

WATER MONITORING REPORT (JULY TO SEPTEMBER 2025)
CONCRUSH FACILITY, TERALBA NSW 2284

Prepared for CONCRUSH PTY LTD

Prepared by RCA Australia

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OCTOBER 2025



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Contents

1.	INTRODUCTION	1
2.	SITE IDENTIFICATION AND DESCRIPTION.....	2
3.	MONITORING DETAILS	3
4.	MONITORING RESULTS	5
4.1	GROUNDWATER	5
4.2	SURFACE WATERS.....	7
4.3	DISCHARGE	10
5.	CONCLUSIONS AND RECOMMENDATIONS.....	11
6.	LIMITATIONS.....	11

APPENDIX A

FIELD SHEETS

APPENDIX B

LABORATORY REPORT SHEETS

16 October 2025

Concrush Pty Ltd
21 Racecourse Road
Teralba NSW 2284

Attention: Kevin Thompson
CC: Ross Lo Monaco

Geotechnical Engineering
Engineering Geology
Environmental Engineering
Hydrogeology
Construction Materials Testing
Environmental Monitoring
Noise & Vibration
Occupational Hygiene

WATER MONITORING REPORT (JULY TO SEPTEMBER 2025) CONCRUSH FACILITY, TERALBA

1. INTRODUCTION

This report presents the findings of water monitoring conducted at the Concrush Resource Recovery Facility in Teralba, NSW, during the July, August and September 2025.

The site was an operational facility over the entirety of the monitored area for the reporting period. Some construction is ongoing in the northern portion of the site for Sediment Basin 1 and the new weighbridge.

The site's environmental protection licence, EPL13351, specifies water monitoring be undertaken at the two (2) surface water discharge locations (refer to **Figure 2** in Section 3) weekly during discharge. The remainder of monitoring was initially outlined in plans submitted as part of the State Significant Development application for an increase to the facility's capacity (as referenced on the Concrush website¹). There has been updates to the documentation following the completion of twelve (12) months of operation, in March 2024, and at the time of writing the guidance document is considered to be the:

- Groundwater Management Plan (GMP, Ref [1]).
 - It is noted that the ongoing monitoring requirements for groundwater will be incorporated into the Operational Environmental Management Plan for the site following the finalisation of modification arrangements currently in progress.
- Discharge Verification and Management Report (DVMP, Ref [2]).

This report was undertaken at the request of Ross Lo Monaco of Concrush Pty Ltd.

¹ Concrush.com.au

2. SITE IDENTIFICATION AND DESCRIPTION

The site is described as 21 Racecourse Road, Teralba and part Lot 2, DP 220347. Additional site details are shown in **Table 1** and the site extent is shown in **Figure 1** below.

Table 1 Site Details

Current zoning²	E5 – Heavy Industrial.
Current use	Concrush resource recovery facility.
Size of site	Approximately 4.8ha.
Surrounding land use to the:	
North	Lot 1 DP220347. Industrial – storage yard for pre-cast concrete panels operated by others.
South	Part of Lot 2 DP220347. Industrial – scrap metal recycling yard operated by others.
East	Racecourse Road and then Cockle Creek.
West	Main Northern Rail line and then wetlands.
Nearest sensitive receptor (human health)	Residential housing, located approximately 360m southeast across Cockle Creek.
Nearest sensitive receptor (environmental)	Cockle Creek, located approximately 35m east and wetland approximately 30m west.



Figure 1 Project Site Location and Layout (aerial as of 25 May 2025)

² <https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

3. MONITORING DETAILS

The site's water management scheme comprises:

- Collection of runoff and seepage from the Green Waste catchment, anticipated to potentially contain nutrients, in the Leachate Pond (LP) which was lined with a flexible membrane liner with a permeability of less than 10^{-14} m/s to prevent potential contamination of groundwater.
- Treatment of nutrients via a constructed Wetland (WL) which has also been lined and populated with appropriate plants to maximise the removal of nutrients. Water is pumped into the WL from the LP.
- Collection of runoff from the remainder of the site into Sediment Dam 1 (SED1) and Sediment Dam 2 (SED2). Water from the Wetland discharges into SED2.

Concrush aims to re-use all surface water on site such that none is discharged however in high rainfall events or periods, some discharge may occur from one or both of the Sediment Dams into the un-named waterway along the western border of the site. This waterway runs to the north and Cockle Creek at the northern end of the site and to the south, wetlands and eventually Cockle Creek at the southern end of the site; the location at which the flow direction changes has not been identified and may vary with seasonal conditions.

A total of eight (8) monitoring locations are situated on-site comprising four (4) surface water locations (LP, WL, SED1 and SED2), two (2) discharge points (SW1 and SW2) and two (2) groundwater locations (GW1 and GW3). Additionally, two (2) off-site background surface water locations (BSW1 and BSW2) are included in the monitoring programme. These locations are shown in **Figure 2**. It is noted that, due to significant vegetation growth to the south of the site, that the sampling undertaken for BSW2 has been moved to within approximately ten (10) metres of the location of SW2, estimated to be thirty (35) metres to the north of the initial sampling location.



Figure 2 Water sampling locations (aerial as of 25 May 2025)

Monitoring is undertaken on a monthly basis, typically the last working day of the month however adjusted for the compliance of dust monitoring undertaken at the site, and comprises the recording of depths of water, field readings using a calibrated water quality monitor and the collection of samples for chemical analyses as detailed in **Table 2** below.

Table 2 *Analytical Scope*

Location	Monitored Parameters
GW1	- Depth to groundwater. - Field readings. - Nutrients (ammonia, nitrate, nitrite, total phosphorous). - Hydrocarbons⁴ once a quarter.
GW3	
LP	- Field observation of water depth at LP. - Field readings. - pH, electrical conductivity (EC), total suspended solids (TSS). - Nutrients (ammonia, nitrate, nitrite, total Kjeldahl nitrogen, total phosphorous).
WL	
SED1	- Field readings. - pH, EC, TSS. - Dissolved metals³. - Hydrocarbons⁴. - Nutrients (ammonia, nitrate, nitrite, total Kjeldahl nitrogen, total phosphorous).
SED2	
BSW1	
BSW2	

In the event of discharge from one or both of the Sediment Dams, sampling is undertaken at the discharge points and the associated background surface water locations. Analyses comprise field readings, general water quality, dissolved metals, hydrocarbons and nutrients.

Field sheets are presented in **Appendix A** and laboratory reports are included in **Appendix B**.

Results of the water monitoring are compared to criteria as specified in the GMP (Ref [1]) and / or the DVMP (Ref [2]) on a monthly basis and presented to Concrush in a table and graphs.

³ Aluminium, arsenic, cadmium, chromium, hexavalent chromium, cobalt, copper, lead, nickel, selenium, zinc, boron. Samples are 0.45µm field filtered prior to preservation for metals analyses.

⁴ Benzene, toluene, ethylbenzene, xylene, naphthalene (BTEXN), total recoverable hydrocarbons (TRH) and polycyclic aromatic hydrocarbons (PAH).

4. MONITORING RESULTS

4.1 GROUNDWATER

Results of the groundwater monitoring undertaken in the quarter compared to the ecological criteria for fresh and marine waters (Ref [3]) are presented in **Table 3** below. In summary:

- The depth to groundwater varied between July and September at both wells. It is noted that at GW1, the depth was measured from ground level, whereas at GW3, the measurements included the length of the standpipe protruding above ground. Historical assessments indicate that the groundwater flow direction is from the western boundary of the site toward the eastern boundary.
- The temperature of the groundwater measured by the portable meter at the field slightly varied over the monitoring period however not noticeably between the wells.
- The pH was generally slightly alkaline at GW1 whereas it was generally neutral to slightly acidic at GW3.
- The EC obtained from the portable meter in GW1 was within the range (<1 mS/cm) indicative of fresh water whereas the EC in GW3 was considered indicative of (slightly) brackish water.
- The turbidity of the groundwater obtained from the portable meter at the field was high at both wells (noting that the meter either provides a >1000 or 0 reading when the turbidity is too high to be quantified). A non-return foot valve was used to collect the water samples, as alternative methods were not feasible due to kinks in the pipes. RCA personnel took care to avoid contact between the tip of the foot valve and the sediment at the base of the wells however it is considered that the sampling methodology may have increased the turbidity.
- The dissolved oxygen in both wells obtained from the portable meter at the field was low, indicative of anoxic conditions. It is noted that the sampling method can cause higher than representative dissolved oxygen levels.
- Ammonia (as N) and total phosphorus (as P) consistently exceeded the relevant ecological criteria however align with historical data. It is noted that the site is located in the Cockle Creek Estuary catchment that forms part of the broader Lake Macquarie catchment area, an ecosystem known for natural nutrient inflows that can contribute to higher concentrations of nitrogen and phosphorus.
- Nitrate (as N) and NO_x (as N) were either non-detected or at low concentrations below the relevant criteria, consistent with historical data. Low dissolved oxygen levels are considered likely to inhibit the activity of nitrifying bacteria responsible for converting ammonia to nitrite and subsequently to nitrate.
- BTEXN compounds were not detected, consistent with historical data.
- TRH was not detected in either well, which is generally consistent with historical data. It is noted that TRH >C₆–C₁₀ (volatile compounds) was detected at GW3 during the May sampling round last quarter however was considered likely to represent cross contamination from the water quality meter equipment. Contingency sampling was conducted on 12 June 2025 and indicated the absence of any concentration; therefore, the May result was not considered representative of the groundwater quality.
- PAH were non-detected, consistent with historical data.

Table 3 *Groundwater Analysis Results.*

Analysis	Aquatic Ecosystem Guideline ^A		GW1			GW3		
Date Sampled	95% Fresh	95% Marine	29/07	29/08	30/09	29/07	29/08	30/09
Depth to Groundwater	--	--	2.17	1.85	2.19	3.53	3.23	3.34
Temperature (°C)*	--	--	17.56	16.75	19.13	18.22	18.65	22.09
pH (pH units)*	--	--	7.49	7.4	7.30	6.53	6.77	6.84
EC (mS/cm)*	--	--	1.05	0.527	1.15	1.75	1.55	1.50
Turbidity (Nephelometric Turbidity unit)*	--	--	884	201	0	183	0	0
Dissolved Oxygen*	--	--	2.51	1.31	1.19	3.44	3.22	3.12
Ammonia	0.9	0.91	<u>2.0</u>	<u>1.0</u>	<u>1.8</u>	<u>2.8</u>	<u>1.6</u>	<u>2.3</u>
Nitrate	2.4		<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
NO _x	0.04		0.005	0.007	<0.005	<0.01	<0.005	<0.005
Total Phosphorus	0.025		0.3	0.4	0.4	0.09	0.3	0.3
Benzene	0.95	0.5	--	<0.001	--	--	<0.001	--
Toluene	0.18		--	<0.001	--	--	<0.001	--
Ethylbenzene	0.08	0.005	--	<0.001	--	--	<0.001	--
Meta- and para-Xylene	0.275		--	<0.002	--	--	<0.002	--
Ortho-Xylene	0.35		--	<0.001	--	--	<0.001	--
TRH C ₆ -C ₄₀	0.007		--	<0.26	--	--	<0.26	--
Naphthalene	0.016	0.07	--	<0.0001	--	--	<0.0001	--
Phenanthrene ^B	0.002	0.002	--	<0.0001	--	--	<0.0001	--
Anthracene ^B	0.0004	0.0004	--	<0.0001	--	--	<0.0001	--
Fluoranthene ^B	0.0014	0.0014	--	<0.0001	--	--	<0.0001	--
Benzo(a)pyrene ^B	0.0002	0.0002	--	<0.0001	--	--	<0.0001	--

All units in mg/L except where otherwise noted

^A Criteria from ANZG (Ref [3]) with the exception of NO_x and phosphorus for Lowland Rivers (coastal environment where available)Results shown in **bold** more than 95% freshwater guidelines/ the lowland (coastal) river guidelines

Data marked with an asterisk (*) were obtained using a portable multiparameter meter (Horiba).

-- indicates no guidelines applicable and / or analyses not required during the specific month

^B Bio-accumulative Compounds. Results with '<' below the detection limitResults shown in underline in excess of 95% marine water guidelines

4.2 SURFACE WATERS

Results of the surface water monitoring undertaken in the quarter compared to the criteria (Ref [2]) are presented in **Table 5** and **Table 4** below. No active flow was observed at BSW1 in July 2025; only stagnant water was present, and as a result, no samples were collected.

In summary:

- pH levels remained within the trigger range at LP and WL throughout the quarter. In contrast, pH consistently exceeded the trigger range at both SED1 and SED2, indicating alkaline conditions. pH levels at background sites BSW1 and BSW2 were within the trigger range in all rounds conducted throughout the quarter.
- No EC values exceeded the trigger value at any location throughout the monitoring period.
- TSS were considered low to moderate in all samples.
- Ammonia concentrations were above the trigger value at WL and LP throughout the quarter, except for the last two (2) monitoring events in August and September at LP. Elevated concentrations were recorded during all events at SED1, and during one (1) event each at SED2 and at the background water location BSW2.
 - It is noted that plant matter was difficult to exclude from the WP samples, and any elevated ammonia concentrations observed may, at least in part, reflect this material rather than the actual concentrations in the water.
- Nitrate and NO_x were either undetected or detected at low concentrations below the trigger values at LP and WL during this quarter, whereas, these parameters exceeded trigger values at both SED1 and SED2, with the exception of the final monitoring round in September, when they were either undetected or detected at low concentrations in the background waters.
- Total nitrogen and total phosphorus consistently exceeded the trigger values at all monitoring locations except for total phosphorus at SED1 in July and August, and total nitrogen at BSW2 in August; the most significant nitrogen compound was total Kjeldahl nitrogen.
- Aluminium exceeded the trigger value in all monitoring events at both SED1 and SED2, while it was either non detected or detected at low concentrations within the background waters in all rounds conducted throughout the quarter. Chromium was below the trigger value at all locations throughout the monitoring period except for two (2) events in July and August at SED1 and one (1) event at SED2 in July. Hexavalent chromium consistently exceeded the trigger value in the Sediment Dams during the monitoring rounds but was not detected in the background waters in any event. The remaining metals were either non-detected or detected at low concentrations well below the respective trigger values at all locations.
- There were no detected hydrocarbons at all monitoring locations.

Table 4 *Surface Water Analysis Results – Green Waste Catchment*

Analyte	Trigger Values	LP			WL		
Date Sampled		29/07	29/08	30/09	29/07	29/08	30/09
pH (pH units)	6.5-8.5	8.0	8.4	8.3	7.5	7.0	6.9
EC (μ S/cm)	125-2200	1700	1200	1900	1800	1100	1200
TSS	NA	27	32	94	23	21	250
Ammonia	0.0264	0.054	0.02	<0.005	0.14	0.54	0.38
Nitrate	0.44	<0.005	<0.005	<0.005	0.02	<0.005	0.01
NO _x	0.491	0.01	<0.005	<0.005	0.03	<0.005	0.02
Total Nitrogen	0.645	7.8	3.5	6.1	7.3	3.4	3.1
Total Phosphorus	0.0168	2.3	1.2	2.9	2.5	1.8	2.3

All units in mg/L except where otherwise noted

NA - not applicable

Results shown in bold in excess of the trigger values (Ref [2])

Results with '<' are below the detection limit

Table 5 Surface Water Analysis Results – Remainder of Site

Analyte	Trigger Values	SED1			BSW1			SED2			BSW2		
Date Sampled		29/07	29/08	30/09	29/07	29/08	30/09	29/07	29/08	30/09	29/07	29/08	30/09
pH (pH units)	6.5-8.0	9.3	10.4	9.2	Stagnant Water – No sample	7.4	7.6	9.9	9.6	9.6	7.6	7.3	7.3
Electrical Conductivity (µS/cm)	125-2200	440	470	640		950	880	510	420	430	1000	890	890
Total Suspended Solids	NA	12	<5	61		22	170	29	23	50	<5	7	14
Ammonia	0.0264	0.067	0.12	0.11		0.01	<0.005	0.007	0.34	0.008	0.01	0.05	0.02
Nitrate	0.44	0.8	0.49	0.073		0.44	<0.005	1.3	0.56	<0.005	<0.005	0.007	0.052
NO _x	0.491	0.94	2.0	0.22		0.45	<0.005	1.4	0.85	0.02	0.005	0.009	0.054
Total Nitrogen	0.645	1.2	2.2	1.1		1.0	1.2	2.2	1.3	0.9	0.8	0.6	1.0
Total Phosphorus	0.0168	<0.05	<0.05	0.06		0.1	0.2	0.1	0.1	0.2	0.05	0.08	0.1
Aluminium	0.08	0.12	1.4	0.24		0.02	0.02	0.14	0.21	0.24	<0.01	0.02	<0.01
Arsenic	0.094	0.004	0.002	0.008		0.001	0.004	0.011	0.008	0.011	0.002	0.001	0.004
Cadmium	0.0004	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	0.02	0.028	0.031	0.008		<0.001	<0.001	0.033	0.015	0.008	<0.001	<0.001	<0.001
Hexavalent Chromium	0.0033	0.02	0.03	0.008		<0.005	<0.005	0.02	0.02	0.01	<0.005	<0.005	<0.005
Cobalt	0.015	<0.001	<0.001	<0.001		<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	0.02	0.009	0.012	0.009		0.004	0.003	0.017	0.007	0.007	0.003	0.003	<0.001
Lead	0.0056	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	0.013	0.002	<0.001	0.003		0.004	0.003	0.003	0.001	0.002	0.002	0.002	<0.001
Selenium	0.018	<0.001	<0.001	0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	0.015	0.006	0.003	0.004		0.022	0.012	0.007	0.006	0.006	0.008	0.01	0.003
Boron	0.68	0.08	0.03	0.1		0.1	0.2	0.07	0.05	0.06	0.1	0.09	0.1
TRH C ₆ -C ₄₀	10	<0.26	<0.26	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26

All units in mg/L except where otherwise noted, Results shown in **bold** are in excess of the management triggers (Ref [2]), NA – Not applicable, Results with '<' are below the detection limit

4.3 DISCHARGE

The Bureau of Meteorology weather station at Cooranbong recorded a total rainfall of 391.2 mm during the monitoring period, distributed as 85.6 mm in July, 240.6 mm in August, and 65 mm in September. **Figure 3** below illustrates these monthly totals, along with the cumulative rainfall for each month.

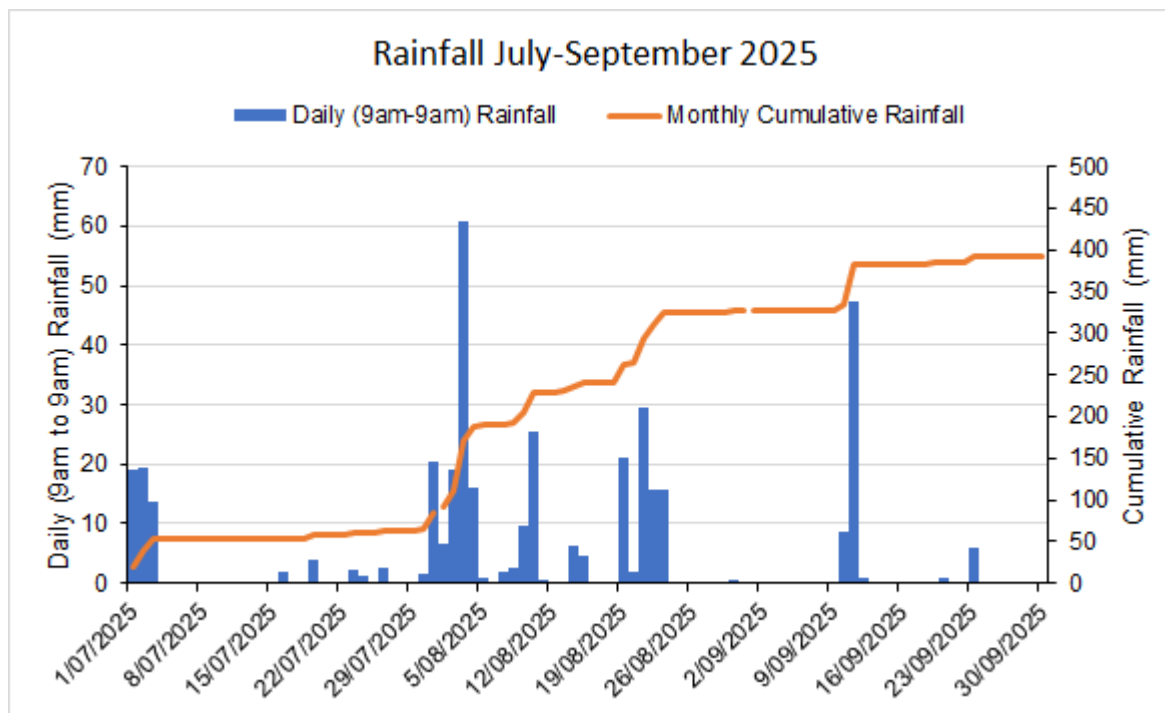


Figure 3 Rainfall for the Monitoring Period (sourced from Bureau of Meteorology weather station at Cooranbong)

5. CONCLUSIONS AND RECOMMENDATIONS

Water monitoring was undertaken at the Concrush Resource Recovery Facility through the July-September 2025 quarter in general compliance with the requirements of the EPL and relevant management plans (Ref [1] and Ref [2]). The absence of samples in July at BSW1 due to stagnant water is not considered to represent non-compliance.

The following conclusions have been made with respect to this quarter's monitoring events:

- Elevated concentrations of ammonia and phosphorous were identified in groundwater exceeding their respective ecological guidelines (Ref [2]) at both GW1 and GW3. The guidelines are not directly relevant to groundwater and rather are relevant to the receiving water, considered to be Cockle Creek. The quarter's results are consistent with the historical results, including those prior to the commencement of operations in the southern portion of the site, and the results are not considered to indicate any potential impact from the LP or SED2, and are rather considered to be representative of the groundwater characteristics within former wetlands.
- There are no indications of hydrocarbon contamination in the groundwater.
- The pH results at LP and WL were within the trigger range during this quarter.
- Nutrient concentrations at LP and WL exceeded the trigger values in all the sampling rounds; the dominant form of nitrogen was organic nitrogen. It is noted that some vegetation in the WL samples may be impacting the nitrogen results.
- The pH results for both Sediment Dams were more alkaline than the trigger range in all sampling rounds; within the background waters, pH values remained within the trigger range at both locations in all monitoring rounds.
- Nutrient concentrations at both Sediment Dams exceeded their respective trigger values throughout the quarter except for total phosphorus at SED1 in the July and August monitoring rounds. The available data for the background waters indicated concentrations exceeding the trigger values except for total nitrogen at BSW2 in August, with comparable levels observed. There were no discharge events during the quarter such that the quality of water within the Sediment Dams are not considered to have potentially impacted the background waters.
- Exceedances of aluminium and hexavalent chromium trigger values were observed in the Sediment Dams; however, these exceedances were not identified in the available background water data. Chromium exceeded the trigger value in the July and August monitoring rounds at SED1, and July round at SED2. All other metals were either not detected or detected at low concentrations below their respective trigger values.

Water monitoring will continue during the next quarter in accordance with the GMP (Ref [1]) and the DVMP (Ref [2]). The next quarterly report will be prepared after the completion of the December 2025 sampling.

6. LIMITATIONS

This report has been prepared for Concrush Pty Ltd in accordance with an agreement with RCA Australia (RCA). The services performed by RCA have been conducted in a manner consistent with that generally exercised by members of its profession and consulting practice.

This report has been prepared for the sole use of Concrush Pty Ltd. The report may not contain sufficient information for purposes of other uses or for parties other than Concrush Pty Ltd. This report shall only be presented in full and may not be used to support objectives other than those stated in the report without written permission from RCA Australia.

The information in this report is considered accurate at the date of issue with regard to the current conditions of the site. Conditions can vary across any site that cannot be explicitly defined by investigation. Please contact the undersigned if you have any queries.

Environmental conditions including contaminant concentrations can change in a limited period of time. This should be considered if the report is used following a significant period of time after the date of issue.

Yours faithfully

RCA AUSTRALIA



Muhammad Hayyat
Environmental Engineer
MEng (Env), Beng

REFERENCES

- [1] RCA Australia, *Groundwater Management Plan, Expansion of the Concrush Resource Recovery Facility, Teralba*, RCA ref 13589-805/1, September 2020.
- [2] ENGENY, *Concrush Pty Ltd, Discharge Verification and Mitigation Report*, February 2024.
- [3] ANZG, Australian and New Zealand Guidelines for Fresh and Marine Water Quality Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia., August 2018. Available at www.waterquality.gov.au/anz-guidelines.

Appendix A

Field Sheets

ENGINEERING FIELD SHEET

WATER SAMPLING RECORD

CLIENT: Concrush Pty Ltd
PROJECT: Water Quality Monitoring
LOCATION: 21 Racecourse Road, Teralba
PERSONNEL: AH

DATE: 29.7.25
PROJECT No: 13589a
CLIENT REF: _____

WATER METER USED: Horiba

DATE & TYPE OF LAST CALIBRATION (1PT OR FULL): Full – refer to Environment Drive for Calibration Certified

METHOD OF SAMPLING: Foot valve for Groundwater, direct for Ponds, Wetland, Basins and Surface Water

PRESERVATION & STORAGE (TICK): Chilled (<4°C) ☐

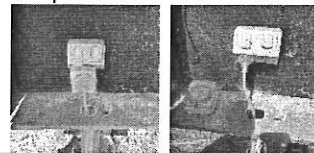
TESTS REQUIRED: Groundwater: Nutrients each month, TRH, PAH and BTEX every 3 months.
 Leachate Pond and Wetland: , EC, TSS and Nutrients every month.
 Sediment Basins: pH, EC, TSS, metals (dissolved) and TRH every month.
 Spillways: , EC, TSS, metals (dissolved) and TRH when discharging.
 Background Surface water: pH, EC, TSS, metals (dissolved) and TRH every month.

Get Key for side gate from weighbridge to get to SW2

OTHER DETAILS: Refer to Duplicate Register – name duplicate QAMonthYear.

BORE OR LOCATION ID: BH3 (Eastern end – adjacent Racecourse Road) Label bottles 'GW3'						
TIME: <u>12.05</u>		TO <u>12.30</u>				
BORE DEPTH: <u>5.09m</u>			HEIGHT ABOVE GROUND LEVEL: <u>0.85m</u>			
DEPTH TO AQUIFER: <u>3.53m</u>			VOLUME PURGED: <u>4l</u>			
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ <u>12L</u>	<u>6.58</u>	<u>1.75</u>	<u>60</u>	<u>4.9</u>	<u>17.67</u>	<u>0.089</u>
2/ <u>12L</u>	<u>6.53</u>	<u>1.75</u>	<u>183</u>	<u>3.44</u>	<u>18.22</u>	<u>0.089</u>
3/						
4/						
5/						
6/						
Sample Appearance: <u>Pale grey, slightly turbid, no odour</u>						
Duplicate Identification and Other Remarks: _____						

BORE OR LOCATION ID: Leachate Pond (Eastern end – adjacent Racecourse Road). Sample at outlet to Wetland Pond. Label bottles 'LP'						
TIME: <u>11.50</u>		TO <u>12.00</u>				
<i>If discharge not running, remove the cord from time and put directly into power. At the completion of sampling, return the time to the system.</i>						
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	<u>8.49</u>	<u>1.85</u>	<u>45.2</u>	<u>7.35</u>	<u>14.48</u>	<u>0.093</u>
2/						
3/						
4/						
5/						
6/						
Sample Appearance: <u>Pale yellow, clear, no odour</u>						
Duplicate Identification and Other Remarks: <u>pump is operational</u>						



BORE OR LOCATION ID: Wetland (Eastern end – adjacent Racecourse Road). Label bottles 'WL'
TIME: 11:05 TO 11:20

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	7.64	1.9	37.7	4.15	14.32	0.096
2/						
3/						
4/						
5/						
6/						

Sample Appearance: Pale yellow, clear, no odour

Duplicate Identification and Other Remarks:

No algae in samples as previously

BORE OR LOCATION ID: Sediment Dam 2 (South west corner – adjacent railway). Label bottles 'Sed2'
TIME: 12:40 TO 13:30

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	10.62	0.513	49.7	10.31	15.43	15.41
2/						
3/						
4/						
5/						
6/						

Sample Appearance: Pale grey, clear, no odour

Duplicate Identification and Other Remarks:

QA072025 collected here

BORE OR LOCATION ID: Discharge of Sediment 2. Label bottles 'DIS-Sed2'

TIME: TO

WATCH for SNAKES

May have to get sample from outside fence

NO DISCHARGE - NO SAMPLE

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance:

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: SW2 (Western end, south of site boundary, down ladder). Label bottles 'SW2'

TIME: 14:20 TO 14:40

WATCH for SNAKES

Be careful – poor footing

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	7.91	1.08	1.4	3.09	15.65	0.053
2/						
3/						
4/						
5/						
6/						

Sample Appearance: Clear, no odour

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: BH1 (Western end – adjacent Railway) Label bottles 'GW1'

TIME: 12:40 TO 14:10

BORE DEPTH: 4.77 m **HEIGHT ABOVE GROUND LEVEL:** 0.0 m

DEPTH TO AQUIFER: 2.17 m **VOLUME PURGED:** 4L

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ +2L	7.46	1.07	559	1.36	17.34	0.053
2/ +1L	7.49	1.05	71000	2.37	17.54	0.052
3/ +1L	7.49	1.05	884	2.51	17.56	0.051
4/						
5/						
6/						

Sample Appearance: Dark grey, turbid, sulphide odour

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Sediment Dam 1 (North west corner – adjacent railway). Label bottles 'Sed1'

TIME: 14:50 TO 15:10

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	8.83	0.461	32.7	10.22	15.77	0.022
2/						
3/						
4/						
5/						
6/						

Sample Appearance: Clear, no odour

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Discharge of Sediment 1. Label bottles 'DIS-Sed1' NO DISCHARGE
TIME: _____ **TO** _____
BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** NO SAMPLES
DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____
RESULTS OF WATER QUALITY CHECK: _____

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance: _____
Duplicate Identification and Other Remarks: _____

BORE OR LOCATION ID: SW1 (Western side of Racecourse Road, north of rail access drive). Label bottles 'SW' DRY
TIME: _____ **TO** _____
BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** NO SAMPLES
DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____
RESULTS OF WATER QUALITY CHECK: _____

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance: _____
Duplicate Identification and Other Remarks: _____

ENGINEERING FIELD SHEET WATER SAMPLING RECORD

CLIENT: Concrush Pty Ltd
PROJECT: Water Quality Monitoring
LOCATION: 21 Racecourse Road, Teralba
PERSONNEL: DB

DATE: 29-8-25
PROJECT No: 13589a
CLIENT REF: _____

WATER METER USED: Horiba

DATE & TYPE OF LAST CALIBRATION (1PT OR FULL): Full – refer to Environment Drive for Calibration Certified

METHOD OF SAMPLING: Foot valve for Groundwater, direct for Ponds, Wetland, Basins and Surface Water

PRESERVATION & STORAGE (TICK): Chilled (<4°C) ☐

TESTS REQUIRED: Groundwater: Nutrients each month, TRH, PAH and BTEX every 3 months.
 Leachate Pond and Wetland: , EC, TSS and Nutrients every month.
 Sediment Basins: pH, EC, TSS, metals (dissolved) and TRH every month.
 Spillways: , EC, TSS, metals (dissolved) and TRH when discharging.
 Background Surface water: pH, EC, TSS, metals (dissolved) and TRH every month.

Get Key for side gate from weighbridge to get to SW2

OTHER DETAILS: Refer to Duplicate Register – name duplicate QAMonthYear.

BORE OR LOCATION ID: BH3 (Eastern end – adjacent Racecourse Road) Label bottles 'GW3'						
TIME: <u>1.10</u>	TO _____					
BORE DEPTH: <u>5.09</u>	HEIGHT ABOVE GROUND LEVEL: <u>0.85</u>					
DEPTH TO AQUIFER: <u>3.23</u>	VOLUME PURGED: _____					
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ 1L	6.84	1.51	1000	2.22	18.81	0.076
2/ 2L	6.76	1.54	0	1.42	18.61	0.077
3/ 1L	6.77	1.55	0	3.22	18.65	0.078
4/						
5/						
6/						
Sample Appearance: <u>pale yellow coloured water, slightly turbid,</u> Duplicate Identification and Other Remarks: _____						

BORE OR LOCATION ID: Leachate Pond (Eastern end – adjacent Racecourse Road). Sample at outlet to Wetland Pond. Label bottles 'LP'						
TIME: <u>12.55</u>	TO <u>1.10 PM</u>					
If discharge not running, remove the cord from time and put directly into power. At the completion of sampling, return the time to the system.						
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	8.83	1.28	33.5	6.59	18.08	0.063
2/	8.88	1.25	26.5	7.49	17.22	0.062
3/						
4/						
5/						
6/						
Sample Appearance: <u>water brown to red</u> Duplicate Identification and Other Remarks: <u>PURPES OPERATING</u>						



BORE OR LOCATION ID: Wetland (Eastern end – adjacent Racecourse Road). Label bottles 'WL'
TIME: 12.30 TO 12.40

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	7.34	1.14	0.0	1.61	16.39	0.056
2/	7.39	1.14	1.4	2.12	15.42	0.056
3/						
4/						
5/						
6/						

Sample Appearance: clear brown hazy water no odor
Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Sediment Dam 2 (Southwest corner – adjacent railway). Label bottles 'Sed2'
TIME: 10am TO 10.30am

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/10.03	7.19	0.483	36.4	6.77	17.51	0.023
2/10.05	7.17	0.456	28.4	6.88	16.84	0.022
3/						
4/						
5/						
6/						

Sample Appearance: clear water slight brown haze
Duplicate Identification and Other Remarks: QA of 2025 take here

BORE OR LOCATION ID: Surface Water 2. Label bottles 'SW2' – Previously known as 'SID-SED2'
TIME: TO

WATCH for SNAKES

May have to get sample from outside fence

dry no discharge

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance:
Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: BSW2 (Western end, south of site boundary, down ladder). Label bottles 'BSW2' – Previously known as 'SW2'

TIME: 11:35m **TO** 11:55

WATCH for SNAKES
Be careful – poor footing

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	7.18	0.920	26.1	9.38	18.47	0.046
2/	7.16	0.971	10.3	4.89	18.40	0.048
3/						
4/						
5/						
6/						

Sample Appearance: Clear no odour

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: BH1 (Western end – adjacent Railway) Label bottles 'GW1'

TIME: 10:40m **TO** 11:10m

BORE DEPTH: 4.77 **HEIGHT ABOVE GROUND LEVEL:** 0

DEPTH TO AQUIFER: 1.852 **VOLUME PURGED:** 3L

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ 10.50	7.28	0.509	66.9	3.31	16.99	0.024
2/ 10.52	7.26	0.521	19.7	9.32	16.84	0.025
3/ 10.56	7.24	0.529	20.1	1.24	16.75	0.025
4/						
5/						
6/						

Sample Appearance: Dark grey turbid, slight sulphur odour

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Sediment Dam 1 (North west corner – adjacent railway). Label bottles 'Sed1'

TIME: 9m **TO** 9:20

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	7.22	0.442	14.3	4.13	15.99	0.021
2/	7.32	0.452	11.6	9.91	15.70	0.022
3/						
4/						
5/						
6/						

Sample Appearance: Clear no odour water level 1.5m

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Surface Water 1. Label bottles 'SW1' – Previously known as 'DIS-SED1'

TIME: _____ **TO** _____

BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** _____

DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____

RESULTS OF WATER QUALITY CHECK: *No data taken*

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance: _____

Duplicate Identification and Other Remarks: _____

BORE OR LOCATION ID: BSW1 (Western side of Racecourse Road, north of rail access drive). Label bottles 'BSW1' – Previously known as 'SW1'

TIME: *2115* **TO** *2300*

BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** _____

DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____

RESULTS OF WATER QUALITY CHECK: _____

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	<i>7.43</i>	<i>7.17 / 1.19</i>	<i>8.9</i>	<i>11.0</i>	<i>17.95</i>	<i>0.059</i>
2/	<i>7.45</i>					
3/	<i>7.54</i>					
4/				<i>8.40</i>	<i>16.90</i>	<i>0.050</i>
5/	<i>7.68</i>	<i>1.02</i>	<i>0.8</i>			
6/						

Sample Appearance: *Water clear, no smell*

Duplicate Identification and Other Remarks: _____

ENGINEERING FIELD SHEET WATER SAMPLING RECORD

CLIENT: Concrush Pty Ltd
PROJECT: Water Quality Monitoring
LOCATION: 21 Racecourse Road, Teralba
PERSONNEL: Damien

DATE: 30/9/20
PROJECT No: 13589a
CLIENT REF:

WATER METER USED: Horiba

DATE & TYPE OF LAST CALIBRATION (1PT OR FULL): Full – refer to Environment Drive for Calibration Certified

METHOD OF SAMPLING: Foot valve for Groundwater, direct for Ponds, Wetland, Basins and Surface Water

PRESERVATION & STORAGE (TICK): Chilled (<4°C) ☐

Get Key for side gate from weighbridge to get to SW2

TESTS REQUIRED: Groundwater: Nutrients each month, TRH, PAH and BTEX every 3 months.
 Leachate Pond and Wetland: , EC, TSS and Nutrients every month.
 Sediment Basins: pH, EC, TSS, metals (dissolved) and TRH every month.
 Spillways: , EC, TSS, metals (dissolved) and TRH when discharging.
 Background Surface water: pH, EC, TSS, metals (dissolved) and TRH every month.

OTHER DETAILS: Refer to Duplicate Register – name duplicate QAMonthYear.

BORE OR LOCATION ID: BH3 (Eastern end – adjacent Racecourse Road) Label bottles 'GW3'						
TIME: 12:20pm TO 12:40pm						
BORE DEPTH: 5.09m			HEIGHT ABOVE GROUND LEVEL: 0.85m			
DEPTH TO AQUIFER: 3.345m			VOLUME PURGED: 3L			
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	12:34 6.64	1.73	0	2.52	25.55	0.087
2/	12:36 7.05	1.59	0	2.47	23.97	0.080
3/	12:38 6.84	1.50	0	3.12	22.09	0.080
4/						
5/						
6/						
Sample Appearance: BROWN fizzy water some red in night, no odour Duplicate Identification and Other Remarks: - slight turbidity						

BORE OR LOCATION ID: Leachate Pond (Eastern end – adjacent Racecourse Road). Sample at outlet to Wetland Pond. Label bottles 'LP'						
TIME: 12:50pm TO 1:15pm						
If discharge not running, remove the cord from time and put directly into power. At the completion of sampling, return the time to the system.						
RESULTS OF WATER QUALITY CHECK:						
Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	12:55 7.90	2.11	2.78	5.53	25.3	0.107
2/	12:57 7.84	2.08	2.18	5.45	25.9	0.106
3/						
4/						
5/						
6/						
Sample Appearance: BROWN fizzy water no odour Duplicate Identification and Other Remarks: PUMP 01024kg/si QA 0925 + key here						

BORE OR LOCATION ID: Wetland (Eastern end – adjacent Racecourse Road). Label bottles 'WL'

TIME: 12 PM TO 12:15 PM

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/12.17	6.76	1.30	57.2	1.76	20.94	0.665
2/12.103	6.86	1.30	77.2	2.33	20.58	0.665
3/						
4/						
5/						
6/						

Sample Appearance: Brown hazy water no odor

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Sediment Dam 2 (Southwest corner – adjacent railway). Label bottles 'Sed2'

TIME: 9:50 am TO 10:15 am

RESULTS OF WATER QUALITY CHECK:

Water clear with slight brown to see nodules

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/9.57	3.74	0.424	117	6.96	23.57	0.020
2/10.01	5.05	0.438	116	7.40	22.72	0.021
3/10.02	5.59	0.431	108	7.85	22.51	0.021
4/10.05	5.79	0.430	106	6.69	22.83	0.021
5/						
6/						

Sample Appearance:

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Surface Water 2. Label bottles 'SW2' – Previously known as 'SID-SED2'

TIME: TO WATCH for SNAKES

May have to get sample from outside fence

RESULTS OF WATER QUALITY CHECK:

No water

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance:

Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: BSW2 (Western end, south of site boundary, down ladder). Label bottles 'BSW2' – Previously known as 'SW2'
TIME: 10.55am **TO** 10.25am **WATCH for SNAKES**
 Be careful – poor footing

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ 11.02	4.58	0.919	81.0	3.06	22.99	0.045
2/ 11.04	5.50	0.927	235	3.11	22.06	0.046
3/ 11.06	5.95	0.924	21.0	2.82	21.98	0.045
4/						
5/						
6/						

Sample Appearance: clear water fishy brown taste no odor
Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: BH1 (Western end – adjacent Railway) Label bottles 'GW1'

TIME: 10.21am **TO** 10.45am
BORE DEPTH: 4.77m **HEIGHT ABOVE GROUND LEVEL:** 0
DEPTH TO AQUIFER: 2.199m **VOLUME PURGED:** 3L

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ 10.27	7.86	1.15	200	1.81	21.07	0.057
2/ 10.30	7.61	1.15	0	2.22	19.46	0.057
3/ 10.33	7.30	1.15	0	1.19	19.13	0.057
4/						
5/						
6/						

Sample Appearance: dark grey turbid slightly sulphur odor
Duplicate Identification and Other Remarks:

BORE OR LOCATION ID: Sediment Dam 1 (North west corner – adjacent railway). Label bottles 'Sed1'

TIME: 9.05 **TO** 9.30

RESULTS OF WATER QUALITY CHECK:

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/ 9.10	5.27	0.705	0	6.79	17.66	0.034
2/ 9.12	5.72	0.649	763	6.12	20.33	0.031
3/ 9.15	6.07	0.638	125	6.14	21.10	0.030
4/ 9.19	6.15	0.646	89.4	6.33	21.31	0.031
5/						
6/						

Sample Appearance: clear water right yellow taste no odor
Duplicate Identification and Other Remarks:

water temp 0.63

BORE OR LOCATION ID: Surface Water 1. Label bottles 'SW1' – Previously known as 'DIS-SED1'

TIME: _____ **TO** _____ *no results*

BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** _____

DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____

RESULTS OF WATER QUALITY CHECK: _____

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/						
2/						
3/						
4/						
5/						
6/						

Sample Appearance: _____

Duplicate Identification and Other Remarks: _____

BORE OR LOCATION ID: BSW1 (Western side of Racecourse Road, north of rail access drive). Label bottles 'BSW1' – Previously known as 'SW1'

TIME: *1.45pm* **TO** *2.05pm*

BORE DEPTH: _____ **HEIGHT ABOVE GROUND LEVEL:** _____

DEPTH TO AQUIFER: _____ **VOLUME PURGED:** _____

RESULTS OF WATER QUALITY CHECK: *no results*

Check No.	pH	Conductivity (mS/cm)	Turbidity	Dissolved O ₂ (mg/L)	Temperature (°C)	Salinity (%)
1/	<i>6.45</i>	<i>0.959</i>	<i>11.8</i>	<i>3.81</i>	<i>28.48</i>	<i>0.047</i>
2/	<i>6.91</i>	<i>0.909</i>	<i>12.5</i>	<i>2.98</i>	<i>29.34</i>	<i>0.045</i>
3/						
4/						
5/						
6/						

Sample Appearance: *clear water some algae + red dirt in sample*

Duplicate Identification and Other Remarks: *no odour*

Appendix B

Laboratory Report Sheets

CERTIFICATE OF ANALYSIS 387117

Client Details

Client	RCA Australia
Attention	Fiona Brooker
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	<u>13589a</u>
Number of Samples	8 Water
Date samples received	29/07/2025
Date completed instructions received	30/07/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. 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.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	06/08/2025
Date of Issue	06/08/2025

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

Diego Bigolin, Inorganics Supervisor
 Laura Schofield, Lab Manager
 Loren Bardwell, Development Chemist
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water					
Our Reference		387117-5	387117-6	387117-7	387117-8
Your Reference	UNITS	Sed-2	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	02/08/2025	02/08/2025	02/08/2025	02/08/2025
Date analysed	-	04/08/2025	04/08/2025	04/08/2025	04/08/2025
TRH C ₆ - C ₉	µg/L	<10	<10	<10	<10
TRH C ₆ - C ₁₀	µg/L	<10	<10	<10	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	106	110	111	109
Surrogate Toluene-d8	%	96	97	97	97
Surrogate 4-Bromofluorobenzene	%	101	103	103	102

svTRH (C10-C40) in Water					
Our Reference		387117-5	387117-6	387117-7	387117-8
Your Reference	UNITS	Sed-2	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	31/07/2025	31/07/2025	31/07/2025	31/07/2025
Date analysed	-	02/08/2025	02/08/2025	01/08/2025	02/08/2025
TRH C ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆	µg/L	<50	<50	<50	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100	<100	<100	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50	<50
Surrogate o-Terphenyl	%	67	71	78	67

HM in water - dissolved					
Our Reference		387117-5	387117-6	387117-7	387117-8
Your Reference	UNITS	Sed-2	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	31/07/2025	31/07/2025	31/07/2025	31/07/2025
Date analysed	-	31/07/2025	31/07/2025	31/07/2025	31/07/2025
Aluminium-Dissolved	µg/L	140	<10	120	110
Arsenic-Dissolved	µg/L	11	2	4	10
Boron-Dissolved	µg/L	70	100	80	60
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	33	<1	28	27
Cobalt-Dissolved	µg/L	2	<1	<1	1
Copper-Dissolved	µg/L	17	3	9	14
Lead-Dissolved	µg/L	<1	<1	<1	<1
Nickel-Dissolved	µg/L	3	2	2	3
Selenium-Dissolved	µg/L	<1	<1	<1	<1
Zinc-Dissolved	µg/L	7	8	6	6

Metals in Waters - Acid extractable

Our Reference		387117-1	387117-2	387117-3	387117-4	387117-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	31/07/2025	31/07/2025	31/07/2025	31/07/2025	31/07/2025
Date analysed	-	04/08/2025	04/08/2025	04/08/2025	04/08/2025	04/08/2025
Phosphorus - Total	mg/L	0.3	0.09	2.3	2.5	0.1

Metals in Waters - Acid extractable

Our Reference		387117-6	387117-7	387117-8
Your Reference	UNITS	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water
Date prepared	-	31/07/2025	31/07/2025	31/07/2025
Date analysed	-	04/08/2025	04/08/2025	04/08/2025
Phosphorus - Total	mg/L	0.05	<0.05	0.1

Miscellaneous Inorganics						
Our Reference		387117-1	387117-2	387117-3	387117-4	387117-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	30/07/2025	30/07/2025	30/07/2025	30/07/2025	30/07/2025
Date analysed	-	30/07/2025	30/07/2025	30/07/2025	30/07/2025	30/07/2025
Ammonia as N in water	mg/L	2.0	2.8	0.054	0.14	0.007
Nitrite as N in water	mg/L	<0.005	<0.01	0.008	0.02	0.098
Nitrate as N in water	mg/L	<0.005	<0.01	<0.005	0.02	1.3
NOx as N in water	mg/L	0.005	<0.01	0.01	0.03	1.4
TKN in water	mg/L	[NA]	[NA]	7.8	7.2	0.8
Total Nitrogen in water	mg/L	[NA]	[NA]	7.8	7.3	2.2
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	[NA]	[NA]	[NA]	[NA]	0.02

Miscellaneous Inorganics				
Our Reference		387117-6	387117-7	387117-8
Your Reference	UNITS	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water
Date prepared	-	30/07/2025	30/07/2025	30/07/2025
Date analysed	-	30/07/2025	30/07/2025	30/07/2025
Ammonia as N in water	mg/L	0.01	0.067	<0.005
Nitrite as N in water	mg/L	<0.005	0.14	0.099
Nitrate as N in water	mg/L	<0.005	0.80	1.4
NOx as N in water	mg/L	0.005	0.94	1.5
TKN in water	mg/L	0.8	0.3	0.9
Total Nitrogen in water	mg/L	0.8	1.2	2.3
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	<0.005	0.02	0.02

Miscellaneous Inorganics

Our Reference		387117-1	387117-2	387117-3	387117-4	387117-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025
Date analysed	-	29/07/2025	29/07/2025	29/07/2025	29/07/2025	29/07/2025
Total Suspended Solids	mg/L	[NA]	[NA]	27	23	29
pH	pH Units	7.4	6.3	8.0	7.5	9.9
Electrical Conductivity	µS/cm	960	1,400	1,700	1,800	510

Miscellaneous Inorganics

Our Reference		387117-6	387117-7	387117-8
Your Reference	UNITS	SW2	Sed-1	QA
Date Sampled		29/07/2025	29/07/2025	29/07/2025
Type of sample		Water	Water	Water
Date prepared	-	29/07/2025	29/07/2025	29/07/2025
Date analysed	-	29/07/2025	29/07/2025	29/07/2025
Total Suspended Solids	mg/L	<5	12	23
pH	pH Units	7.6	9.3	9.9
Electrical Conductivity	µS/cm	1,000	440	510

Method ID	Methodology Summary
Ext-073_F	Analysis of pH in Water by AS 4500 H+ B and in-house method ENV-LAB006, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_G	Analysis of Conductivity in Water by AS 2510 B and in-house method ENV-LAB010, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_J	Analysis of Total Suspended Solids in Water by AS 2540 D and in-house method ENV-LAB009, Analysed by Envirolab Newcastle - NATA Site No. 18077
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stoichiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			02/08/2025	5	02/08/2025	05/08/2025		02/08/2025	[NT]
Date analysed	-			04/08/2025	5	04/08/2025	06/08/2025		04/08/2025	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	5	<10	<10	0	103	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	5	<10	<10	0	103	[NT]
Benzene	µg/L	1	Org-023	<1	5	<1	<1	0	104	[NT]
Toluene	µg/L	1	Org-023	<1	5	<1	<1	0	103	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	5	<1	<1	0	102	[NT]
m+p-xylene	µg/L	2	Org-023	<2	5	<2	<2	0	102	[NT]
o-xylene	µg/L	1	Org-023	<1	5	<1	<1	0	103	[NT]
Naphthalene	µg/L	1	Org-023	<1	5	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	5	106	109	3	104	[NT]
Surrogate Toluene-d8	%		Org-023	96	5	96	97	1	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	100	5	101	102	1	98	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			31/07/2025	[NT]	[NT]	[NT]	[NT]	31/07/2025	[NT]
Date analysed	-			02/08/2025	[NT]	[NT]	[NT]	[NT]	01/08/2025	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	97	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	65	[NT]	[NT]	[NT]	[NT]	103	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date extracted	-			[NT]	[NT]	[NT]	[NT]	[NT]	31/07/2025	[NT]
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	02/08/2025	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	71	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	76	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	77	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	71	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	[NT]	[NT]	[NT]	[NT]	79	[NT]

QUALITY CONTROL: HM in water - dissolved					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			31/07/2025	[NT]	[NT]	[NT]	[NT]	31/07/2025	[NT]
Date analysed	-			31/07/2025	[NT]	[NT]	[NT]	[NT]	31/07/2025	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	97	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Boron-Dissolved	µg/L	20	Metals-022	<20	[NT]	[NT]	[NT]	[NT]	100	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	387117-2
Date prepared	-			31/07/2025	1	31/07/2025	31/07/2025		31/07/2025	31/07/2025
Date analysed	-			04/08/2025	1	04/08/2025	04/08/2025		04/08/2025	04/08/2025
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	1	0.3	0.3	0	108	93

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	387117-2
Date prepared	-			30/07/2025	1	30/07/2025	30/07/2025		30/07/2025	30/07/2025
Date analysed	-			30/07/2025	1	30/07/2025	30/07/2025		30/07/2025	30/07/2025
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	2.0	2.0	0	101	86
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	101	127
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	103	97
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.005	0.005	0	103	97
TKN in water	mg/L	0.1	Inorg-062	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	0.005	Inorg-118	<0.005	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			29/07/2025	1	29/07/2025	29/07/2025		29/07/2025	[NT]
Date analysed	-			29/07/2025	1	29/07/2025	29/07/2025		29/07/2025	[NT]
Total Suspended Solids	mg/L	5	Ext-073_J	<5	[NT]	[NT]	[NT]	[NT]	100	[NT]
pH	pH Units		Ext-073_F	[NT]	1	7.4	7.4	0	100	[NT]
Electrical Conductivity	µS/cm	1	Ext-073_G	<1	1	960	960	0	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

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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

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.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

MISC_INORG: Nitrite as N in water, Nitrate as N in water, NOx as N in water PQL has been raised due to matrix interferences from analytes (other than those being tested) in the sample/s. Samples were diluted and reanalysed however same results were achieved.

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP



Company:	RCA Australia	RCA Reference Number (i.e. report title)	13589a
Contact person:	Fiona Brooker	PO No. (if applicable):	Not applicable
Project Mgr:	Fiona Brooker	Envirolab Quote No. :	BM8
Sampler:	Anh Hoang	Date results required:	
Address:	92 Hill St Carrington, NSW 2294		
Phone:	02 4902 9200	Mob:	0410 230 644
Email results to:	administrator@rca.com.au	enviro@rca.com.au	
Email invoice to:			

ENVIROLAB GROUP

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 sydney@envirolab.com.au

Sample Information

Envirolab Sample ID	Client Sample ID	Date sampled	Type of sample	# Containers	Tests Required										Comments
					E01580 - Total Suspended Solids (TSS)	E00705-NH3, E00815-NO2, E00790-NO3, E00850-NOx, E01090-Total P)	E010300 - Nutrient Suite (NH3, NO2, NO3, NOx, TKN (calc), Total N, Total P)	E07290 and E07220 TRH C6-C40	E03010_D - Dissolved (Aluminium, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Zinc)	E05360 - Hexavalent Chromium	E01140 - pH	E01150 - Electrical Conductivity		Sediment within container to be included in analysis if X	Provide as much information about the sample as you can
1	GW1	29/07/2025 - 14:10	Water	4		x					x	x		x	Job No: 387117
2	GW3	29/07/2025 - 12:30	Water	4		x					x	x		x	207/15
3	LP	29/07/2025 - 12:00	Water	4	x		x				x	x		x	Date Received: 10/10
4	WL	29/07/2025 - 11:20	Water	4	x		x				x	x		x	Time Received: 10/10
5	Sed-2	29/07/2025 - 13:30	Water	9	x		x	x	x	x	x	x		x	Received By: CW
6	SW2	29/07/2025 - 14:40	Water	9	x		x	x	x	x	x	x		x	Temp: Cool/Ambient
7	Sed-1	29/07/2025 - 15:10	Water	9	x		x	x	x	x	x	x		x	Chilling: Icepack
	SW1	29/07/2025	Water	9	x		x	x	x	x	x	x		x	Security: Intact/Broken/None
8	QAMonthYear	29/07/2025	Water	9	x		x	x	x	x	x	x		x	No sample
Total				52	6	2	6	4	4	4	8	8		8	

Relinquished by (company):	RCA Australia	Received by (company):	Envirolab	Lab use only:			
Print Name:	Anh Hoang	Print Name:	Samhush Joseph	Job Number:	387117	Cooling:	Ice / Ice Pack / None
Date & Time:	29.7.25 15:45	Date & Time:	29/7/25 15:50	Temperature:	5°C	Security Seal:	Intact / Broken / Not Used
Signature:	<i>anh</i>	Signature:	<i>Samhush Joseph</i>	TAT Req:	SAME DAY / 1 / 2 / 3 / 4	STD	

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	Fiona Brooker

Sample Login Details

Your reference	13589a
Envirolab Reference	387117
Date Sample Received	29/07/2025
Date Instructions Received	30/07/2025
Date Results Expected to be Reported	06/08/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved	Metals in Waters - Acid extractable	Ammonia as N in water	Nitrite as N in water	Nitrate as N in water	NOx as N in water	TKN in water	Total Nitrogen in water	Hexavalent Chromium, Cr6+ (dissolved)	Miscellaneous Inorganics
GW1				✓	✓	✓	✓	✓				✓
GW3				✓	✓	✓	✓	✓				✓
LP				✓	✓	✓	✓	✓	✓	✓		✓
WL				✓	✓	✓	✓	✓	✓	✓		✓
Sed-2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sed-1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
QA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' 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.

CERTIFICATE OF ANALYSIS 389629

Client Details

Client	RCA Australia
Attention	Fiona Brooker
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	<u>13589a</u>
Number of Samples	9 Water
Date samples received	02/09/2025
Date completed instructions received	02/09/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. 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.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	09/09/2025
Date of Issue	09/09/2025

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By

Giovanni Agosti, Group Technical Manager
 Laura Schofield, Lab Manager
 Priya Samarawickrama, Senior Chemist
 Tabitha Roberts, Senior Chemist
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water

Our Reference		389629-1	389629-2	389629-5	389629-6	389629-7
Your Reference	UNITS	GW1	GW3	Sed-2	BSW2	Sed-1
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025
Date analysed	-	05/09/2025	05/09/2025	05/09/2025	05/09/2025	05/09/2025
TRH C ₆ - C ₉	µg/L	<10	<10	<10	<10	<10
TRH C ₆ - C ₁₀	µg/L	<10	<10	<10	<10	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	98	102	102	102	102
Surrogate Toluene-d8	%	98	97	97	97	98
Surrogate 4-Bromofluorobenzene	%	91	90	91	91	89

vTRH(C6-C10)/BTEXN in Water

Our Reference		389629-8	389629-9
Your Reference	UNITS	BSW1	QA
Date Sampled		29/08/2025	29/08/2025
Type of sample		Water	Water
Date extracted	-	04/09/2025	04/09/2025
Date analysed	-	05/09/2025	05/09/2025
TRH C ₆ - C ₉	µg/L	<10	<10
TRH C ₆ - C ₁₀	µg/L	<10	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	<10
Benzene	µg/L	<1	<1
Toluene	µg/L	<1	<1
Ethylbenzene	µg/L	<1	<1
m+p-xylene	µg/L	<2	<2
o-xylene	µg/L	<1	<1
Naphthalene	µg/L	<1	<1
Surrogate Dibromofluoromethane	%	101	103
Surrogate Toluene-d8	%	97	98
Surrogate 4-Bromofluorobenzene	%	90	90

svTRH (C10-C40) in Water						
Our Reference	UNITS	389629-1	389629-2	389629-5	389629-6	389629-7
Your Reference		GW1	GW3	Sed-2	BSW2	Sed-1
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	04/09/2025	04/09/2025	04/09/2025	04/09/2025	04/09/2025
TRH C ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆	µg/L	<50	<50	<50	<50	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100	<100	<100	<100	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	101	94	100	93	103

svTRH (C10-C40) in Water			
Our Reference	UNITS	389629-8	389629-9
Your Reference		BSW1	QA
Date Sampled		29/08/2025	29/08/2025
Type of sample		Water	Water
Date extracted	-	03/09/2025	03/09/2025
Date analysed	-	04/09/2025	04/09/2025
TRH C ₁₀ - C ₁₄	µg/L	<50	<50
TRH C ₁₅ - C ₂₈	µg/L	<100	<100
TRH C ₂₉ - C ₃₆	µg/L	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50
TRH >C ₁₀ - C ₁₆	µg/L	<50	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50
Surrogate o-Terphenyl	%	89	96

PAHs in Water			
Our Reference		389629-1	389629-2
Your Reference	UNITS	GW1	GW3
Date Sampled		29/08/2025	29/08/2025
Type of sample		Water	Water
Date extracted	-	03/09/2025	03/09/2025
Date analysed	-	04/09/2025	04/09/2025
Naphthalene	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+k)fluoranthene	µg/L	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d14	%	78	91

HM in water - dissolved						
Our Reference		389629-5	389629-6	389629-7	389629-8	389629-9
Your Reference	UNITS	Sed-2	BSW2	Sed-1	BSW1	QA
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Aluminium-Dissolved	µg/L	210	20	1,400	20	210
Arsenic-Dissolved	µg/L	8	1	2	1	8
Boron-Dissolved	µg/L	50	90	30	100	50
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	15	<1	31	<1	16
Cobalt-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	7	3	12	4	7
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Nickel-Dissolved	µg/L	1	2	1	4	1
Selenium-Dissolved	µg/L	<1	<1	<1	<1	<1
Zinc-Dissolved	µg/L	6	10	3	22	3

Metals in Waters - Acid extractable

Our Reference		389629-1	389629-2	389629-3	389629-4	389629-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Phosphorus - Total	mg/L	0.4	0.3	1.2	1.8	0.1

Metals in Waters - Acid extractable

Our Reference		389629-6	389629-7	389629-8	389629-9
Your Reference	UNITS	BSW2	Sed-1	BSW1	QA
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Date analysed	-	03/09/2025	03/09/2025	03/09/2025	03/09/2025
Phosphorus - Total	mg/L	0.08	<0.05	0.1	0.1

Miscellaneous Inorganics

Our Reference		389629-1	389629-2	389629-3	389629-4	389629-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Ammonia as N in water	mg/L	1.0	1.6	0.02	0.54	0.34
Nitrite as N in water	mg/L	0.006	<0.005	<0.005	<0.005	0.29
Nitrate as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	0.56
NOx as N in water	mg/L	0.007	<0.005	<0.005	<0.005	0.85
TKN in water	mg/L	[NA]	[NA]	3.5	3.4	0.5
Total Nitrogen in water	mg/L	[NA]	[NA]	3.5	3.4	1.3
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	[NA]	[NA]	[NA]	[NA]	0.02

Miscellaneous Inorganics

Our Reference		389629-6	389629-7	389629-8	389629-9
Your Reference	UNITS	BSW2	Sed-1	BSW1	QA
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Date analysed	-	02/09/2025	02/09/2025	02/09/2025	02/09/2025
Ammonia as N in water	mg/L	0.05	0.12	0.01	0.36
Nitrite as N in water	mg/L	<0.005	1.5	<0.005	0.29
Nitrate as N in water	mg/L	0.007	0.49	0.44	0.58
NOx as N in water	mg/L	0.009	2.0	0.45	0.87
TKN in water	mg/L	0.6	0.1	0.6	0.5
Total Nitrogen in water	mg/L	0.6	2.2	1.0	1.4
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	<0.005	0.03	<0.005	0.02

Miscellaneous Inorganics						
Our Reference		389629-3	389629-4	389629-5	389629-6	389629-7
Your Reference	UNITS	LP	WL	Sed-2	BSW2	Sed-1
Date Sampled		29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Date analysed	-	29/08/2025	29/08/2025	29/08/2025	29/08/2025	29/08/2025
Total Suspended Solids	mg/L	32	21	23	7	<5
pH	pH Units	8.4	7.0	9.6	7.3	10.4
Electrical Conductivity	µS/cm	1,200	1,100	420	890	470

Miscellaneous Inorganics			
Our Reference		389629-8	389629-9
Your Reference	UNITS	BSW1	QA
Date Sampled		29/08/2025	29/08/2025
Type of sample		Water	Water
Date prepared	-	29/08/2025	29/08/2025
Date analysed	-	29/08/2025	29/08/2025
Total Suspended Solids	mg/L	22	21
pH	pH Units	7.4	9.6
Electrical Conductivity	µS/cm	950	450

Method ID	Methodology Summary
Ext-073_F	Analysis of pH in Water by AS 4500 H+ B and in-house method ENV-LAB006, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_G	Analysis of Conductivity in Water by AS 2510 B and in-house method ENV-LAB010, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_J	Analysis of Total Suspended Solids in Water by AS 2540 D and in-house method ENV-LAB009, Analysed by Envirolab Newcastle - NATA Site No. 18077
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.

Method ID	Methodology Summary
Metals-020	Determination of various metals/elements by ICP-AES. Total Phosphate determined stoichiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs. Where molecular anion forms are calculated from an element (e.g. SO₄ from S or PO₄ from P stoichiometrically), the assumption is that the element is only present in that molecular anion form.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
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-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			04/09/2025	1	04/09/2025	05/09/2025		04/09/2025	[NT]
Date analysed	-			05/09/2025	1	05/09/2025	08/09/2025		05/09/2025	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	1	<10	<10	0	104	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	1	<10	<10	0	104	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	100	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	98	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	113	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	104	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	107	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	95	1	98	103	5	94	[NT]
Surrogate Toluene-d8	%		Org-023	98	1	98	98	0	98	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	92	1	91	90	1	104	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	[NT]
Date analysed	-			04/09/2025	1	04/09/2025	04/09/2025		04/09/2025	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	1	<50	<50	0	106	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	1	<100	<100	0	113	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	1	<100	<100	0	100	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	1	<50	<50	0	106	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	1	<100	<100	0	113	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	1	<100	<100	0	100	[NT]
Surrogate o-Terphenyl	%		Org-020	108	1	101	107	6	115	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			03/09/2025	1	03/09/2025	03/09/2025		03/09/2025	[NT]
Date analysed	-			04/09/2025	1	04/09/2025	04/09/2025		04/09/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	66	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	68	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	68	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	69	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	69	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	67	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	64	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	71	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	88	1	78	83	6	84	[NT]

QUALITY CONTROL: HM in water - dissolved					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			03/09/2025	7	03/09/2025	03/09/2025		03/09/2025	[NT]
Date analysed	-			03/09/2025	7	03/09/2025	03/09/2025		03/09/2025	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	7	1400	1400	0	95	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	7	2	2	0	95	[NT]
Boron-Dissolved	µg/L	20	Metals-022	<20	7	30	20	40	103	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	7	<0.1	<0.1	0	93	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	7	31	31	0	94	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	<1	7	<1	<1	0	94	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	7	12	12	0	94	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	7	<1	<1	0	98	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	7	1	1	0	94	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	<1	7	<1	1	0	92	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	7	3	3	0	92	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389629-3
Date prepared	-			03/09/2025	2	03/09/2025	03/09/2025		03/09/2025	03/09/2025
Date analysed	-			03/09/2025	2	03/09/2025	03/09/2025		03/09/2025	03/09/2025
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	2	0.3	0.3	0	100	85

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	389629-2
Date prepared	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Date analysed	-			02/09/2025	1	02/09/2025	02/09/2025		02/09/2025	02/09/2025
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	1.0	1.1	10	101	#
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.006	0.006	0	103	123
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	98	102
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.007	0.008	13	98	102
TKN in water	mg/L	0.1	Inorg-062	<0.1	5	0.5	[NT]		[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	5	1.3	[NT]		94	[NT]
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	0.005	Inorg-118	<0.005	5	0.02	0.02	0	110	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	389629-4
Date prepared	-			[NT]	5	02/09/2025	02/09/2025		[NT]	02/09/2025
Date analysed	-			[NT]	5	02/09/2025	02/09/2025		[NT]	02/09/2025
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	5	0.34	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	5	0.29	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	5	0.56	[NT]		[NT]	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	[NT]	5	0.85	[NT]		[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	77

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	389629-6
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	02/09/2025
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	02/09/2025
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	0.005	Inorg-118	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	106

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			29/08/2025	3	29/08/2025	29/08/2025		29/08/2025	[NT]
Date analysed	-			29/08/2025	3	29/08/2025	29/08/2025		29/08/2025	[NT]
Total Suspended Solids	mg/L	5	Ext-073_J	<5	3	32	28	13	102	[NT]
pH	pH Units		Ext-073_F	[NT]	3	8.4	8.3	1	98	[NT]
Electrical Conductivity	µS/cm	1	Ext-073_G	[NT]	3	1200	1200	0	91	[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

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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

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.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

MISC_INORG: Ammonia as N in water # Percent recovery not reported due to the high concentration of the analyte/s in the sample/s. However, an acceptable recovery was obtained for the LCS.

CHAIN OF CUSTODY - Client



ENVIROLAB GROUP

Company:	RCA Australia		RCA Reference Number (i.e. report title)	13589a		ENVIROLAB GROUP Sydney Lab - Envirolab Services 12 Ashley St, Chatswood, NSW 2067 02 9910 6200 sydney@envirolab.com.au
Contact person:	Fiona Brooker		PO No. (if applicable):	Not applicable		
Project Mgr:	Fiona Brooker		Envirolab Quote No. :	BM8		
Sampler:			Date results required:	17/08/2025		
Address:	92 Hill St Carrington, NSW 2294					
Phone:	02 4902 9200	Mob:	0410 230 644			
Email results to:	administrator@rca.com.au + enviro@rca.com.au		Lab comments:			
Email invoice to:						

Sample information				# Containers	Tests Required										Comments
Envirolab Sample ID	Client Sample ID	Date sampled	Type of sample		E01580 - Total Suspended Solids (TSS)	E00705-NH3, E00815-NO2, E00790-NO3, E00850-NOx, E01090-Total P	E010300 - Nutrient Suite (NH3, NO2, NO3, NOx, TKN (calc), Total N, Total P)	E07290 and E07220 TRH C6-C40 and BTEXN	E03010_D - Dissolved (Aluminium, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Zinc)	E05360 - Hexavalent Chromium	E08310 - PAH low level	E01140 - pH	E01150 - Electrical Conductivity	Sediment within container to be included in analysis if X	
1	GW1	29/08/2025	Water	8		X		X			X			X	Provide as much information about the sample as you can Job No: 389629 Date Received: 29/8/25 Time Received: 1040 Received By: 57 Temp: Cool/Ambient Cooling: Ice/icepack Security: Intact/Broken/None
2	GW3	29/08/2025	Water	8		X		X			X			X	
3	LP	29/08/2025	Water	4	X		X					X	X	X	
4	WL	29/08/2025	Water	4	X		X					X	X	X	
5	Sed-2	29/08/2025	Water	9	X		X	X	X	X	X	X	X	X	
6	BSW2	29/08/2025	Water	9	X		X	X	X	X	X	X	X	X	
7	Sed-1	29/08/2025	Water	9	X		X	X	X	X	X	X	X	X	
8	BSW1	29/08/2025	Water	9	X		X	X	X	X	X	X	X	X	
9	QA Month/Year	29/08/2025	Water	9	X		X	X	X	X	X	X	X	X	
Total				69	7	2	7	7	5	5	2	7	7	9	

Relinquished by (company):	RCA Australia	Received by (company):	Envirolab	Lab use only:			
Print Name:	Damien	Print Name:	Yungki Sangro	Job Number	389629	Cooling:	Ice / Ice Pack / None
Date & Time:	29/8/25	Date & Time:	29-8-2025 16:45	Temperature	14.0°C	Security Seal:	Intact / Broken / Not Used
Signature:	D. Bunn	Signature:	Y. Sangro	TAT Req:	SAME DAY / 1 / 2 / 3 / 4 / STD		

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	Fiona Brooker

Sample Login Details

Your reference	13589a
Envirolab Reference	389629
Date Sample Received	02/09/2025
Date Instructions Received	02/09/2025
Date Results Expected to be Reported	09/09/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	9 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.0
Cooling Method	Ice
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

Sample ID	VTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	HM in water - dissolved	Metals in Waters - Acid extractable	Ammonia as N in water	Nitrite as N in water	Nitrate as N in water	NOx as N in water	TKN in water	Total Nitrogen in water	Hexavalent Chromium, Cr6+ (dissolved)	Miscellaneous Inorganics
GW1	✓	✓	✓		✓	✓	✓	✓	✓				
GW3	✓	✓	✓		✓	✓	✓	✓	✓				
LP					✓	✓	✓	✓	✓	✓	✓		✓
WL					✓	✓	✓	✓	✓	✓	✓		✓
Sed-2	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SW2	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sed-1	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BSW1	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
QA	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' 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.

CERTIFICATE OF ANALYSIS 391922

Client Details

Client	RCA Australia
Attention	RCA Administrator
Address	PO Box 175, Carrington, NSW, 2294

Sample Details

Your Reference	<u>13589a</u>
Number of Samples	9 Water
Date samples received	30/09/2025
Date completed instructions received	01/10/2025

Analysis Details

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

Samples were analysed as received from the client unless as indicated below in the method summaries. 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.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	09/10/2025
Date of Issue	09/10/2025

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
 Laura Schofield, Lab Manager
 Loren Bardwell, Development Chemist
 Priya Samarawickrama, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water					
Our Reference		391922-5	391922-6	391922-7	391922-8
Your Reference	UNITS	Sed-2	BSW2	Sed-1	BSW1
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025
Date analysed	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025
TRH C ₆ - C ₉	µg/L	<10	<10	<10	<10
TRH C ₆ - C ₁₀	µg/L	<10	<10	<10	<10
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	<10	<10	<10
Benzene	µg/L	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2	<2
o-xylene	µg/L	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	102	101	101	103
Surrogate Toluene-d8	%	97	98	98	97
Surrogate 4-Bromofluorobenzene	%	108	107	106	107

svTRH (C10-C40) in Water					
Our Reference		391922-5	391922-6	391922-7	391922-8
Your Reference	UNITS	Sed-2	BSW2	Sed-1	BSW1
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Date analysed	-	03/10/2025	03/10/2025	03/10/2025	03/10/2025
TRH C ₁₀ - C ₁₄	µg/L	<50	<50	<50	<50
TRH C ₁₅ - C ₂₈	µg/L	<100	<100	<100	<100
TRH C ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	<50	<50	<50
TRH >C ₁₀ - C ₁₆	µg/L	<50	<50	<50	<50
TRH >C ₁₆ - C ₃₄	µg/L	<100	<100	<100	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	<50	<50	<50
Surrogate o-Terphenyl	%	94	94	93	80

HM in water - dissolved					
Our Reference		391922-5	391922-6	391922-7	391922-8
Your Reference	UNITS	Sed-2	BSW2	Sed-1	BSW1
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Date analysed	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Aluminium-Dissolved	µg/L	240	<10	240	20
Arsenic-Dissolved	µg/L	11	4	8	4
Boron-Dissolved	µg/L	60	100	100	200
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	8	<1	8	<1
Cobalt-Dissolved	µg/L	<1	<1	<1	<1
Copper-Dissolved	µg/L	7	<1	9	3
Lead-Dissolved	µg/L	<1	<1	<1	<1
Nickel-Dissolved	µg/L	2	<1	3	3
Selenium-Dissolved	µg/L	<1	<1	1	<1
Zinc-Dissolved	µg/L	6	3	4	12

Metals in Waters - Acid extractable

Our Reference		391922-1	391922-2	391922-3	391922-4	391922-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Date analysed	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Phosphorus - Total	mg/L	0.4	0.3	2.9	2.3	0.2

Metals in Waters - Acid extractable

Our Reference		391922-6	391922-7	391922-8	391922-9
Your Reference	UNITS	BSW2	Sed-1	BSW1	QA092025
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Date analysed	-	02/10/2025	02/10/2025	02/10/2025	02/10/2025
Phosphorus - Total	mg/L	0.1	0.06	0.2	3.1

Miscellaneous Inorganics						
Our Reference		391922-1	391922-2	391922-3	391922-4	391922-5
Your Reference	UNITS	GW1	GW3	LP	WL	Sed-2
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025	01/10/2025
Date analysed	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025	01/10/2025
Ammonia as N in water	mg/L	1.8	2.3	<0.005	0.38	0.008
Nitrite as N in water	mg/L	<0.005	<0.005	<0.005	0.006	0.02
Nitrate as N in water	mg/L	<0.005	0.082	<0.005	0.01	<0.005
NOx as N in water	mg/L	<0.005	0.082	<0.005	0.02	0.02
TKN in water	mg/L	[NA]	[NA]	6.1	3.1	0.8
Total Nitrogen in water	mg/L	[NA]	[NA]	6.1	3.1	0.9
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	[NA]	[NA]	[NA]	[NA]	0.01

Miscellaneous Inorganics					
Our Reference		391922-6	391922-7	391922-8	391922-9
Your Reference	UNITS	BSW2	Sed-1	BSW1	QA092025
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025
Date analysed	-	01/10/2025	01/10/2025	01/10/2025	01/10/2025
Ammonia as N in water	mg/L	0.02	0.11	<0.005	<0.005
Nitrite as N in water	mg/L	<0.005	0.15	<0.005	<0.005
Nitrate as N in water	mg/L	0.052	0.073	<0.005	<0.005
NOx as N in water	mg/L	0.054	0.22	<0.005	<0.005
TKN in water	mg/L	0.9	0.9	1.2	6.7
Total Nitrogen in water	mg/L	1	1.1	1.2	6.7
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	<0.005	0.008	<0.005	[NA]

Miscellaneous Inorganics						
Our Reference		391922-3	391922-4	391922-5	391922-6	391922-7
Your Reference	UNITS	LP	WL	Sed-2	BSW2	Sed-1
Date Sampled		30/09/2025	30/09/2025	30/09/2025	30/09/2025	30/09/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	30/09/2025	30/09/2025	30/09/2025	30/09/2025	30/09/2025
Date analysed	-	30/09/2025	30/09/2025	30/09/2025	30/09/2025	30/09/2025
Total Suspended Solids	mg/L	94	250	50	14	61
pH	pH Units	8.3	6.9	9.6	7.3	9.2
Electrical Conductivity	µS/cm	1,900	1,200	430	890	640

Miscellaneous Inorganics			
Our Reference		391922-8	391922-9
Your Reference	UNITS	BSW1	QA092025
Date Sampled		30/09/2025	30/09/2025
Type of sample		Water	Water
Date prepared	-	30/09/2025	30/09/2025
Date analysed	-	30/09/2025	30/09/2025
Total Suspended Solids	mg/L	170	95
pH	pH Units	7.6	8.3
Electrical Conductivity	µS/cm	880	1,900

Method ID	Methodology Summary
Ext-073_F	Analysis of pH in Water by AS 4500 H+ B and in-house method ENV-LAB006, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_G	Analysis of Conductivity in Water by AS 2510 B and in-house method ENV-LAB010, Analysed by Envirolab Newcastle - NATA Site No. 18077
Ext-073_J	Analysis of Total Suspended Solids in Water by AS 2540 D and in-house method ENV-LAB009, Analysed by Envirolab Newcastle - NATA Site No. 18077
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.

Method ID	Methodology Summary
Metals-020	Determination of various metals/elements by ICP-AES. Total Phosphate determined stoichiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs. Where molecular anion forms are calculated from an element (e.g. SO₄ from S or PO₄ from P stoichiometrically), the assumption is that the element is only present in that molecular anion form.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
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.
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 CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			01/10/2025	5	01/10/2025	02/10/2025		01/10/2025	[NT]
Date analysed	-			01/10/2025	5	01/10/2025	03/10/2025		01/10/2025	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	5	<10	<10	0	87	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	5	<10	<10	0	87	[NT]
Benzene	µg/L	1	Org-023	<1	5	<1	<1	0	83	[NT]
Toluene	µg/L	1	Org-023	<1	5	<1	<1	0	86	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	5	<1	<1	0	89	[NT]
m+p-xylene	µg/L	2	Org-023	<2	5	<2	<2	0	89	[NT]
o-xylene	µg/L	1	Org-023	<1	5	<1	<1	0	89	[NT]
Naphthalene	µg/L	1	Org-023	<1	5	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	101	5	102	103	1	100	[NT]
Surrogate Toluene-d8	%		Org-023	97	5	97	98	1	101	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	108	5	108	106	2	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			02/10/2025	[NT]	[NT]	[NT]	[NT]	02/10/2025	[NT]
Date analysed	-			03/10/2025	[NT]	[NT]	[NT]	[NT]	03/10/2025	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	116	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	85	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	391922-6
Date prepared	-			02/10/2025	5	02/10/2025	02/10/2025		02/10/2025	02/10/2025
Date analysed	-			02/10/2025	5	02/10/2025	02/10/2025		02/10/2025	02/10/2025
Aluminium-Dissolved	µg/L	10	Metals-022	<10	5	240	220	9	87	86
Arsenic-Dissolved	µg/L	1	Metals-022	<1	5	11	11	0	88	91
Boron-Dissolved	µg/L	20	Metals-022	<20	5	60	50	18	95	97
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	5	<0.1	<0.1	0	86	87
Chromium-Dissolved	µg/L	1	Metals-022	<1	5	8	8	0	83	83
Cobalt-Dissolved	µg/L	1	Metals-022	<1	5	<1	<1	0	82	81
Copper-Dissolved	µg/L	1	Metals-022	<1	5	7	6	15	82	81
Lead-Dissolved	µg/L	1	Metals-022	<1	5	<1	<1	0	92	88
Nickel-Dissolved	µg/L	1	Metals-022	<1	5	2	1	67	82	80
Selenium-Dissolved	µg/L	1	Metals-022	<1	5	<1	<1	0	87	89
Zinc-Dissolved	µg/L	1	Metals-022	<1	5	6	3	67	89	80

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	391922-2
Date prepared	-			02/10/2025	1	02/10/2025	02/10/2025		02/10/2025	02/10/2025
Date analysed	-			02/10/2025	1	02/10/2025	02/10/2025		02/10/2025	02/10/2025
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	1	0.4	0.4	0	111	111

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	391922-2
Date prepared	-			01/10/2025	1	01/10/2025	01/10/2025		01/10/2025	01/10/2025
Date analysed	-			01/10/2025	1	01/10/2025	01/10/2025		01/10/2025	01/10/2025
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	1.8	1.8	0	97	#
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	95	113
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	96	91
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	96	91
TKN in water	mg/L	0.1	Inorg-062	<0.1	3	6.1	[NT]		[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	3	6.1	6.1	0	93	[NT]
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	0.005	Inorg-118	<0.005	5	0.01	0.01	0	116	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	391922-6
Date prepared	-			[NT]	3	01/10/2025	01/10/2025		[NT]	01/10/2025
Date analysed	-			[NT]	3	01/10/2025	01/10/2025		[NT]	01/10/2025
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	3	<0.005	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	3	<0.005	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	3	<0.005	[NT]		[NT]	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	[NT]	3	<0.005	[NT]		[NT]	[NT]
TKN in water	mg/L	0.1	Inorg-062	[NT]	5	0.8	[NT]		[NT]	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	[NT]	5	0.9	[NT]		[NT]	[NT]
Hexavalent Chromium, Cr ⁶⁺ (dissolved)	mg/L	0.005	Inorg-118	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	120

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	5	01/10/2025	01/10/2025		[NT]	[NT]
Date analysed	-			[NT]	5	01/10/2025	01/10/2025		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	5	0.008	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	5	0.02	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	5	<0.005	[NT]		[NT]	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	[NT]	5	0.02	[NT]		[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			30/09/2025	[NT]	[NT]	[NT]	[NT]	30/09/2025	[NT]
Date analysed	-			30/09/2025	[NT]	[NT]	[NT]	[NT]	30/09/2025	[NT]
Total Suspended Solids	mg/L	5	Ext-073_J	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
pH	pH Units		Ext-073_F	[NT]	[NT]	[NT]	[NT]	[NT]	100	[NT]
Electrical Conductivity	µS/cm	1	Ext-073_G	[NT]	[NT]	[NT]	[NT]	[NT]	99	[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

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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

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.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

MISC_INORG: # Percent recovery not reported due to the high concentration of the analyte/s in the sample/s. However, an acceptable recovery was obtained for the LCS.

CHAIN OF CUSTODY - Client



ENVIROLAB GROUP

Company:	RCA Australia		RCA Reference Number (i.e. report title)	
Contact person:	Fiona Brooker		13589a	
Project Mgr:	Fiona Brooker		PO No. (if applicable):	Not applicable
Sampler:	Damien		Envirolab Quote No. :	BM8
Address:	92 Hill St Carrington, NSW 2294		Date results required:	Handwritten
Phone:	02 4902 9200	Mob:	0410 230 644	
Email results to:	administrator@rca.com.au + envoiro@rca.com.au		Lab comments:	
Email invoice to:				

ENVIROLAB GROUP

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
02 9910 6200 sydney@envirolab.com.au

Sample information				# Containers	Tests Required										Comments
Envirolab Sample ID	Client Sample ID	Date sampled	Type of sample		E01580 - Total Suspended Solids (TSS)	E00705-NH3, E00815-NO2, E00790-NO3, E00850-NOx, E01090-Total P)	E010300 - Nutrient Suite (NH3, NO2, NO3, NOx, TKN (calc), Total N, Total P)	E07290 and E07220 TRH C6-C40	E03010_D - Dissolved (Aluminium, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Zinc)	E05360 - Hexavalent Chromium	E01140 - pH	E01150 - Electrical Conductivity		Sediment within container to be included in analysis if X	Provide as much information about the sample as you can
1	GW1	30/09/2025	Water	4		x								x	
2	GW3	30/09/2025	Water	4		x								x	
3	LP	30/09/2025	Water	4	x		x				x	x		x	
4	WL	30/09/2025	Water	4	x		x				x	x		x	
5	Sed-2	30/09/2025	Water	9	x		x	x	x	x	x	x		x	
6	BSW2	30/09/2025	Water	9	x		x	x	x	x	x	x		x	
7	Sed-1	30/09/2025	Water	9	x		x	x	x	x	x	x		x	
8	BSW1	30/09/2025	Water	9	x		x	x	x	x	x	x		x	
9	QA092025	30/09/2025	Water	4	x		x				x	x		x	
10	ALD														
Total				56	7	2	7	4	4	4	7	7		2	

Relinquished by (company):	RCA Australia	Received by (company):	Envirolab	Lab use only:	
Print Name:	Damien	Print Name:	Santhak Joseph	Job Number:	291922
Date & Time:	30-9-24	Date & Time:	30/9/25 15:05	Temperature:	18.2
Signature:	D. Brooker	Signature:	[Signature]	TAT Req:	SAME DAY / 1 / 2 / 3 / 4 / (STD)
			Cooling: Ice/Icepack Security: Ice / Ice Pack / None Contact: Intact / Broken / Not Used		

SAMPLE RECEIPT ADVICE

Client Details

Client	RCA Australia
Attention	RCA Administrator

Sample Login Details

Your reference	13589a
Envirolab Reference	391922
Date Sample Received	30/09/2025
Date Instructions Received	01/10/2025
Date Results Expected to be Reported	09/10/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	9 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	18.2
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:

Sample ID	VTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved	Metals in Waters - Acid extractable	Ammonia as N in water	Nitrite as N in water	Nitrate as N in water	NOx as N in water	TKN in water	Total Nitrogen in water	Hexavalent Chromium, Cr6+ (dissolved)	Miscellaneous Inorganics
GW1				✓	✓	✓	✓	✓				
GW3				✓	✓	✓	✓	✓				
LP				✓	✓	✓	✓	✓	✓	✓		✓
WL				✓	✓	✓	✓	✓	✓	✓		✓
Sed-2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BSW2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sed-1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BSW1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
QA092025				✓	✓	✓	✓	✓	✓	✓		✓

The '✓' 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.