saturation		0.1	% saturation	12.9	38.4	15.7	47.7	14.9
EP035SF: Total Phenol by Segmented Flo	w Analyser							
Phenols (Total)		0.05	mg/L	<0.05	<0.05	<0.25	<0.05	<0.05
FWI-EN/001: Groundwater Sampling - Dep	th							
Depth		0.01	m	2.02	1.17	1.16	1.10	1.23

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 6C	MD 9A	MD 9B	MD 9C	MD 10A
		Sampli	ing date / time	24-Aug-2023 13:05	24-Aug-2023 10:10	24-Aug-2023 10:15	24-Aug-2023 10:20	24-Aug-2023 09:40
Compound	CAS Number	LOR	Unit	EW2303752-011	EW2303752-012	EW2303752-013	EW2303752-014	EW2303752-015
				Result	Result	Result	Result	Result
EA005FD: Field pH								
рН		0.1	pH Unit	7.4	7.4	6.9	7.0	7.2
EA010FD: Field Conductivity								
Electrical Conductivity (Non Compensated)		1	μS/cm	20000	827	2410	2500	30300
EA020FD: Field Salinity								
Salinity		0.2	g/L	13.7	0.5	1.5	1.5	23.5
EA116: Temperature								
Temperature		0.5	°C	19.0	15.6	17.6	18.7	15.5
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	424	325	1030	1090	429
Total Alkalinity as CaCO3		1	mg/L	424	325	1030	1090	429
ED041G: Sulfate (Turbidimetric) as SO4	4 2- by DA							
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	930	<10	<10	<10	1790
ED045G: Chloride by Discrete Analyse	r							
Chloride	16887-00-6	1	mg/L	7650	120	432	380	12000
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	336	20	163	126	630
Magnesium	7439-95-4	1	mg/L	462	20	73	65	963
Sodium	7440-23-5	1	mg/L	3700	222	294	240	6840
Potassium	7440-09-7	1	mg/L	126	17	72	104	212
EG020F: Dissolved Metals by ICP-MS		4						
Manganese	7439-96-5	0.001	mg/L	0.064	0.019	0.189	0.132	0.141
Iron	7439-89-6	0.05	mg/L	17.8	0.27	2.74	4.48	<0.10
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.4	0.2	0.5	0.4	0.3
EK055G: Ammonia as N by Discrete Ar	nalyser							
Ammonia as N	7664-41-7	0.01	mg/L	15.5	<0.10	34.1	97.8	0.16
EK057G: Nitrite as N by Discrete Analy	/ser							
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.10	<0.01	<0.01	0.01
EK058G: Nitrate as N by Discrete Anal	yser							
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.50	<0.01	<0.01	0.39

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 6C	MD 9A	MD 9B	MD 9C	MD 10A
		Sampli	ng date / time	24-Aug-2023 13:05	24-Aug-2023 10:10	24-Aug-2023 10:15	24-Aug-2023 10:20	24-Aug-2023 09:40
Compound	CAS Number	LOR	Unit	EW2303752-011	EW2303752-012	EW2303752-013	EW2303752-014	EW2303752-015
				Result	Result	Result	Result	Result
EK058G: Nitrate as N by Discrete Analyse	er - Continued							
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.05	2.21	<0.05	<0.05	1.73
EK059G: Nitrite plus Nitrate as N (NOx)	y Discrete Ana	lyser						
Nitrite + Nitrate as N		0.01	mg/L	<0.01	0.50	<0.01	<0.01	0.40
EN055: Ionic Balance								
ø Total Anions		0.01	meq/L	244	9.88	32.8	32.5	384
ø Total Cations		0.01	meq/L	219	12.7	28.8	24.7	414
ø Ionic Balance		0.01	%	5.33	12.6	6.49	13.6	3.67
EP002: Dissolved Organic Carbon (DOC)								
Dissolved Organic Carbon		1	mg/L	15	208	46	57	40
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon		1	mg/L	14	201	45	56	39
EP025FD: Field Dissolved Oxygen								
Dissolved Oxygen		0.01	mg/L	0.58	5.41	0.26	0.24	6.37
Dissolved Oxygen - % Saturation		0.1	% saturation	6.6	53.5	2.7	2.5	72.0
EP035SF: Total Phenol by Segmented Flo	w Analyser							
Phenols (Total)		0.05	mg/L	<0.05	<0.10	<0.05	<0.05	<0.10
FWI-EN/001: Groundwater Sampling - Dep	oth	4						
Depth		0.01	m	1.45	0.50	0.88	0.85	0.65

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 10B	Rocklow Down	Rocklow Middle	Rocklow Up	BLANK
,		Sampli	ing date / time	24-Aug-2023 09:30	24-Aug-2023 08:20	24-Aug-2023 09:15	24-Aug-2023 08:55	24-Aug-2023 08:10
Compound	CAS Number	LOR	Unit	EW2303752-016	EW2303752-017	EW2303752-018	EW2303752-019	EW2303752-020
				Result	Result	Result	Result	Result
EA005FD: Field pH								
pH		0.1	pH Unit	7.0	7.1	7.0	7.2	
EA010FD: Field Conductivity	11 11 11	10						
Electrical Conductivity (Non Compensated)		1	μS/cm	1200	22500	18300	872	
EA020FD: Field Salinity		4						
Salinity		0.2	g/L	0.8	17.4	13.9	0.6	
EA116: Temperature								
Temperature		0.5	°C	19.1	14.4	14.3	14.4	
ED037P: Alkalinity by PC Titrator		10						
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	523	172	183	98	
Total Alkalinity as CaCO3		1	mg/L	523	172	183	98	
ED041G: Sulfate (Turbidimetric) as SC	04 2- by DA							
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	1260	934	56	
ED045G: Chloride by Discrete Analyse	er							
Chloride	16887-00-6	1	mg/L	125	8870	7240	266	
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	54				
Magnesium	7439-95-4	1	mg/L	23				
Sodium	7440-23-5	1	mg/L	80				
Potassium	7440-09-7	1	mg/L	49				
ED093T: Total Major Cations								
Calcium	7440-70-2	1	mg/L		270	224	30	
Magnesium	7439-95-4	1	mg/L		676	548	25	
Sodium	7440-23-5	1	mg/L		5670	4540	163	
Potassium	7440-09-7	1	mg/L		214	171	9	
EG020F: Dissolved Metals by ICP-MS								
Manganese	7439-96-5	0.001	mg/L	0.232				<0.001
Iron	7439-89-6	0.05	mg/L	0.48				<0.05
EG020T: Total Metals by ICP-MS								
Manganese	7439-96-5	0.001	mg/L		0.091	0.145	0.156	
Iron	7439-89-6	0.05	mg/L		0.87	0.98	4.08	

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Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MD 10B	Rocklow Down	Rocklow Middle	Rocklow Up	BLANK
	Sampling date / time			24-Aug-2023 09:30	24-Aug-2023 08:20	24-Aug-2023 09:15	24-Aug-2023 08:55	24-Aug-2023 08:10
Compound	CAS Number	LOR	Unit	EW2303752-016	EW2303752-017	EW2303752-018	EW2303752-019	EW2303752-020
				Result	Result	Result	Result	Result
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.9	0.6	0.6	0.2	
EK055G: Ammonia as N by Discrete Analy	yser							
Ammonia as N	7664-41-7	0.01	mg/L	62.0	2.31	1.53	0.17	
EK057G: Nitrite as N by Discrete Analyse	r							
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.02	0.02	0.01	
EK058G: Nitrate as N by Discrete Analyse	er							
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.08	0.11	0.05	
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.05	0.35	0.49	0.22	
EK059G: Nitrite plus Nitrate as N (NOx)	y Discrete Ana	lyser						
Nitrite + Nitrate as N		0.01	mg/L	<0.01	0.10	0.13	0.06	
EN055: Ionic Balance								
ø Total Anions		0.01	meq/L	14.0				
ø Total Cations		0.01	meq/L	9.32				
ø Ionic Balance		0.01	%	20.0				
EP002: Dissolved Organic Carbon (DOC)								
Dissolved Organic Carbon		1	mg/L	44	<1	8	10	<1
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon		1	mg/L	44	8	9	11	
EP025FD: Field Dissolved Oxygen								
Dissolved Oxygen		0.01	mg/L	1.35	5.13	5.00	7.73	
Dissolved Oxygen - % Saturation		0.1	% saturation	14.3	54.8	52.1	74.3	
EP035SF: Total Phenol by Segmented Flo	w Analyser							
Phenols (Total)		0.05	mg/L	<0.05	<0.10	0.11	<0.05	
FWI-EN/001: Groundwater Sampling - Dep	oth							
Depth		0.01	m	0.85				

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Project · Minnamurra Landfill



Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry) 14913 (Biology).

(WATER) EP002: Dissolved Organic Carbon (DOC) (WATER) EP005: Total Organic Carbon (TOC) (WATER) EK058G: Nitrate as N by Discrete Analyser (WATER) EK057G: Nitrite as N by Discrete Analyser

(WATER) EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) EG020F: Dissolved Metals by ICP-MS (WATER) ED093F: Dissolved Major Cations

(WATER) EN055: Ionic Balance

(WATER) ED045G: Chloride by Discrete Analyser (WATER) ED037P: Alkalinity by PC Titrator (WATER) EK040P: Fluoride by PC Titrator

(WATER) ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (WATER) EP035SF: Total Phenol by Segmented Flow Analyser

(WATER) EG020T: Total Metals by ICP-MS (WATER) ED093T: Total Major Cations