

CERTIFICATE OF ANALYSIS

Work Order : **EP2217395**
Client : **GASCOYNE WATER COOPERATIVE LTD**
Contact : Peter Butler
Address : 50 BOUNDARY ROAD PO BOX 5
 CARNARVON WESTERN AUSTRALIA, AUSTRALIA 6701

Telephone : ----
Project : ANNUAL SAMPLING 2022
Order number : PO1182
C-O-C number : ----
Sampler : KYLIE CHAPLIN
Site : Annual Groundwater
Quote number : EP/983/22
No. of samples received : 17
No. of samples analysed : 17

Page : 1 of 10
Laboratory : Environmental Division Perth
Contact : Customer Services EP
Address : 26 Rigali Way Wangara WA Australia 6065

Telephone : +61-8-9406 1301
Date Samples Received : 21-Dec-2022 11:25
Date Analysis Commenced : 20-Dec-2022
Issue Date : 04-Jan-2023 10:11



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Canhuang Ke	Inorganics Supervisor	Perth Inorganics, Wangara, WA
Jasmine Myintaye	Lab Technician	Perth Microbiology, Wangara, WA



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.

- MF = membrane filtration
- CFU = colony forming unit
- 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.
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- EG020: It is recognised that various total metal concentrations are less than dissolved for various samples. However, the difference is within experimental variation of the methods.
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- MW007 is ALS's internal code and is equivalent to AS4276.5.
- 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.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 1/10	B 2/10	B 3/10	B 18/10	B 19/10
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-001	EP2217395-002	EP2217395-003	EP2217395-004	EP2217395-005	
				Result	Result	Result	Result	Result	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.97	8.06	8.12	8.24	7.92	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	1050	1190	970	689	731	
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L	575	650	550	394	426	
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	103	93	135	115	111	
Total Alkalinity as CaCO3	----	1	mg/L	103	93	135	115	111	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	86	64	71	55	67	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	266	327	212	139	137	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	48	31	49	23	44	
Magnesium	7439-95-4	1	mg/L	23	21	22	12	18	
Sodium	7440-23-5	1	mg/L	130	174	113	100	78	
Potassium	7440-09-7	1	mg/L	12	17	10	14	8	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	214	164	213	107	184	
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.002	<0.001	0.005	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.001	<0.001	0.003	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.002	0.002	0.002	0.003	0.001	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.39	0.60	0.37	0.50	0.25	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG020T: Total Metals by ICP-MS									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 1/10	B 2/10	B 3/10	B 18/10	B 19/10
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-001	EP2217395-002	EP2217395-003	EP2217395-004	EP2217395-005	
				Result	Result	Result	Result	Result	
EG020T: Total Metals by ICP-MS - Continued									
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.002	<0.001	0.004	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.002	<0.001	0.004	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.002	0.003	0.002	0.003	0.002	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.30	0.55	0.32	0.46	0.21	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG052G: Silica by Discrete Analyser									
Reactive Silica	----	0.05	mg/L	43.1	64.3	62.5	52.6	63.8	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.4	0.4	0.3	0.4	0.2	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.55	0.76	1.14	0.84	0.86	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.55	0.76	1.14	0.84	0.86	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	11.4	12.4	10.2	7.36	7.48	
∅ Total Cations	----	0.01	meq/L	10.2	11.3	9.43	6.84	7.27	
∅ Ionic Balance	----	0.01	%	5.10	4.80	3.72	3.66	1.38	
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	<1	~1	~2	~2	<1	
<i>Escherichia coli</i>	----	1	CFU/100mL	<1	<1	<1	<1	<1	
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL	44	~1	12	~2	<1	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 20/10	B 21/10	B 11/13	B 2/14	B 3/14
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-006	EP2217395-007	EP2217395-008	EP2217395-009	EP2217395-010	
				Result	Result	Result	Result	Result	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	8.22	8.10	8.12	8.13	7.98	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	738	678	771	480	786	
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L	424	383	431	257	452	
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	120	94	109	129	112	
Total Alkalinity as CaCO3	----	1	mg/L	120	94	109	129	112	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	68	68	67	30	76	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	136	133	179	65	158	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	17	30	34	40	40	
Magnesium	7439-95-4	1	mg/L	8	14	17	12	17	
Sodium	7440-23-5	1	mg/L	129	88	98	44	95	
Potassium	7440-09-7	1	mg/L	10	9	12	7	8	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	75	132	155	149	170	
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Arsenic	7440-38-2	0.001	mg/L	0.008	0.003	<0.001	<0.001	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.003	0.003	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.004	0.002	0.002	<0.001	<0.001	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.62	0.31	0.33	0.20	0.24	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG020T: Total Metals by ICP-MS									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 20/10	B 21/10	B 11/13	B 2/14	B 3/14
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-006	EP2217395-007	EP2217395-008	EP2217395-009	EP2217395-010	
				Result	Result	Result	Result	Result	
EG020T: Total Metals by ICP-MS - Continued									
Aluminium	7429-90-5	0.01	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	
Arsenic	7440-38-2	0.001	mg/L	0.008	0.003	<0.001	<0.001	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.005	0.004	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.006	0.003	0.002	<0.001	0.001	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.57	0.28	0.29	0.17	0.22	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG052G: Silica by Discrete Analyser									
Reactive Silica	----	0.05	mg/L	60.0	52.2	41.7	30.6	48.5	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.9	0.5	0.4	0.1	0.2	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	1.05	0.99	1.05	2.82	0.68	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	1.05	0.99	1.05	2.82	0.68	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	7.65	7.04	8.62	5.04	8.28	
∅ Total Cations	----	0.01	meq/L	7.37	6.71	7.66	5.08	7.73	
∅ Ionic Balance	----	0.01	%	1.84	2.46	5.87	0.40	3.40	
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	630	490	<1	<1	<1	
<i>Escherichia coli</i>	----	1	CFU/100mL	<1	<1	<1	<1	<1	
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL	670	900	18	<1	<1	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 22/14	B 1/15	B 5/16	B78/15	B59/14
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-011	EP2217395-012	EP2217395-013	EP2217395-014	EP2217395-015	
				Result	Result	Result	Result	Result	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	8.02	8.02	8.16	8.34	8.20	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	881	926	677	754	1070	
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L	498	518	398	444	632	
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	4	<1	
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	106	82	94	160	117	
Total Alkalinity as CaCO3	----	1	mg/L	106	82	94	165	117	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	81	73	63	61	96	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	190	227	135	128	250	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	41	55	14	50	79	
Magnesium	7439-95-4	1	mg/L	22	20	12	25	28	
Sodium	7440-23-5	1	mg/L	107	111	105	70	95	
Potassium	7440-09-7	1	mg/L	10	9	15	12	10	
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L	193	220	84	228	312	
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.002	0.002	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.002	0.001	0.008	0.001	<0.001	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.25	0.21	0.48	0.23	0.20	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG020T: Total Metals by ICP-MS									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B 22/14	B 1/15	B 5/16	B78/15	B59/14
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	20-Dec-2022 00:00	
Compound	CAS Number	LOR	Unit	EP2217395-011	EP2217395-012	EP2217395-013	EP2217395-014	EP2217395-015	
				Result	Result	Result	Result	Result	
EG020T: Total Metals by ICP-MS - Continued									
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	0.06	
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.002	0.001	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Copper	7440-50-8	0.001	mg/L	<0.001	0.001	0.002	<0.001	<0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Molybdenum	7439-98-7	0.001	mg/L	0.002	0.002	0.012	0.001	<0.001	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.23	0.19	0.46	0.23	0.19	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG052G: Silica by Discrete Analyser									
Reactive Silica	----	0.05	mg/L	36.6	24.7	59.0	57.8	41.7	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.5	0.2	1.3	0.3	0.2	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.86	0.49	0.62	0.80	0.56	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.86	0.49	0.62	0.80	0.56	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	9.16	9.56	7.00	8.18	11.4	
∅ Total Cations	----	0.01	meq/L	8.77	9.45	6.64	7.90	10.6	
∅ Ionic Balance	----	0.01	%	2.22	0.59	2.65	1.70	3.42	
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	<1	<1	<1	<1	<1	
<i>Escherichia coli</i>	----	1	CFU/100mL	<1	<1	<1	<1	<1	
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL	<1	<1	<1	<1	~4	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Sample ID		B52/14	B66/14	----	----	----
		Sampling date / time		20-Dec-2022 00:00	20-Dec-2022 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EP2217395-016	EP2217395-017	-----	-----	-----
				Result	Result	----	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	8.21	8.14	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	832	1030	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	488	590	----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	107	94	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	107	94	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	63	75	----	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	181	256	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	52	55	----	----	----
Magnesium	7439-95-4	1	mg/L	22	32	----	----	----
Sodium	7440-23-5	1	mg/L	81	104	----	----	----
Potassium	7440-09-7	1	mg/L	8	12	----	----	----
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	220	269	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	----	----	----
Arsenic	7440-38-2	0.001	mg/L	0.002	0.001	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	----	----	----
Molybdenum	7439-98-7	0.001	mg/L	0.001	0.001	----	----	----
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	----	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	----	----	----
Boron	7440-42-8	0.05	mg/L	0.20	0.23	----	----	----
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	----	----	----
EG020T: Total Metals by ICP-MS								



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	B52/14	B66/14	----	----	----
Sampling date / time				20-Dec-2022 00:00	20-Dec-2022 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	EP2217395-016	EP2217395-017	-----	-----	-----	
				Result	Result	----	----	----	
EG020T: Total Metals by ICP-MS - Continued									
Aluminium	7429-90-5	0.01	mg/L	0.02	<0.01	----	----	----	
Arsenic	7440-38-2	0.001	mg/L	0.002	0.001	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	----	----	----	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----	
Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	----	----	----	
Molybdenum	7439-98-7	0.001	mg/L	<0.001	0.002	----	----	----	
Selenium	7782-49-2	0.01	mg/L	<0.01	<0.01	----	----	----	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	----	----	----	
Boron	7440-42-8	0.05	mg/L	0.19	0.22	----	----	----	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	----	----	----	
EG052G: Silica by Discrete Analyser									
Reactive Silica	----	0.05	mg/L	54.1	38.0	----	----	----	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.3	0.4	----	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	----	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.75	0.52	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.75	0.52	----	----	----	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	8.56	10.7	----	----	----	
∅ Total Cations	----	0.01	meq/L	8.13	10.2	----	----	----	
∅ Ionic Balance	----	0.01	%	2.53	2.17	----	----	----	
MW006: Faecal Coliforms & E.coli by MF									
Faecal Coliforms	----	1	CFU/100mL	<1	<1	----	----	----	
<i>Escherichia coli</i>	----	1	CFU/100mL	<1	<1	----	----	----	
MW007: Coliforms by MF									
Coliforms	----	1	CFU/100mL	<1	<1	----	----	----	