

REPORT

## BI-ANNUAL ENVIRONMENTAL WATER REPORT DECEMBER 2024 – MAY 2025

S2-FGJV-ENV-REP-0129

Rev A

JUNE 2025

### ABSTRACT

This document provides a summary of surface- and ground-water quality and associated information for monitoring conducted as part the Snowy 2.0 project, across monitoring locations pertaining to Environmental Protection Licence (EPL) 21266.



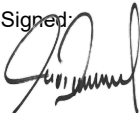
### Revision Record

Rev.	Date	Reason for Issue	Responsible	Accountable	Endorsed
A	23/06/2025	Issued for review	S. Lang	E. Porter	D. Drummond



## Document Verification

### RACIE Record

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## EXECUTIVE SUMMARY

Snowy 2.0 was declared State Significant Infrastructure and Critical State Significant Infrastructure by the NSW Minister for Planning under the provisions of the NSW Environmental Planning and Assessment Act 1979 and is defined in Clause 9 of Schedule 5 of the State Environmental Planning Policy (State and Regional Development) 2011. The Project was issued an Environmental Protection License (21266) comprising conditions governing the safeguarding of the surrounding environmental receptors.

The purpose of this report is to provide a six (6) monthly update of surface water and groundwater monitoring undertaken for the Snowy 2.0 project in accordance with Condition R4.2 of EPL 21266. For the purposes of this report, the reporting period is defined as days occurred between 1 December 2024 through to 31 May 2025.

Overall, the additional monitoring locations included in the December variation of EPL21266 allowed for increased oversight throughout the Project, including both surface water and groundwater locations.

Consistent algal blooms were observed across Talbingo and Tantangara reservoirs throughout the reporting period. The algal presence is consistent with historic observations made by the Project during the warmer months. The warmer ambient temperatures, reduction in reservoir water volumes (due to construction or potentially SHL BAU operations) and flow reductions are key contributors to these occurrences. The algal presence is reflected in the nutrient concentrations, elevated water temperatures and other such physio-chemical indicators within the water bodies.

Increases in select nutrient analytes were observed across the numerous water receptors was typically reported in locations within immediate proximity to spoil emplacement areas, received overland water flow stemming from emplacement areas or roadway runoff. The exceptions to the aforementioned observations include leachate basin concentrations and those locations comprised by smaller streams with abundant animal and plant matter within the body.

## 1. INTRODUCTION

Snowy 2.0 was declared State Significant Infrastructure and Critical State Significant Infrastructure by the NSW Minister for Planning under the provisions of the NSW Environmental Planning and Assessment Act 1979 and is defined in Clause 9 of Schedule 5 of the State Environmental Planning Policy (State and Regional Development) 2011.

An Infrastructure Approval No. SSI 9208 based on the Environmental Impact Statement (EIS) submitted for the Snowy 2.0 Exploratory Works was received on February 7, 2019.

An Environment Protection Licence No. 21266 (EPL - 21266) under Section 55 of the Protection of the Environment Operations Act 1997 (NSW) was issued to Snowy Hydro Ltd (Snowy Hydro) on May 9, 2019, by the New South Wales Environment Protection Authority (NSW EPA) for land based extractive activities at Lobs Hole and Talbingo Reservoir in Kosciuszko National Park.

Webuild, Clough, and Lane have formed Future Generation Joint Venture (FGJV) and have been engaged by Snowy Hydro Limited (SHL) to deliver both Stage 2 of Exploratory Works and Snowy 2.0 Main Works. As required by EPL 21266 Future Generation have undertaken a monthly monitoring program to assess the influence of the Snowy 2.0 Main Works project on groundwater and receiving surface water quality across the Project, specifically the work sites of Talbingo, Lobs Hole, Tantangara, Marica and Rock Forest. This report captures a six-month period within the Construction phase of the Project, as required by EPL 21266.

This report has been prepared by Scott Lang, Environmental Coordinator for FGJV. Scott holds a Bachelor of Science and has over 8 years industry experience.

This report has been reviewed by Dr Ellen Porter, Environmental Manager for FGJV. Ellen holds a PhD in Organic Geochemistry, is a Certified Environmental Practitioner (no. 1080), and has 14 years' experience in the field of environmental assessment, monitoring and reporting.

Noting the above, FGJV considers this report adequately prepared by suitably trained and qualified personnel.

### 1.1. Purpose

The purpose of this report is to provide a six (6) monthly update of surface water and groundwater monitoring undertaken for the Snowy 2.0 project in accordance with Condition R4.2 of EPL 21266.

Section 2, Condition P1.2 of EPL 21266 identifies the points required for monitoring, these points are presented in **Appendix A**.

For the purposes of this report, the reporting period is defined as days occurred between 1 December 2024 through to 31 May 2025.

## 1.2. Conditions of Report

As per Section 6, Condition R4.3 of EPL 21266 this report must include the information listed in Table 1-2 below.

**Table 1-2: EPL 21266 Environmental Monitoring Report Requirements**

Environmental Monitoring Report requirement	Report Section
Results of all water quality monitoring undertaken in the preceding six (6) month period	Appendix B, Appendix C
Results of all weather monitoring undertaken in the preceding six (6) month period	Section 2
Assessment of historical trends in all water sampling data for each monitoring point inclusive of the current six (6) month period	Section 3
Identification of instances where the water quality objective triggers for each relevant pollutant were exceeded at receiving water locations and/or where the predicted discharge water quality was exceeded at sediment basin discharge points;	Section 3, Appendix C, Appendix D
Include details of any actions taken by the Licensee in response to exceedances identified including but not limited to: i. additional monitoring ii. remedial actions; and iii. activation of trigger, action, response plans (TARPs);	Sections 3 and 4
Recommendations for future actions in relation to monitoring and/or management	Section 4

## 1.3. EPL Variations in Reporting Period

During the reporting period, one variation to EPL 21266 was formalised on 20 December 2024. undergoing a formal review. The variations made are noted below:

- Condition A1.3 was updated to include reference to works associated with Modification 4 works, the Marica Adit and the spoil emplacement areas Ravine Bay and Rock Forest.
- Condition P1.3: The location description for all monitoring points have been updated and monitoring points 98 - 122 have been added to the licence (EPL99 through to EPL122).
- Condition L2.4: 90 percentile limit for biological oxygen demand has been raised from 1mg/L to 2mg/L.
- Condition M2.2: Sampling method for several pollutants changed from grab sample to in-situ due to limitations in the transportation of samples.
- Condition O5.6: Reference to provide report to Regional Manager updated to info@epa.nsw.gov.au.
- Condition G3.1: Completed Programs table added for consistency.
- Condition U2: Sampling Quality Assurance Program PRS was removed.
- Condition E1.2-E2.2: References to provide reports to Regional Manager updated to new recipient address.
- Condition E4: Conditions requiring the development of and compliance with a Nitrogen Management.

## 1.4. Regulatory Actions

Clean-Up Notice 3507331 (SR-1638) was issued to SHL on the 1 December 2023. Notice 3507331 comprised directions regarding management of materials and water, more specifically, nutrient concentrations in ground water and surface water from the Project spoil emplacement areas exceeding the relevant WQO's. FGJV is actively addressing the ongoing high levels of nitrogen and nutrients, including:

- Conducting spoil coring of emplacement areas including GF01, Main Yard, and Lick Hole Gully to identify hot spots;
- Conducting additional water sampling with weekly in situ and comprehensive sampling in accordance with TARP 1;
- Installation of additional groundwater bores;
- Groundwater extraction with treatment of groundwater and leachate basin water at the construction water treatment plants;
- Review of water and spoil by water experts and consultants; and
- Investigation of options for improvements to the onsite treatment systems and processes.

On the 14 of November 2024, SHL was issued Variation 3510847 to Clean Up Notice 3507331. The variation encompassed updated definitions regarding material requiring management under the Notice. Specifically, the updates included:

- Immediately from the date of this Notice, being 1 December 2023, cease all further emplacement of waste sludge and filter cake material at all permanent and temporary spoil emplacement area within Kosciuszko National Park until a date approved in writing by the EPA. Filter cake material refers to suspended solids removed from the Water Treatment Plant. Waste sludge material refers to fines collected from:
  - Water collection tanks from the tunnels
  - Water treatment tanks
  - Wedge pits
  - Leachate basins.

- By 5pm on the date which is one (1) week from the date of this Notice being 8 December 2023, commence providing a fortnightly status report to the EPA via [info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au) and copy in [carlie.armstrong@epa.nsw.gov.au](mailto:carlie.armstrong@epa.nsw.gov.au) on the progress of:
  - a. The Action Plan provided in response to the Prevention Notice
  - b. Extraction volumes and treatment of groundwater and surface water at relevant spoil emplacement locations where relevant guidelines have been exceeded
  - c. All updated water quality monitoring data collect and analysed for monitoring points relevant to the spoil emplacement areas across the project. The data must:
    - Be provided in continuous excel format
    - Adopt mg/L as the unit of measurement
    - Not include negative values
    - Include consistent Limits of Detection across all reports and
    - Refer to relevant licence monitoring point numbers with no spacing (e.g. EPL1, EPL2)
- By 5pm on the date which is one (1) week from the date of this Notice, being 8 December 2023, establish meetings between Snowy Hydro and the EPA to provide a platform discussing the status of the response to the incident and next steps. The EPA recommends that these meetings are rotated fortnightly, with week 1 being led by operational staff, and week 2 being led by senior officers (e.g. Project Directors). Meeting invites can be directed to Andreas Stricker at [andreas.stricker@epa.nsw.gov.au](mailto:andreas.stricker@epa.nsw.gov.au) for distribution to relevant EPA attendees.

On 17 April 2025, SHL were issued with Variation of Clean Up Notice 3512129. The variation stated the NSW EPA allow for '*disposal of waste sludge or fines collected from Leachate Basins within lined permanent emplacement areas*'.

### 1.5. Project Updates

This bi-annual monitoring update includes sampling events within the reporting period. This period included significant progress of the Main Works package of the Snowy 2.0 Project. A summary of construction activities at each site is outlined in **Table 1 – 5 below** on the following page.

Table 1-5: Key Construction Activities

LOCATION	KEY CONSTRUCTION ACTIVITIES
Lobs Hole	<p><b>ACCOMMODATION CAMPS</b></p> <ul style="list-style-type: none"> <li>Exploratory Camp Accommodation – Fabrication installation and commissioning of 6 buildings and facilities.</li> </ul> <p><b>MAIN YARD</b></p> <ul style="list-style-type: none"> <li>LH Main Office Expansion - Building installation and internal fit-out ongoing. Utilities installation and upgrades ongoing.</li> <li>Main yard surface temporary works ongoing.</li> </ul> <p><b>ECVT / MAT PORTAL</b></p> <ul style="list-style-type: none"> <li>TBM 1 advancing up the alignment.</li> <li>Grouting in LST and other testing works ongoing.</li> <li>Emergency basin liner upgrades complete.</li> <li>Drilling subcontractor's scope complete at Marica West, the area has been deconstructed.</li> <li>MAT portal spoil yard construction works ongoing.</li> </ul> <p><b>MAIN OFFICE</b></p> <ul style="list-style-type: none"> <li>Construction works on structural office complete, office fit out and service connections on going.</li> <li>Septic and sewerage installation complete.</li> <li>Car park and pad expansion complete.</li> </ul> <p><b>GF01</b></p> <ul style="list-style-type: none"> <li>Spoil placement practically completed with final landform implementation works underway.</li> <li>GF01 leachate basin relined and sealed.</li> <li>Basin F10.5 reconstructed and relined.</li> </ul> <p><b>TALBINGO</b></p> <ul style="list-style-type: none"> <li>Stage 2 excavation is ongoing.</li> <li>Transition C1 Invert slab CS01 completed.</li> <li>Preparation works for micro piling scope commenced.</li> </ul> <p><b>RAVINE BAY</b></p> <ul style="list-style-type: none"> <li>Spoil placement ongoing.</li> <li>Piped connection between leachate basin and treatment plant continuing to transfer water.</li> <li>Further GCL liner installations across Cell 2 and 3.</li> <li>Leachate basins SB02 and SB03 constructed.</li> <li>Middle creek Bridge construction works, including rock filter dam.</li> </ul>
Marica	<ul style="list-style-type: none"> <li>USS excavation works ongoing.</li> <li>Marica Adit Portal clearing and grubbing works complete.</li> <li>Lining of TBM 4 temporary emplacement area commenced.</li> <li>Marica camp expansion works continuing.</li> <li>Groundwater monitoring bores BH5411, BH5412, BH5413 installed and commissioned.</li> </ul>
Rock Forest	<ul style="list-style-type: none"> <li>Construction of access roadway to PSE area complete. No further works occurred throughout the reporting period.</li> </ul>
Tantangara	<ul style="list-style-type: none"> <li>Construction of GCL lined PSE. Including 2 lined leachate basins and works progressed to include additional lined leachate basins completed and GCL lined cells nearing capacity.</li> <li>S2 expansions works commenced.</li> <li>Intake stage 2 works ongoing, with Stage 3 under review by SHL.</li> </ul>

## 2. WEATHER MONITORING RESULTS

### 2.1. Weather Stations

There are several weather stations along the alignment of the Project that report real-time data. These include:

- “Lobs Hole” - an automatic weather station managed by Future Generation in Lobs Hole Main Yard.
- “Cabramurra” - an automatic weather station located near the lookout in the Cabramurra township managed by the Bureau of Meteorology (BoM).
- “Tantangara” - an automatic weather station managed by Future Generation in Tantangara construction site.

The Tantangara and Lobs Hole gauges are in sub-alpine environments, with elevations of approximately 1200 m and 600 m, respectively. Cabramurra records substantially higher annual rainfall amount than the lower-elevation gauges at Lobs Hole and Tantangara. Tantangara and Lobs Hole weather stations record actual onsite conditions at the respective construction sites, while Cabramurra weather station, at 1470 m is typically representative of conditions at Marica, the rainfall data varies from occasional rainfall events experienced throughout the reporting period.

### 2.2. Rainfall Data

The cumulative rainfall within the reporting period

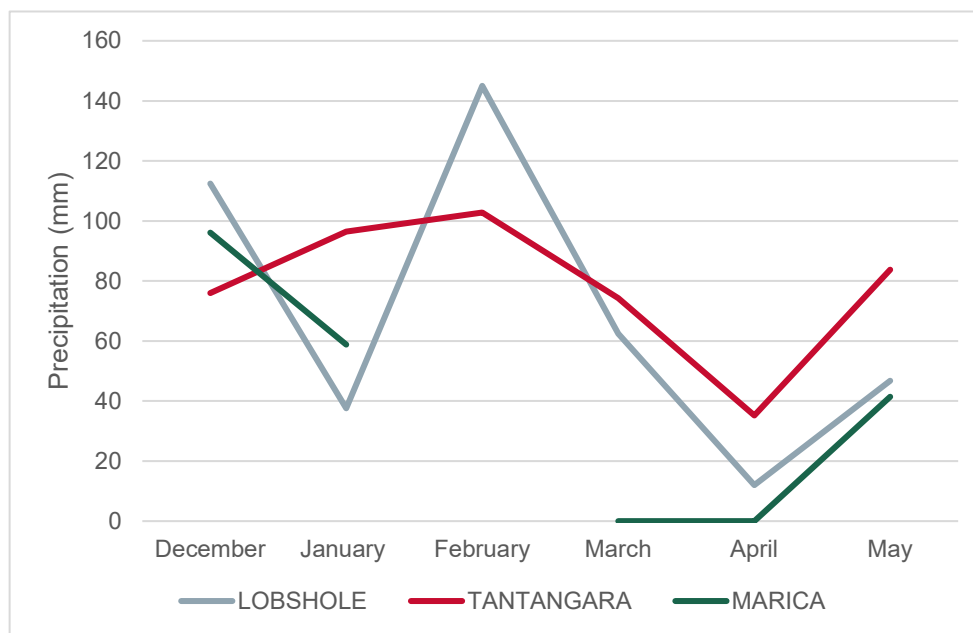


Figure 2-1: Cumulative Rainfall across Lobs Hole, Tantangara and Cabramurra

At each of the three rainfall recording sites (Tantangara, Lobs Hole, and Cabramurra), the highest volume of rain that fell in a single day are as follows:

- 44.2 mm at Lobs Hole – 25 February 2025;
- 39.4 mm at Cabramurra (Marica) – 7 December 2024; and
- 31.8 mm at Tantangara – 1 December 2024.

On the five-day time scale, the heaviest precipitation events were as follows:

- Lobs Hole: 79.8 mm between 7 and 11 February 2025;
- Cabramurra (Marica): 53.4 mm between 11 and 16 January 2025; and
- Tantangara: 69 mm between 12 and 16 January 2025.

**Table 2-1: Weather Conditions Within the Reporting Period**

	Tantangara <sup>2</sup>		Cabramurra (Marica)		Lobs Hole <sup>1</sup>	
Month	Monthly (mm)	LTA	Monthly	LTA	Monthly	LTA
December	76	127.2	96.1	76.3	112.4	94.13
January	96.4	135.87	58.8	146.3	37.6	105.67
February	102.8	47.4		36.47	145	78.8
March	74.3	56.3	0	86.5	62.4	55.6
April	35.2	46.7	0	77.7	12	59.4
May	83.8	47.3	41.4	90	46.8	74.5

1. Lobs Hole long term average rainfall is taken from the Tumbarumba weather station.

2. Tantangara long term average rainfall is taken from the Adaminaby Alpine Tourist Park weather station.

Tantangara and Lobs Hole both reported monthly rainfall totals greater than long term averages 3 months out of the 6 reported whilst Marica reported rainfall conditions greater than the averages only once.

It is noted the onsite rainfall reporting for Marica is understood to vary from the Cabramurra records, with basin overtopping events indicating greater volumes received than at Cabramurra.



2.3. Temperature Data

Figure 2-2 to Figure 2-3: Marica - Minimum and Maximum Temperatures show temperature maximum and minimums across the project at Lobs Hole and Cabramurra weather stations.

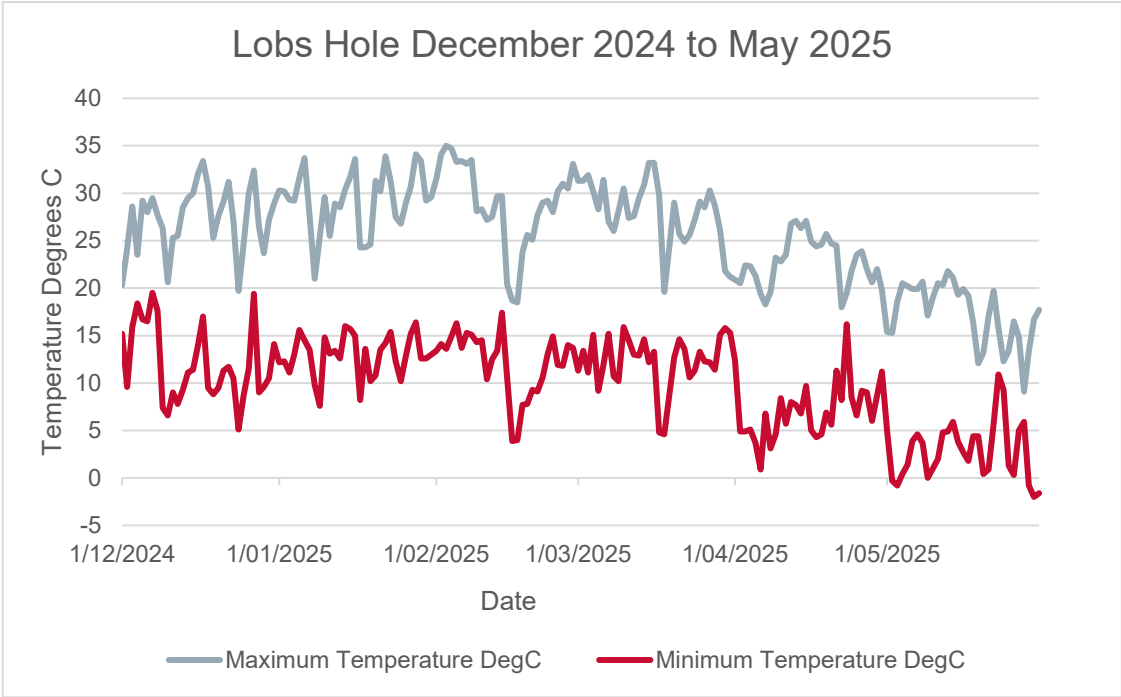


Figure 2-2: Lobs Hole - Minimum and Maximum Temperatures

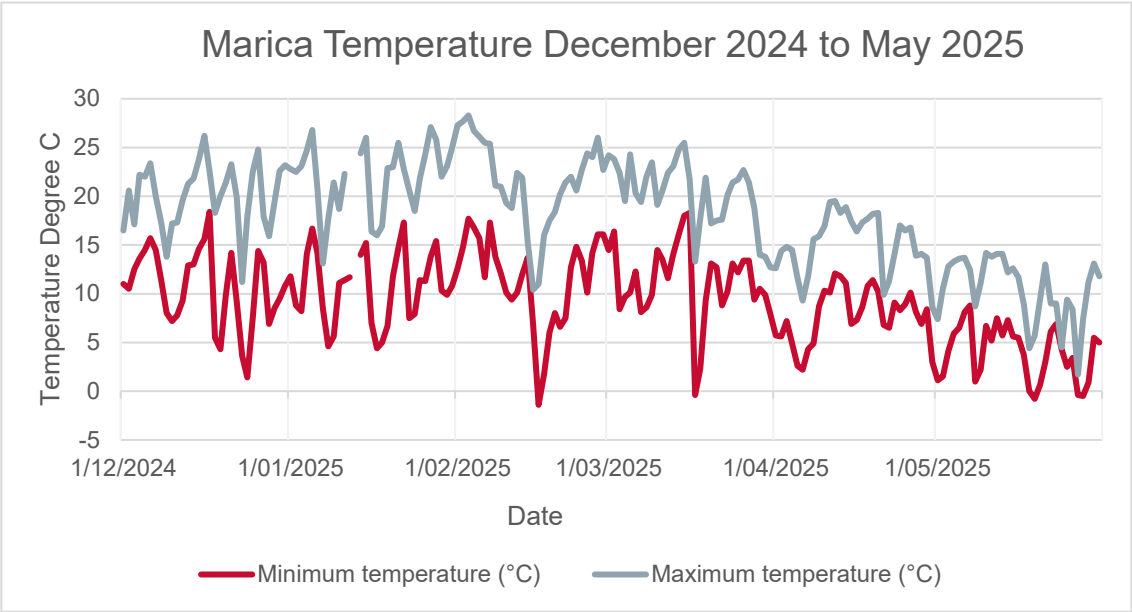


Figure 2-3: Marica - Minimum and Maximum Temperatures

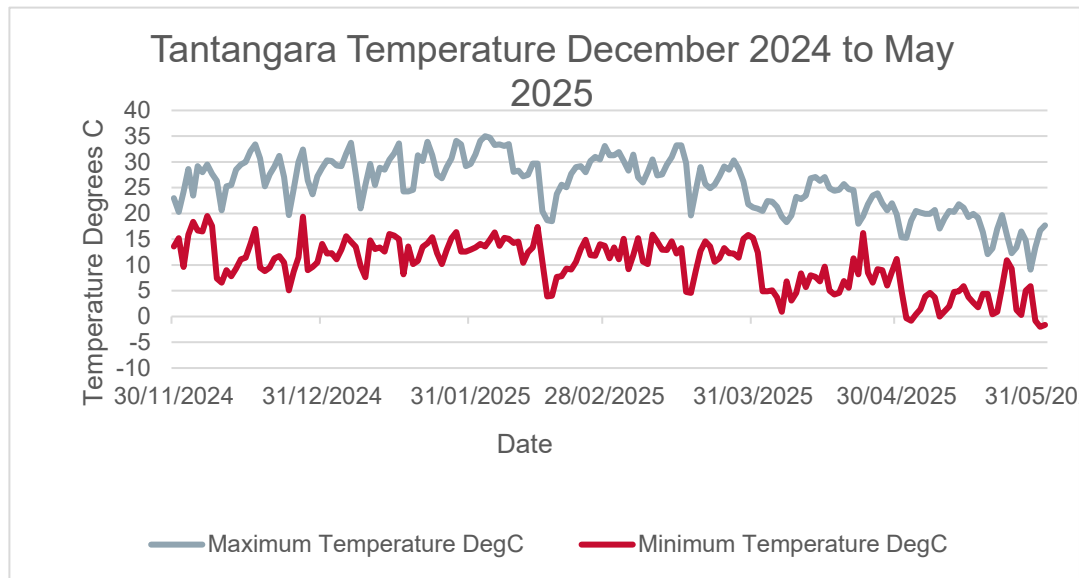


Figure 2-4: Tantangara - Minimum and Maximum Temperatures

Weather conditions observed during the reporting period were typical of seasonal transitions out of the summer weather systems into the cooler autumn conditions typical of the Snowy Mountains. Summer months are expected to include higher maximum temperatures, possibly more isolated storms and longer rainfall events. Autumn conditions typically result in decreasing maximum temperatures and potential rainfall volume reductions across sites.

Lobs Hole, Marica and Tantangara reached mean maximum temperatures of 34.7°C, 28.3°C and 32.5°C respectively with Lobs Hole reporting the highest temperatures of each site across the reporting period.

The elevations in temperature and rainfall volumes are possibly indicators of the El Nino climatic conditions across the National Park.

### 3. MONITORING RESULTS

#### 3.1. Water Quality Monitoring

Water Quality Monitoring results are provided in **Appendix B** and **C** for monthly EPL monitoring events. The sampling work was performed in accordance with:

- S2-FGJV-ENV-PLN-0010 Water Management Plan – Snowy 2.0 Main Works;
- S2-FGJV-ENV-PRO-0048 - Water Monitoring Procedure;
- AS 5667:1 - Water quality- Sampling: Guidance on the design of sampling programs and the preservation and handling of samples;
- AS 5667:4 - Water quality - Sampling: Guidance on the sampling of lakes, natural and manmade;
- AS 5667:6 - Water quality - Sampling: Guidance on the sampling of rivers and streams; and
- AS 5667:11 - Water quality- Sampling: Guidance on the sampling of groundwater.

### 3.2. In Situ Monitoring

Under Section 6 Condition R4.1, the EPA must be notified of any results that exceed, or are outside the range of, relevant water quality trigger values within licenced premises or at the designated EPL monitoring points. Table 3-1 presents a summary of the numbers outside the range of acceptability. Further details are presented in Appendix B.

**Table 3-1: Physio-Chemical Exceedances**

Water Quality Objectives	DO (%)	EC (µS/cm)	pH	Turbidity (NTU)	Comment
Range	90-110	>30 and <350 / <20 and <30 reservoirs	>6.5- <8	<2 >25	
December 2024 to May 2025					
December	26	22	17	11	DO, EC and turbidity have a greater number of exceedances when compared to the previous reporting period.
January	25	33	21	14	Physio-chemical indicators remain consistent with previous reporting periods.
February	38	43	47	27	Periods of dry followed by days of intense rainfall throughout the reporting period are understood to influence the rise in occurrences of physio-chemical parameter exceedances.
March	36	27	38	11	Periods of dry and elevated temperatures resulted in locations reported as dry upon sampling.
April	25	38	39	32	pH and turbidity exceedances were observed to be more frequent this reporting period. Noting the reduction in rainfall recorded throughout the period.
May	31	43	38	49	May included EC exceedances increases across the parameter suite primarily due to lower stream flows, notable animal activities and occasional rainfall events.

Dissolved oxygen (DO), turbidity and pH were prevalent across all water bodies were commonly accompanied by some specific nutrients within the reported samples. This is potentially influenced by observations of reduced water availability, algal presence, plant or animal matter decomposition or animals within the water body.

### 3.3. Groundwater Monitoring

Regular Groundwater monitoring events are undertaken to determine the conditions within the numerous subsurface water systems across the Project. Groundwater quality trigger levels for the Project are outlined in Table C-1 of the Main Works – Groundwater Monitoring Program.

Groundwater level monitoring is undertaken in accordance with EPL21266, the numerous Leachate Detection Procedures (LDP's) and the Water Monitoring Procedure.

Site specific groundwater level triggers as outlined in Attachment B of the Main Works – Groundwater Monitoring Program have been established to monitor whether observed drawdown is greater than construction related predicted drawdown. Groundwater piezometer data from an additional network of boreholes is collected and assessed by SHL.

The Project groundwater network was monitored regularly throughout the reporting period. Fluctuations in EC, turbidity and DO% was most pronounced in bores within proximity to placement activities. Increased sediment load in groundwater bores resulted in the commencement of a bore maintenance program, commencing at Tantangara.

Total and dissolved metals were observed in bores with increased sediment loads. These locations typically reflected sediment influenced water physiochemical characteristics. Increasing nutrient concentrations were reported in numerous groundwater locations adjacent placement areas. The most elevated nutrients were observed to correlate to rainfall events and down gradient locations, indicating a relationship with leachate migration following rainfall events.

#### 3.3.1. Lobs Hole

Lobs Hole's groundwater monitoring bore network predominantly surround the emplacement areas or areas of former spoiling activities. The groundwater monitoring bore analytical exceedances reflect proximity to such activities and the apparent sedimentation build up within some locations. Bores within GF01 were observed to report analytical exceedances at greater concentrations than the remaining areas of Lobs Hole. The specific analytes consistently reported as exceedances are outlined below:

- Ammonia as N;
- Nitrite + Nitrate;
- Nitrite;
- Nitrogen (total);
- Hardness;
- Reactive Phosphorus;
- Phosphorus (Total);
- Arsenic (Dissolved);
- Iron;
- Chromium (III+VI) (dissolved);
- Copper (dissolved);
- Magnesium;
- Nickel (dissolved) and;
- Zinc (dissolved).

### 3.3.2. Tantangara

Tantangara's groundwater bore network consists of six locations surrounding the temporary emplacement area and the permanent spoil emplacement area which is under construction. The bores are reflective of the emplacement area conditions, including heavy sedimentation within the bores. The analytes reported consistently were:

- Ammonia as N;
- Nitrogen (total);
- Nitrite + Nitrate;
- Nitrate;
- Nitrite
- Iron;
- Reactive and total phosphorus;
- Aluminium;
- Arsenic;
- Chromium;
- Copper;
- Lead;
- Magnesium;
- Nickel;
- Silver; and
- Zinc.

### 3.3.3. Marica

Marica's groundwater bore network was altered during the final stages of the reporting period, with the locations being decommissioned as part of the Modification 3 works. The analytical concentrations reported within the bores (prior to decommissioning) remained largely stable, with dissolved metals and select nutrients representing the majority of the consistent exceedances. Consistently exceeding analytes have been included below:

- Ammonia as N;
- Nitrogen (total);
- Nitrate;
- Nitrite + Nitrate
- Iron;
- Reactive and total phosphorus;
- Aluminium;
- Arsenic;
- Chromium;

- Copper;
- Lead;
- Nickel;
- Silver; and
- Zinc.

### 3.4. Surface Water

Routine surface water monitoring is undertaken in accordance with CoA Condition 31 and Environmental Protection Licence 21266 (EPL - 21266) to determine if project activities may be promoting negative impacts to receiving water quality and the adopted Water Quality Objectives (WQO).

The WQOs are specified in Table 2-2 of the Main Works – Surface Water Monitoring Program.

#### 3.4.1. Talbingo and Tantangara Reservoirs

Analyte concentrations that exceed or are outside the range of relevant water quality trigger values are presented in Appendix B.

Exceedances are commonly the below analytes:

- Total Phosphorus;
- Nitrite + Nitrate as N;
- Ammonia;
- Total Nitrogen;
- Thermotolerant Coliforms;
- Aluminium (dissolved);
- Chromium (III+VI); and
- BOD.

#### 3.4.2. Lobs Hole Surface Water

The predominant water body within the Lobs hole region is the Yarrangobilly River (Appendix B). It along with its tributaries constitute the EPL surface water sampling locations within the Lobs Hole area. Generally, analytical results within the reporting period were less than, or within, relevant water quality trigger values except for:

- Total Phosphorus
- Nitrite + Nitrate as N;
- Ammonia;
- Nitrogen (total);
- Arsenic (dissolved)
- Aluminium (dissolved);
- Chromium (dissolved);

- Copper (dissolved)
- Iron (dissolved);
- Lead (dissolved);
- Nickel (dissolved).

#### 3.4.3. Marica Surface Water

The predominant water body within the Marica area is the headwaters of the Eucumbene River (excluding the leachate basins). This body of water saw exceedances in the following:

- Total Phosphorus;
- Reactive Phosphorous;
- Nitrite + Nitrate as N;
- Chromium (dissolved); and
- Aluminium.

#### 3.4.4. Tantangara Surface Water

The predominant water bodies within Tantangara (excluding the reservoir) are the Nungar and Kelly's Plain Creeks (Appendix A). The Tantangara surface water bodies reported exceedances in the following:

- Total Phosphorus
- Nitrite + Nitrate as N;
- Nitrogen (total);
- Iron (dissolved)
- Aluminium (dissolved);
- Chromium (dissolved);and
- Iron (dissolved).

#### 3.4.5. Rock Forest Surface Water

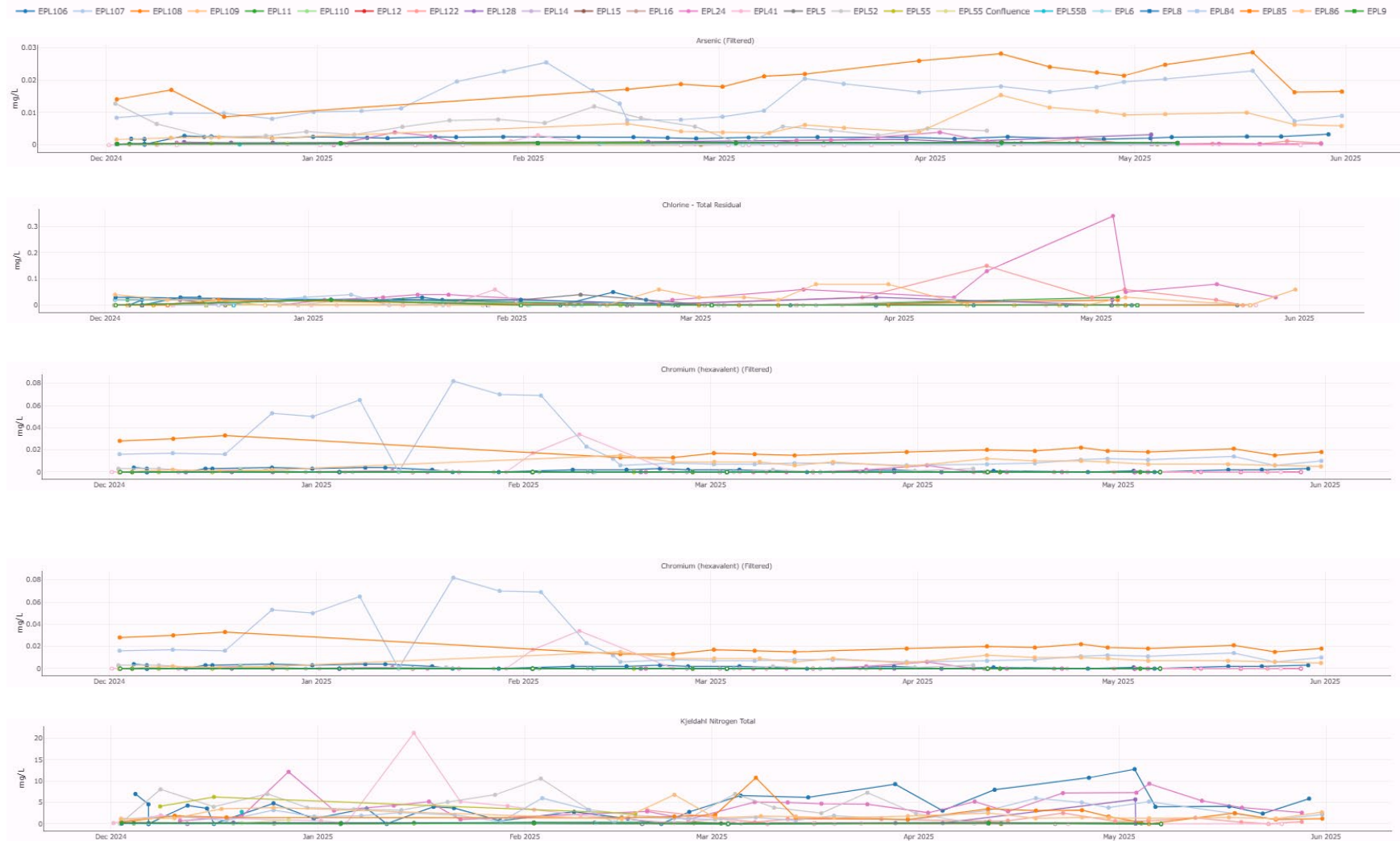
The predominant water body within Rock Forest is Cameron's Creek (**Appendix A**). Two samples are collected, one from upstream and one from downstream of the Snowy 2.0 disturbance areas to make up the surface EPL sampling locations.

The monitoring results demonstrate that the water quality in the Rock Forest has consistency across multiple EPL monitoring events with the exceedances likely to be related to the decades of agricultural use. High nitrogens are likely caused by fertiliser application and low rates of natural vegetation recovery throughout the grazing pasture. This is supported by the lack of any spoiling activities occurring at the location throughout the reporting period and EPL36 (up gradient) reporting elevations of such analytes.

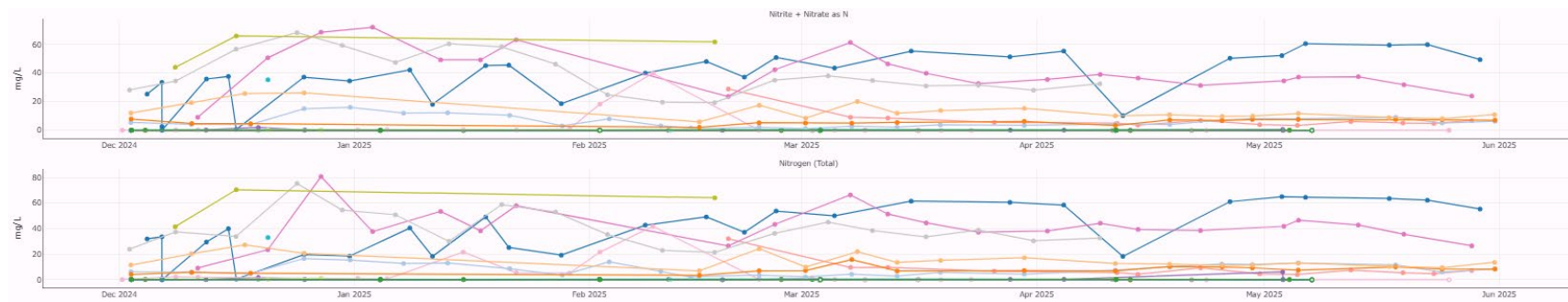
Analyte concentrations that exceed, or are outside the range of relevant water quality trigger values are presented in **Appendix C**.

## 3.5. Trends

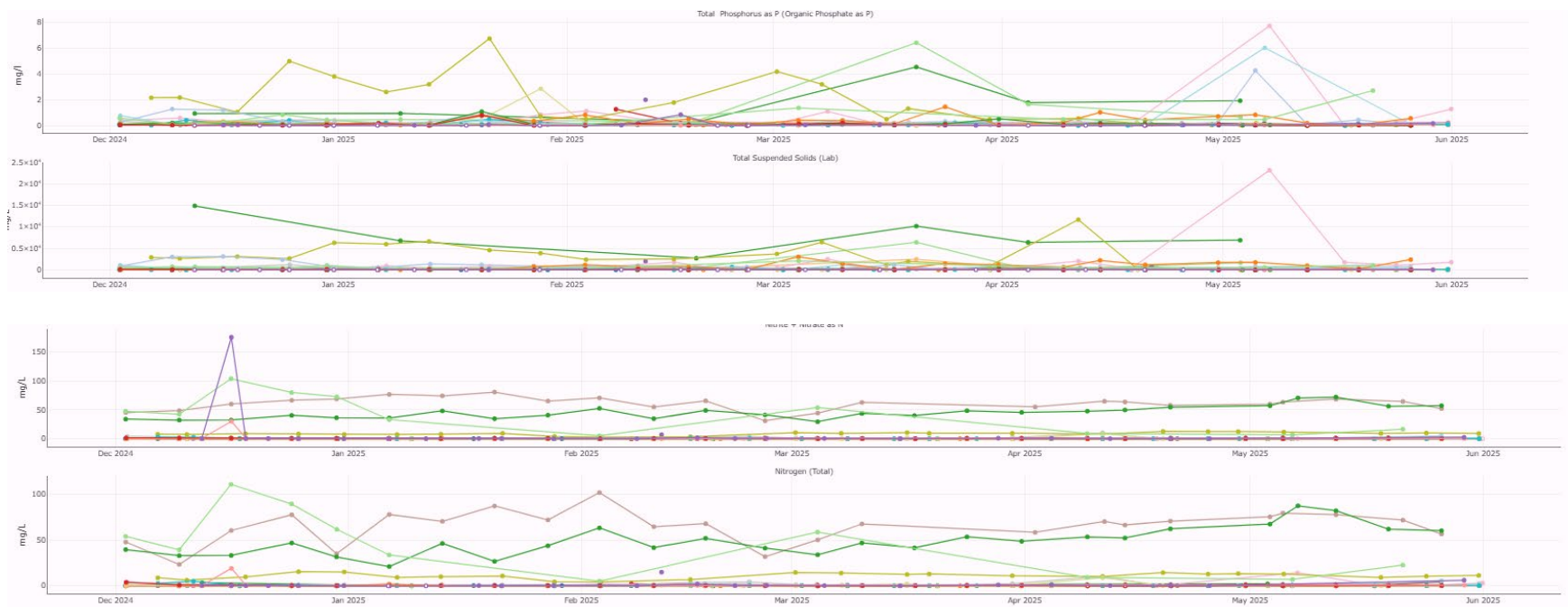
### 3.5.1. Lobs Hole – Surface Water







### 3.5.2. Lobs Hole – Groundwater





### 3.5.3. Tantangara – Groundwater

● EPL103 ● EPL104 ● EPL105 ● EPL68 ● EPL69 ● EPL70



### 3.5.4. Marica – Surface Water



### 3.5.5. Summary

Lobs Hole locations were observed to respond to the significant rainfall volumes occurring in the earlier stages of the reporting period with an observable upwards trends reported for hardness and select heavy metal concentrations. Nutrients such as nitrate, nitrite and total nitrogen appeared to trend upwards alongside total phosphorous. Groundwater locations across Lobs Hole reported relatively stabilised analytical trends throughout the reporting period. Increases in nutrients in groundwater monitoring sites adjacent to spoil emplacement areas in Lobs Hole, Ravine Bay and Tantangara were noted, although some of these trends are potentially attributable to surface water ingress, high sediment loads and seasonal variation.

Overall, the Tantangara and Marica locations were potentially stable across the reporting period, noting rainfall events saw slight ballooning during times of prolonged rainfall. Hardness, and nutrient concentrations were the most observable increases.

### 3.6. EPA Notifiable Over toppings

Event based wet weather overtopping water quality monitoring is undertaken in accordance with the SWMP Trigger Action Response Plan (TARP 2) to monitor stormwater overtopping sediment basin discharges. Sediment basins for the Project have been designed to meet, at a minimum, the 85<sup>th</sup> percentile 5-day rainfall volume (mm).

During the reporting period, occurrences of rainfall exceeding site design capacities of the 85<sup>th</sup> percentile 5 – day rainfall depths are listed below:

- 6 December 2024 – Lobs Hole - EPL106 overtopped following a total of 153 mm of rainfall since 27 November 2024.
- 7 December 2024 – Lobs Hole - Pad 2 overtopped following 160 mm of rainfall since 27 November 2024.
- 7 December 2024 – Lobs Hole - GF01 Basin overtopping 160 mm of rainfall since 27 November 2024.
- 7 December – 8 December 2024 – Marica MC03 and MC02 respectively overtopped following 71 mm of rainfall since 2 December 2024.
- 10 February 2025 – Lobs Hole – F3a, F5a, F8.5 and F9 overtopped following 51 mm of rainfall since 5 February 2025.
- 10 February 2025 – Marica – MC01, MC02 and MC03 overtopped following 75 mm of rainfall in 24 hours.
- 11 February 2025 – Tantangara – CH300 and Batch Plant overtopped following 57.7 mm of rainfall since 6 February 2025.
- 11 February 2025 – Lobs Hole – F8.5, MYLS and 10.5 overtopped following 89.9 mm of rainfall since 5 February 2025.
- 14 February 2025 – Lobs Hole – F1 and F3b overtopped following 135 mm of rainfall since 5 February 2025.
- 14 February 2025 – Marica – EPL101 overtopped following 78 mm of rainfall in the 10 hours previous.
- 23 May 2025 – Tantangara – Batch plant and CH1000 basins overtopped following 49.4 mm of rainfall since

- 27 May 2025 – Lobs Hole – Basin 10b overtopped following a total of 41.6 mm of rainfall since 22 May 2025.
- 28 May 2025 – Lobs Hole – EPL84 overtopped following a total of 45 mm of rainfall since 22 May 2025.

## 4. DISCUSSION

Monitoring of all water locations occurred between 1 December 2024 and 31 May 2025 across Lobs Hole, Tantangara, Marica and Rock Forest.

As previously mentioned throughout this report, climate variations and their impacts on water quality were understood to influence the surface and groundwater water monitoring locations across the sites during the reporting period.

A small number of surface water monitoring locations are understood to reflect ephemeral characteristics including irregular stream flows (typically resulting from rainfall events or incidents across Projects), period of dry or no water and those locations immediately down gradient of surface water migration locations. The reliance on external events for water and flow rates resulted in occasional monitoring locations reported as dry or without representative water quantity for sampling.

High water temperatures have contributed to the increased algal growth and green discolouration of the Talbingo and Tantangara Reservoirs consistent with historical observations made by the Project. The algal presence was typically accompanied by increases to nutrients and occasional thermotolerant coliform accompaniment. Lower reservoir water levels, increased intensity of the rainfall events and the higher temperatures separating such events further promotes the consistent growth of algal blooms.

Increases in select nutrient exceedances were observed across the numerous water receptors was typically reported in locations within immediate proximity to spoil emplacement areas, received overland water flow stemming from emplacement areas or roadway runoff. The exceptions to the observations include leachate basin concentrations and those locations comprised by smaller streams with abundant animal and plant matter within the body.

Increases to reported thermotolerant coliform units are potentially related to the ability for some coliform strains within the subgroup to grow in the environment (not necessarily related to faecal matter) and for the large numbers of animal matter (bird and horse faecal matter or decomposition) to contribute to water sample volumes. This circumstance may arise when collecting samples from shorelines or stream banks containing animal faecal matter (bird and horse faecal matter), have animals present within the waterbody or in a state of decomposition. Due to the extremely low levels within the reservoir, notes of animal matter have been identified in photographs collected during sampling events. These circumstances may influence the reported nutrient concentrations due to the decomposition of plant and animal matter, warmer temperatures and potential flow reductions and may contribute to some of the broader nutrient fluctuations reported during the period.

Where groundwater monitoring has revealed nutrient exceedances adjacent to emplacement areas, extraction and treatment efforts will be allocated in line with our obligations to prevent harm to the environment,

Marica surface monitoring locations remained stable throughout the reporting period, as the new basins for the Modification 4 works were constructed. Exceptions given to the leachate basin locations reporting greater differences between monitoring events, which is thought to be influenced by increasing blasting volumes resulting in larger nutrient concentrations, separating these structures from other such surface water locations.



The Tantangara, Marica and Rock Forest stream-based locations are primarily located above and below gradient of sealed or similar surfaced roadways, with exception to those located at confluences. All locations are anticipated to be influenced by contributing nutrient rich saturation zones, hooved animal disturbance and fluctuating states of dry and flood. Examples include results within locations EPL31 (up gradient of works), EPL34 (up gradient of works) and EPL35 which all contain minor nutrient concentrations irrespective of being above or below gradient to the project works.

Overall, the various Tantangara surface water locations were potentially stable across the reporting period, noting rainfall events saw slight ballooning during months such as January. Those analytes with observable trending results were influenced by rainfall events across the period, which may have influenced the observable increasing trends. Ammonia was observed to report a slight increase in overall trends throughout the period. Dissolved manganese saw an overall reduction in analytical trends until events at stages throughout the period initiated a possible upwards trend. Nitrate concentrations saw slight increases overall, with ballooning occurring during the rainfall periods. Reactive Phosphorous was observed to increase slightly with a consistent ballooning during January.

## 5. RECOMMENDATIONS

Based on the information contained within this report, consideration for the following recommendations may provide assistance with the on-going management of water across the Project.

- i. Deploy automatic loggers within key reservoir locations, focusing on additional analytes such as Nitrate.
- ii. Deploy maintenance schedule for sediment laden groundwater bores regularly.
- iii. Install operational extraction pumps in suitable locations.
- iv. Allocate resources to manage data for water across the Project.







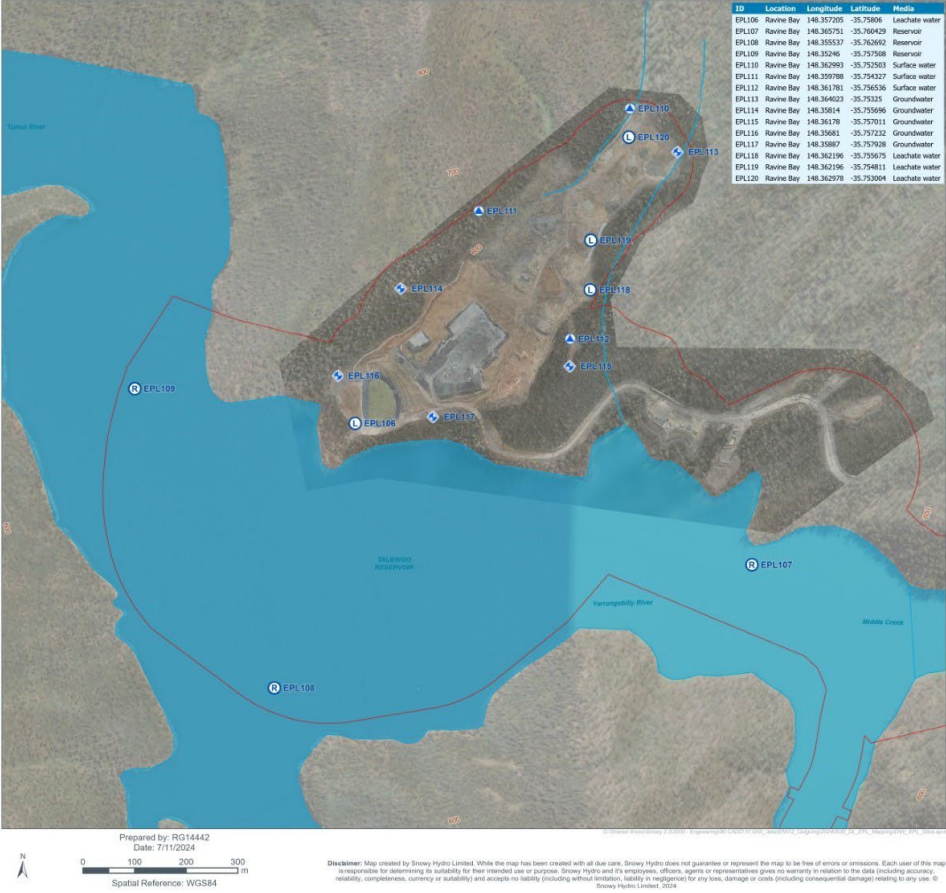
EPL Locations  
GF01

- Construction Envelope
- Groundwater
- Surface water
- Leachate water
- Access / Construction Tunnel
- Hydraulic Tunnel
- Primary Road
- Arterial Road
- Drainage
- Major Contour (50m)



Credits: Data used is owned by Snowy Hydro Limited except as follows:  
Roads and Drainage sourced from State of New South Wales, represented by  
The Department of Customer Services, Spatial Services  
Epi, COIAR, Epi, Geoscience Australia, NASA, NOAA, USGS, Masar  
Scale is at A3 paper size where shown

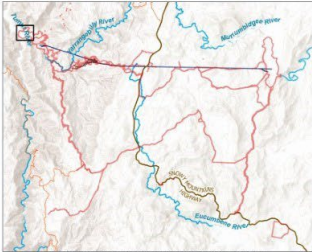




snowyhydro

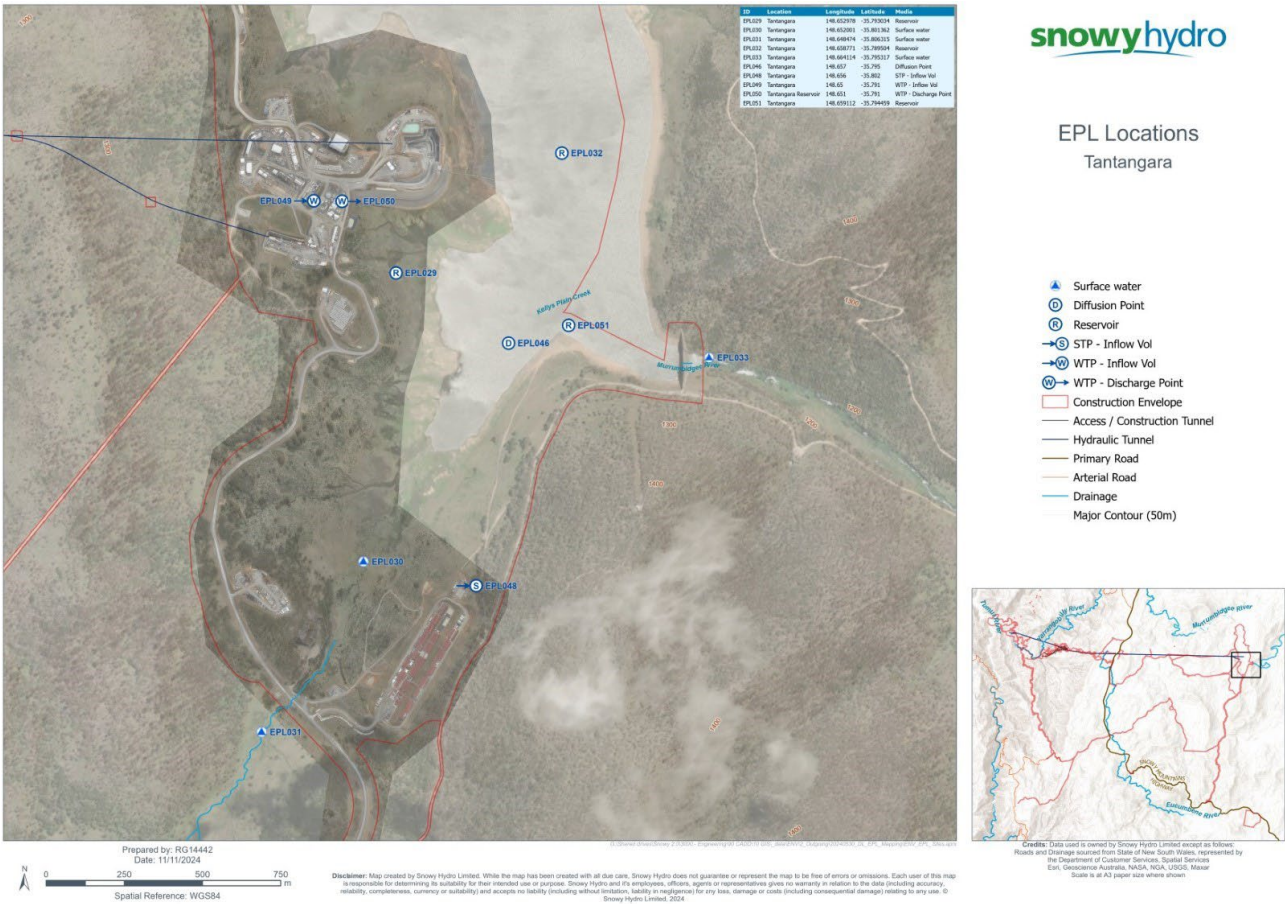
EPL Locations  
Ravine Bay

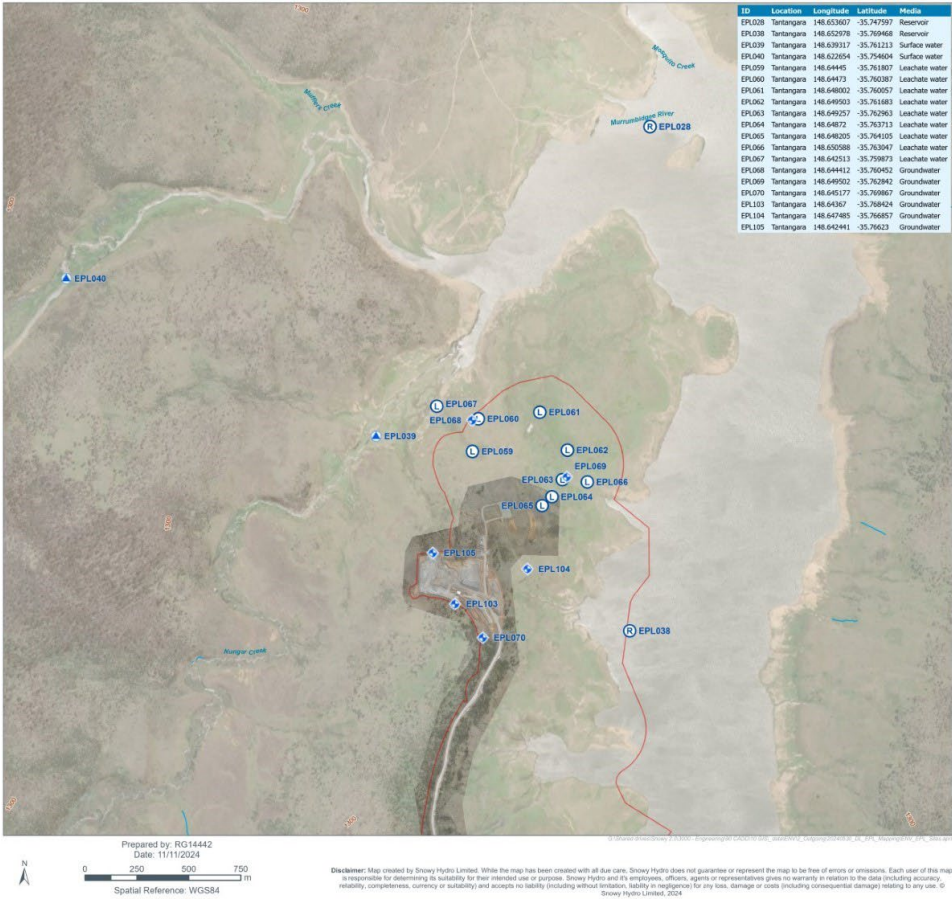
- Groundwater
- Surface water
- Leachate water
- Reservoir
- Construction Envelope
- Access / Construction Tunnel
- Hydraulic Tunnel
- Primary Road
- Arterial Road
- Drainage
- Major Contour (50m)



Credits: Data used is owned by Snowy Hydro Limited except as follows:  
Roads and Drainage sourced from State of New South Wales, represented by the Department of Customer Services, Spatial Services  
Elev, Geoscience Australia, NASA, NOAA, USGS, Metar  
Scale is at A3 paper size where shown

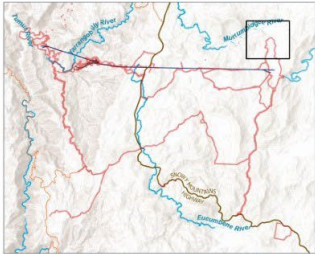
TANTANGARA





EPL Locations  
Tantangara Emplacement

- Groundwater
- Surface water
- Leachate water
- Reservoir
- Construction Envelope
- Access / Construction Tunnel
- Hydraulic Tunnel
- Primary Road
- Arterial Road
- Drainage
- Major Contour (50m)



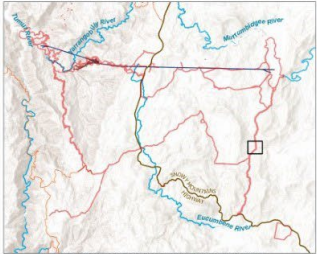
Credits: Data used is owned by Snowy Hydro Limited except as follows:  
Roads and Drainage sourced from State of New South Wales, represented by the Department of Customer Services, Spatial Services  
ENR, CGAR, ENR, Geoscience Australia, NASA, NOAA, USGS, Major  
Scale is at A3 paper size where shown





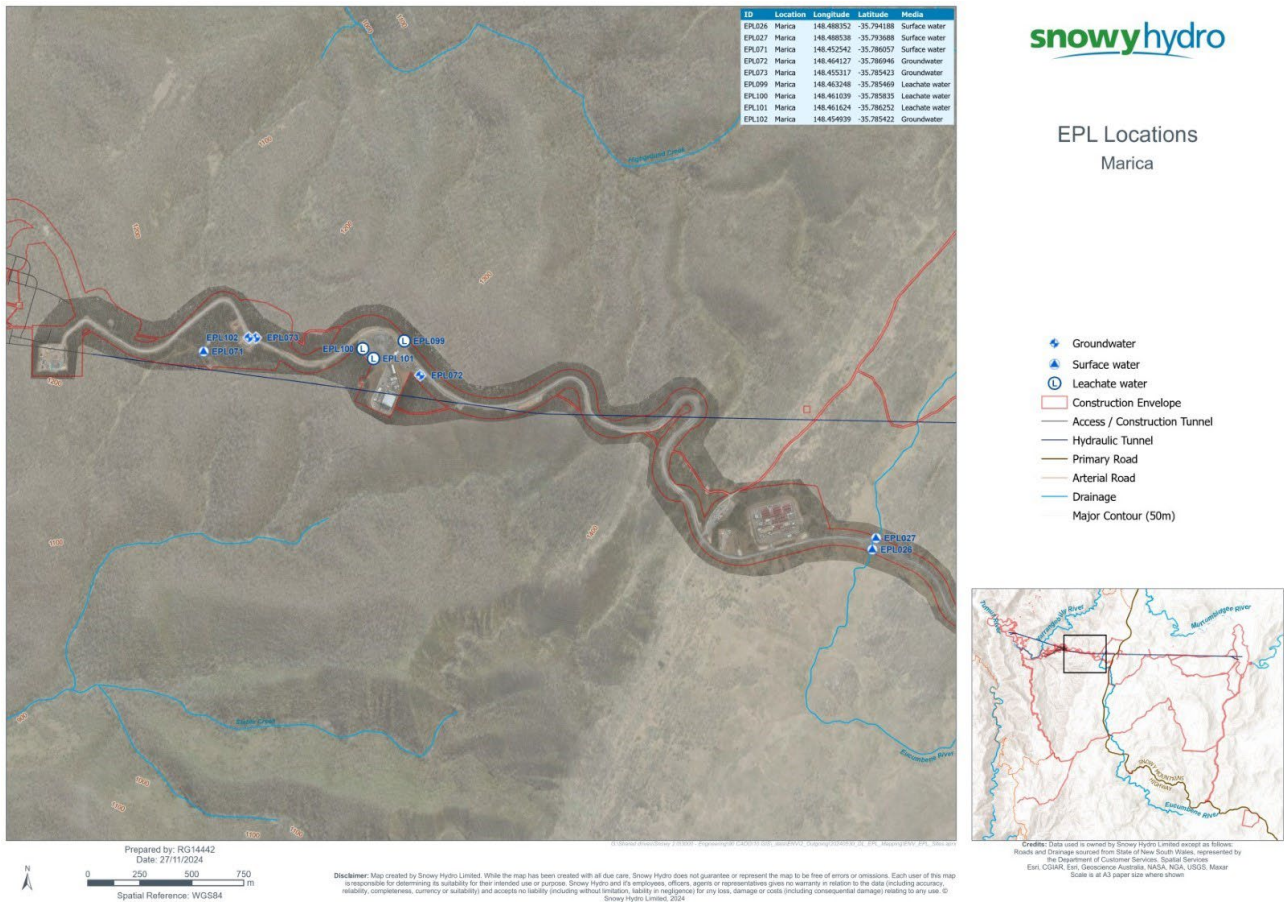
EPL Locations  
Nungar Creek

- ▲ Surface water
- Construction Envelope
- Access / Construction Tunnel
- Hydraulic Tunnel
- Primary Road
- Arterial Road
- Drainage
- Major Contour (50m)



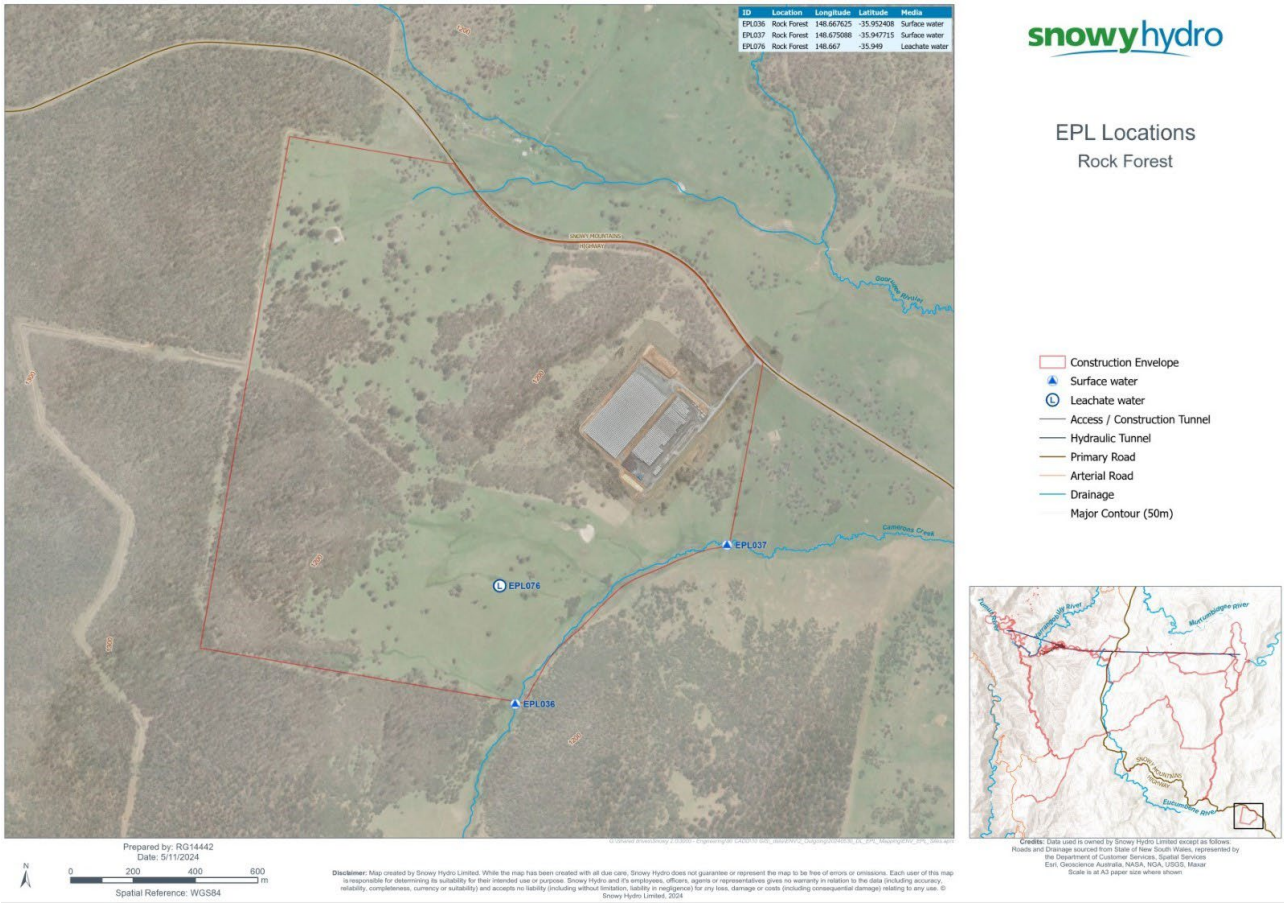
Prepared by: RG14442  
Date: 27/11/2024  
Spatial Reference: WGS84  
Disclaimer: Map created by Snowy Hydro Limited. While the map has been created with all due care, Snowy Hydro does not guarantee or represent the map to be free of errors or omissions. Each user of this map is responsible for determining its suitability for their intended use or purpose. Snowy Hydro and its employees, officers, agents or representatives gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence for any loss, damage or costs (including consequential damage) relating to any use. © Snowy Hydro Limited, 2024.

MARICA





ROCK FOREST





APPENDIX B – EPL RESULTS TABLES

2024 EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring December 2024

Table 1: Surface Water Quality Data

River and Minor Watercourse

Date and Time		EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
Temp (°C)	DO (%)			DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)				
				-	-	30-150	-	30-250	-	6.5-8.6	-	2-25	
21/12/2024, 12:48 pm		EPL5	Tarrangoberry River, upstream of the exploratory tunnel and construction pad	21.21	140.3	12.45	60	39	7.66	75	9.13	Clear skies, rain in recent days	This location is upstream of works and is therefore representative of background conditions.
21/12/2024, 1:15 pm		EPL6	Wallaces Creek, upstream of Tarrangoberry River and Wallaces Creek confluence	21.42	150.0	13.25	63	54	7.64	121	2.02	Clear skies, rain in recent days, turbidity very low	This location is consistent with background conditions for December 2024.
21/12/2024, 2:48 pm		EPL8	Tarrangoberry River, downstream of Lick Hole Gully	22.78	148.2	12.78	75	48	8.02	139	8.15	Clear sunny day, rain in recent days	Elevated DO is consistent with the background conditions for December 2024, and elevated pH within the historical ranges.
21/12/2024, 3:34 pm		EPL9	Tarrangoberry River, downstream of the accommodation camp and upstream of Tallings Reservoir	22.99	134.6	11.54	71	46	7.84	151	8.19	Clear skies, rain in recent days	Elevated DO is consistent with the background conditions for December 2024.
21/12/2024, 4:02 pm		EPL12	Tarrangoberry River, immediately downstream of portal pad	21.04	131.7	11.72	59	38	7.82	105	8.33	Clear skies, rain in recent days	Elevated DO is consistent with the background conditions for December 2024.
21/12/2024, 1:35 pm		EPL14	Tarrangoberry River, downstream of road construction areas	21.35	133.1	10.9	62	41	7.78	123	7.04	Clear skies, rain in recent days, turb very low	Elevated DO is consistent with the background conditions for December 2024.
21/12/2024, 1:52 pm		EPL15	Tarrangoberry River, downstream of road construction areas	21.74	140.3	12.33	62	41	7.76	120	7.23	Clear skies, rain in recent days, Turb very low	Elevated DO is consistent with the background conditions for December 2024.
21/12/2024, 3:48 pm		EPL16	Tarrangoberry River, downstream of road construction areas	23.04	125.6	10.76	71	46	7.72	139	9.39	Clear skies, rain in recent days	Elevated DO is consistent with the background conditions for December 2024.
11/12/2024, 8:47 am		EPL24	Tarrangoberry River tributary (Watercourse 2), directly downstream of road	16.6	59.2	5.37	253	165	7.24	56	42.2	Clear sunny day.	Low DO and elevated turbidity could be attributed to the 73.8mm falls flow received over the last days.
6/12/2024, 9:15 am		EPL26	Escumene River, downstream of Marica Road	15.59	109.8	13.37	58	25	7.35	112	2.48	Clear water, no odour, high flowing, rain event overnight, a bit turbulent water	All readings are within WQO limits.
6/12/2024, 9:25 am		EPL27	Escumene River, upstream of Marica Road	12.22	148.0	15.66	33	22	7.22	117	3.81	Clear water, no odour, high flowing, rain event overnight, a bit turbulent water.	This location is upstream of works and is therefore representative of background conditions.
7/12/2024, 11:01 am		EPL30	Melby Plain Creek, downstream of accommodation camp and laydown areas	17.34	104.4	10.02	49	32	7.39	120	27.3	100 mm rain so far in the week	Elevated turbidity could be attributed to the 73.8mm received over the last few days.
7/12/2024, 10:47 am		EPL31	Melby Plain Creek, upstream of accommodation camp and laydown areas	17.75	100.6	9.57	36	30	7.37	122	8.0	Cloud and rain, heavy rain, over 100mm last few days	All readings are within WQO limits.
7/12/2024, 10:28 am		EPL33	Murrumbidgee River, downstream of Tarrangoberry reservoir outlet	20.04	106.8	9.71	28	17	7.61	125	0.4	Cloud and rain, heavy rain, over 100mm last few days	Low EC aligns with historical data for December 2024.
7/12/2024, 9:42 am		EPL34	Nunger Creek, upstream of Tarrangoberry Road	18.4	95.7	8.86	36	23	7.71	81	17.0	Cloud and rain, heavy rain, over 100mm last few days	This location is upstream of works and is therefore representative of background conditions.
7/12/2024, 9:39 am		EPL35	Nunger Creek, downstream of Tarrangoberry Road	18.06	88.9	8.4	21	14	7.19	115	16.7	Cloud and rain, heavy rain, over 100mm last few days	Low EC is consistent with background conditions. Low DO is being monitored to ensure variance is attributed to natural fluctuations.
22/12/2024, 11:51 am		EPL36	Cameroons Creek, upstream of works in Rock Forest	20.16	65.9	5.97	49	32	7.25	199	36.8	Clear sunny day. Water is very stagnant. Recent construction in paddock nearby. Water is clear, no odour, slightly dark brown.	This location is upstream of works and is therefore representative of background conditions.
22/12/2024, 11:17 am		EPL37	Cameroons Creek, downstream of works in Rock Forest	22.7	67.5	7.53	61	40	7.45	219	27.6	Clear sunny day. Water is very low flow. Brown run turbid. No odour. Recent works started nearby at R.	Low DO and elevated turbidity are consistent with background conditions for this location in December 2024.
16/12/2024, 9:47 am		EPL52	GF02 leachate basin	24.71	118.1	9.76	1170	746	7.09	141	12.4	Sunny day, clear water, no odour, algae growing in the basin	High DO and EC are due to runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters were met.
-		EPL53	GF02 surface water upstream east	-	-	-	-	-	-	-	-	-	Dry site, no flow.
-		EPL54	GF02 surface water upstream west	-	-	-	-	-	-	-	-	-	Dry site, no flow.
16/12/2024, 10:09 am		EPL55	GF02 surface water downstream	20.67	63.0	5.63	1230	766	6.87	140	4.20	Sunny day, clear water, no odour, considerable flow	Low DO and high EC can be attributed to recent rain events causing increased runoff in the area.
7/12/2024, 12:31 pm		EPL67	Nunger Creek surface water downstream west from Tarrangoberry emplacement area	20.67	104.4	9.72	23	15	7.44	131	16.6	Cloud and rain, heavy rain, over 100mm last few days	Low EC is within the historical range and is consistent with background conditions for this location for December 2024.
6/12/2024, 10:49 am		EPL71	Surface water downstream of Marica emplacement	18.92	124.0	11.59	96	62	7.46	153	92.4	Rainy day, no odour, turbid water, no flowing	Elevated turbidity could be attributed to the 56.2mm received over the last days.
10/12/2024, 12:22 pm		EPL84	FB Basin	24.99	63.0	5.2	557	357	6.71	101	1000	Clear, sunny day. Turb is greater than 1000mu	High pH, EC, and turbidity due to runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters were met.
10/12/2024, 1:55 pm		EPL85	MW07 Basin	26.04	123.5	9.95	675	433	9.14	43	1000	No odour, turbid, not suitable for reuse	High DO, EC, pH, and turbidity are due to runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters were met.
10/12/2024, 12:29 pm		EPL88	LM003 Basin	24.66	87.3	7.23	1140	732	6.11	113	109	Clear, sunny day.	High DO, EC, pH, and turbidity are due to runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters were met.

2024 EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring December 2024

Table 2: Reservoir Water Quality Data

Tabligos and Tarrangoberry Reservoirs

Date and Time			Water Quality Objectives (see note 2)								Field Comments	Context
EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)			
			-	-	30-150	-	30-250	-	6.5-8.6	-	2-25	
4/12/2024, 9:35 am	EPL10	Tabligos Reservoir, downstream of road works and upstream of water intake point	23.70	110.1	9.5	75	48	7.84	120	0	Clear day, heavy rain yesterday, multiple rain events recently. Turbidity incorrect	Elevated DO and EC are consistent with background conditions in the Tarrangoberry River for December 2024, low turbidity aligns with the historical ranges.
4/12/2024, 9:38 am	EPL11	Tabligos Reservoir, downstream of outlet	23.69	115.7	9.8	75	48	7.83	115	0.6	Clear day, heavy rain yesterday, multiple rain events recently. Turbidity reading much lower than expected, likely incorrect.	Elevated DO and EC are consistent with background conditions in the Tarrangoberry River for December 2024, low turbidity aligns with the historical ranges.
15/12/2024, 3:02 pm	EPL28	Tarrangoberry Reservoir, upstream of works in the mouth of the Murrumbidgee River	25.6	107.2	8.76	55.3	23	7.62	120.7	5.9	Clear sunny day with minimal wind. Shallow depth with vegetation growth present. No visible algae or odour. Comets present in the direct vicinity of the sampling point.	Elevated EC is consistent with background conditions in the Tarrangoberry River for December 2024.
29/12/2024, 11:56 am	EPL29	Tarrangoberry Reservoir, downstream of works area and upstream of lower Murrumbidgee River	20.69	62.4	5.6	24	16	7.92	141	19.1	Clear sunny day. No boat available. Sample taken from edge. Windy increasing, turb increased at edge of lake	Low DO remains with the historical data.
29/12/2024, 11:41 am	EPL32	Tarrangoberry Reservoir, Tarrangoberry Intake, downstream of construction works	21.49	56.5	4.99	29	19	7.89	164	12.6	Clear sunny day. No boat available. Sample taken from edge. Windy edge of lake increasing turb.	Low DO remains with the historical data.
29/12/2024, 10:52 am	EPL38	Tarrangoberry Reservoir, variable location dependent on tide and reservoir levels. Between the emplacement area and the ancillary facilities for emplacement activities	18.96	65.6	5.9	24	16	6.28	245	7.0	Sunny day.	Low DO and pH align with the historical data for this location in December 2024.
29/12/2024, 9:40 am	EPL39	Confluence of Nunger Creek and Tarrangoberry Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	18.24	61.6	6.05	28	17	6.03	240	9.4	Sunny day.	Low DO and pH align with the historical data for this location in December 2024.
21/12/2024, 11:59 am	EPL40	Confluence of the upper Murrumbidgee River and Tarrangoberry Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	20.3	94.4	8.71	28.1	19	7.63	176.1	4.26	Sunny clear day with minimal wind. Algae and aquatic plant life present. Visible sediment. No odour or pH. Reservoir level 123%, only accessible via shore.	All readings are within WQO limits.
29/12/2024, 11:01 am	EPL46	Tarrangoberry Reservoir, effluent outlet discharging into Tarrangoberry Reservoir from Tarrangoberry STP/PWTP	20.56	60.6	5.44	62	40	7.86	164	0.4	Clear sunny day. No boat available. Sample taken from edge.	Elevated EC and low DO levels, likely resulting from decreased water levels and increased organic matter, were observed. These locations will be closely monitored during the next sampling round.
29/12/2024, 11:08 am	EPL51	Tarrangoberry Reservoir, downstream of Tarrangoberry STP/PWTP effluent outlet	20.7	55.1	4.94	29	19	7.40	181	3.8	Clear sunny day. No boat available. Sample taken from edge.	Low DO levels, likely resulting from decreased water levels and increased organic matter, were observed for December 2024.

Table 3: Treated Water Quality Data

Tabligos

		Temp (°C)									DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)					
											20	300	1500	300	6.5-8.6							
Date and Time	EPL Site ID	Location Description											Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
11/20/2024, 9:37 am	EPL41	Lick Hole STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tabligos Reservoir.											20.1	64.3	5.03	10	12	7.37	183	101	NTU: reading error. Water crystal clear, samples warm - water run through beluga	No water was being discharged at the time of sampling.

Table 4: Treated Water Quality Data

Tarrangoberry

Water Quality Objectives (see note 3)											
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments
			-	-	30-150	-	30-250	-	6.5-8.6	-	
11/12/2024, 2:04 pm	EPL50	Tarrangoberry STP/PWTP First Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tarrangoberry Reservoir.	20.1	91.6	8.32	79.3	57	8.4	212.1	2.75	No odour or discolouration. BD unit had been running for approx 2 hours prior to retrieving sample.  pH readings will be closely monitored, however no water was being discharged at the time of sampling.

2024 EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring December 2024

Table 5: Groundwater Quality Data

GF02 Surface Water and Groundwater

EPL2 - Tarrangoberry Water and Groundwater			Water Quality Objectives (see note 1)								Field Comments		Context
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)			
			-	-	-	30-150	-	30-250	-	6.5-8.6			-
9/12/2024, 10:08 am	EPL58	GF02 groundwater upstream east	15.55	28.8	2.87	238	155	7.17	72	20.6	SW: 20.56m, sunny day, turbid water, no odour	All readings are within WQO limits.	
9/12/2024, 11:03 am	EPL57	GF02 groundwater upstream west	15.99	14.6	1.45	247	160	7.81	84	55.8	SW: 15.54 m, sunny day, turbid water, no odour	All readings are within WQO limits.	
9/12/2024, 11:52 am	EPL50	GF02 groundwater downstream	16.05	17.6	1.73	870	562	6.02	110	150	SW: 6.26 m, sunny day, turbid water, no odour	Elevated EC is generally consistent with historical range for this location. Low pH will be monitored however borehole pump extraction method is in the process of being stopped.	
21/12/2024, 10:57 am	EPL68	Tarrangoberry groundwater downstream West	15.08	67.9	6.64	18	12	5.24	284	1.5	SW: 3.88m (top of casing). Clear sunny day. Pump almost set up for extraction. Water is clear, no odour.	Low pH and EC are generally consistent with previous results in the last month. These conditions are following expected changes due to altered climatic conditions.	
21/12/2024, 10:42 am	EPL69	Tarrangoberry groundwater downstream East	16.60	84	0.17	32	21	5.62	279	2.5	SW: 2.88m (top of casing). Clear sunny day. Ongoing ground disturbance nearby due to PSE. Water is not turbid, no odour.	Low pH is generally consistent with the historical data. These conditions are following expected changes due to altered climatic conditions.	
21/12/2024, 9:04 am	EPL70	Tarrangoberry groundwater upstream	16.97	58.3	5.63	300	70	6.33	236	67.9	SW: 6.07m (top of casing). Clear sunny morning. No recent rain events. Water is clear, non-turbid, no odour.	This location is upstream of works and is therefore representative of up gradient conditions.	
13/12/2024, 10:56 am	EPL72	Marica groundwater upstream	15.83	34.7	3.44	118	77	5.68	211	164	SW: 15.25 m, sunny day, turbid water, no odour	This location is upstream of works and is therefore representative of up gradient conditions.	
13/12/2024, 11:48 am	EPL73	Marica groundwater downstream	9.22	107.5	10.77	324	211	6.04	242	242	SW: 13.23 m, sunny day, turbid water, no odour	This location is consistent with the up gradient conditions.	
25/12/2024, 8:20 am	EPL81	LHG groundwater upstream	18.71	21.2	1.97	842	539	6.67	8	79.2	SW: 20.56m (top of casing). Clear sunny morning. Water is slightly turbid, no odour.	This location is upstream of works and is therefore representative of up gradient conditions.	
25/12/2024, 9:19 am	EPL82	LHG groundwater downstream	17.85	10.3	0.97	367	562	6.82	-58	963	SW: 7.74 cm (top of casing). Clear sunny morning. Water is clear with sediment settling at the bottom, no odour. High turbidity due to bottom of the casing.	Elevated EC is consistent with up gradient conditions for December 2024.	
25/12/2024, 9:34 am	EPL82	MH groundwater upstream	17.96	71.6	6.75	3720	1700	6.5	-4	73.7	SW: 9.31m (top of casing). Clear sunny morning. Water is very clear, no odour. Very high EC reading, usually this spot has high EC	This location is upstream of works and is therefore representative of up gradient conditions.	
25/12/2024, 10:05 am	EPL83	MH groundwater downstream	18.73	10.0	1.01	501	372	6.29	69	201	SW: 8.37m (top of casing). Clear sunny day. Recent works nearby with an excavator creating turbid. Water is slightly turbid, no odour	Low pH and high EC align with the historical range and some fluctuations in pH levels due to the climatic conditions have been changed.	
25/12/2024, 8:49 am	EPL87	MH groundwater downstream	17.60	17.5	1.45	865	424	6.26	129	1000	SW: 4.02m (top of casing). Clear sunny morning. Water is very brown turbid. Some colour at basin adjacent. Dirs line odour. NTU has surpassed 1000.	Low pH levels align with historical data. However, some fluctuations in pH levels have been observed due to changing climatic conditions.	
25/12/2024, 9:47 am	EPL88	MH groundwater downstream	18.07	11.5	1.27	818	523	7.01	-141	2.4	SW: 13.22m (top of casing). Clear sunny day. Some ground disturbance nearby with an excavator building berms. Water is clear with a very strong sulphur smell.	Elevated EC aligns with the up gradient conditions for December 2024.	
25/12/2024, 10:00 am	EPL89	LHG groundwater downstream	15.98	20.5	2.02	574	245	6.61	154	254	SW: 13.23 m, sunny day, turbid water, no odour	Elevated EC aligns with the up gradient conditions for December 2024.	
9/12/2024, 10:38 am	EPL90	GF02 groundwater downstream	15.8	63.6	6.3	90	54	6.23	72	239	SW: 12.35 m, sunny day, turbid water, no odour	Low pH is consistent with up gradient ranges for this location in December 2024.	
9/12/2024, 10:28 am	EPL91	GF02 groundwater downstream	16.46	20.7	2.02	305	199	6.89	43	57.7	SW: 7.74 cm, sunny day, turbid water, no odour	All readings are within WQO limits.	
9/12/2024, 11:17 am	EPL92	GF02 groundwater downstream	15.62	80.5	8.01	136	86	6.8	111	244	SW: 12.25 m, sunny day, turbid water, no odour	All readings are within WQO limits.	
9/12/2024, 11:23 am	EPL93	GF02 groundwater downstream	15.43	15.0	1.50	251	16	6.73	71.2	57	133	SW: 15.38 m, sunny day, turbid water, no odour	All readings are within WQO limits.
9/12/2024, 11:27 am	EPL94	GF02 groundwater downstream	15.45	18.1	1.81	173	113	6.99	-72	78.9	SW: 12.21 m, sunny day, turbid water, no odour	All readings are within WQO limits.	
9/12/2024, 11:44 am	EPL95	GF02 groundwater downstream	16.05	15.1	1.49	800	389	6.04	105	11.9	SW: 6.50 m, sunny day, turbid water, no odour	Low pH and elevated EC are consistent with up gradient ranges for this location in December 2024.	
9/12/2024, 11:37 am	EPL96	GF02 groundwater downstream	15.74	32.5	5.19	1500	899	7.51	13	404	SW: 4.57 m, sunny day, turbid water, no odour	Elevated EC is consistent with the up gradient ranges for this location in December 2024.	
9/12/2024, 11:59 am	EPL97	GF02 groundwater downstream	16.03	19	1.87	470	311	6.61	109	10.8	SW: 4.0 m, sunny day, turbid water, no odour	Low pH and elevated EC are consistent with the up gradient range for this location in December 2024.	

Inventory Master 3.0 Main Window				
Monthly Sampling: 01-31 January 2021 - Spreadsheet				
Product	Unit	Unit of Packaging	Minimum Quantity (Minimum Qty)*	
Acetic Anhydride	kg	25	10	
Acetic Acid	kg	25	10	
Acetic Acid (Glacial)	kg	25	10	
Acetic Acid (50%)	kg	25	10	
Acetic Acid (70%)	kg	25	10	
Acetic Acid (85%)	kg	25	10	
Acetic Acid (95%)	kg	25	10	
Acetic Acid (100%)	kg	25	10	
Acetic Acid (110%)	kg	25	10	
Acetic Acid (120%)	kg	25	10	
Acetic Acid (130%)	kg	25	10	
Acetic Acid (140%)	kg	25	10	
Acetic Acid (150%)	kg	25	10	
Acetic Acid (160%)	kg	25	10	
Acetic Acid (170%)	kg	25	10	
Acetic Acid (180%)	kg	25	10	
Acetic Acid (190%)	kg	25	10	
Acetic Acid (200%)	kg	25	10	
Acetic Acid (210%)	kg	25	10	
Acetic Acid (220%)	kg	25	10	
Acetic Acid (230%)	kg	25	10	
Acetic Acid (240%)	kg	25	10	
Acetic Acid (250%)	kg	25	10	
Acetic Acid (260%)	kg	25	10	
Acetic Acid (270%)	kg	25	10	
Acetic Acid (280%)	kg	25	10	
Acetic Acid (290%)	kg	25	10	
Acetic Acid (300%)	kg	25	10	
Acetic Acid (310%)	kg	25	10	
Acetic Acid (320%)	kg	25	10	
Acetic Acid (330%)	kg	25	10	
Acetic Acid (340%)	kg	25	10	
Acetic Acid (350%)	kg	25	10	
Acetic Acid (360%)	kg	25	10	
Acetic Acid (370%)	kg	25	10	
Acetic Acid (380%)	kg	25	10	
Acetic Acid (390%)	kg	25	10	
Acetic Acid (400%)	kg	25	10	
Acetic Acid (410%)	kg	25	10	
Acetic Acid (420%)	kg	25	10	
Acetic Acid (430%)	kg	25	10	
Acetic Acid (440%)	kg	25	10	
Acetic Acid (450%)	kg	25	10	
Acetic Acid (460%)	kg	25	10	
Acetic Acid (470%)	kg	25	10	
Acetic Acid (480%)	kg	25	10	
Acetic Acid (490%)	kg	25	10	
Acetic Acid (500%)	kg	25	10	
Acetic Acid (510%)	kg	25	10	
Acetic Acid (520%)	kg	25	10	
Acetic Acid (530%)	kg	25	10	
Acetic Acid (540%)	kg	25	10	
Acetic Acid (550%)	kg	25	10	
Acetic Acid (560%)	kg	25	10	
Acetic Acid (570%)	kg	25	10	
Acetic Acid (580%)	kg	25	10	
Acetic Acid (590%)	kg	25	10	
Acetic Acid (600%)	kg	25	10	
Acetic Acid (610%)	kg	25	10	
Acetic Acid (620%)	kg	25	10	
Acetic Acid (630%)	kg	25	10	
Acetic Acid (640%)	kg	25	10	
Acetic Acid (650%)	kg	25	10	
Acetic Acid (660%)	kg	25	10	
Acetic Acid (670%)	kg	25	10	
Acetic Acid (680%)	kg	25	10	
Acetic Acid (690%)	kg	25	10	
Acetic Acid (700%)	kg	25	10	
Acetic Acid (710%)	kg	25	10	
Acetic Acid (720%)	kg	25	10	
Acetic Acid (730%)	kg	25	10	
Acetic Acid (740%)	kg	25	10	
Acetic Acid (750%)	kg	25	10	
Acetic Acid (760%)	kg	25	10	
Acetic Acid (770%)	kg	25	10	
Acetic Acid (780%)	kg	25	10	
Acetic Acid (790%)	kg	25	10	
Acetic Acid (800%)	kg	25	10	
Acetic Acid (810%)	kg	25	10	
Acetic Acid (820%)	kg	25	10	
Acetic Acid (830%)	kg	25	10	
Acetic Acid (840%)	kg	25	10	
Acetic Acid (850%)	kg	25	10	
Acetic Acid (860%)	kg	25	10	
Acetic Acid (870%)	kg	25	10	
Acetic Acid (880%)	kg	25	10	
Acetic Acid (890%)	kg	25	10	
Acetic Acid (900%)	kg	25	10	
Acetic Acid (910%)	kg	25	10	
Acetic Acid (920%)	kg	25	10	
Acetic Acid (930%)	kg	25	10	
Acetic Acid (940%)	kg	25	10	
Acetic Acid (950%)	kg	25	10	
Acetic Acid (960%)	kg	25	10	
Acetic Acid (970%)	kg	25	10	
Acetic Acid (980%)	kg	25	10	
Acetic Acid (990%)	kg	25	10	
Acetic Acid (1000%)	kg	25	10	

Snowy Hydro 2.0 Main Works  
Monthly EPL Sampling: 01-31 January 2025 - Talbingo and Tantangara  
Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
<b>Field</b>			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	200-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
<b>Laboratory analytes</b>			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO <sub>3</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
<b>Inorganics</b>			
Cyanide Total	µg/L	4	7
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	5
<b>Metals</b>			
Aluminum (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+V) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	34
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	1.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Fecal Coliforms	CFU/100mL	1	10/100*
Biochemical Oxygen Demand	mg/L	2	1/5*

- \* Water Quality Objective values for Tallings and Tangatangara Reservoir to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant limits imposed by EPL 21246.
- \*\* Algal blooms can present as faecal coliforms
- 90th percentile concentration limits / 100 percentile concentration limits
- Sample not required at this location.

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
15/1/25	15/1/25	19/1/25	19/1/25	19/1/25	10/1/25	10/1/25	4/1/25	19/1/25	19/1/25	4/1/25	19/1/25	19/1/25
7.62	7.87	7.76	7.1	7.52	7.63	7.53	7.29	6.95	7.1	8.16	8.17	6.97
97	79	30	25	26	38	27	22.4	26	25	40	43	85
184	177	212	241	48	200	201	199.1	244	218	170	169	175
25.85	25.2	18.28	19.19	18.94	18.47	14.94	24.8	19.01	19.01	24.24	23.75	23.04
63.5	63.7	109.1	92.4	91.9	74.6	90	100	90	91	71.8	69.4	81.3
0	1	8.6	8.9	7.1	30.6	9.6	4.13	6.3	7.4	3.1	3.4	6.3
-5	-5	-5	-5	-5	34	-5	-5	5	-5	-5	-5	17
43	38	9	9	9	9	13	9	9	-1	17	14	14
20	50	<10	<10	40	<10	10	10	<10	<10	<10	10	<10
<10	5	<2	4	<10	8	10	4	2	<10	<2	8	<2
200	200	300	300	300	400	400	200	300	400	300	200	200
200	200	300	300	400	400	400	200	300	400	300	200	200
2	<1	4	1	4	3	3	4	4	4	5	2	2
30	<10	40	90	60	80	60	50	60	50	<10	<10	<10
<10	<10	<6	<4	<4	<4	<6	<4	<4	<6	<6	<4	<6
<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
<5	<5	30	30	30	31	27	25	30	33	6	<5	<5
0.5	0.3	0.3	0.3	0.3	0.3	<0.2	<0.2	0.3	0.3	0.2	<0.2	0.2
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
36	16	279	279	280	285	161	77	278	310	6	8	5
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2.0	<0.5	1.6	1.7	1.6	2.0	4.5	5.7	1.7	1.8	<0.5	<0.5	<0.5
0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
590	2.700	100	-	-	-	-	-	-	80	-	-	-
<2	<2	3	-	-	-	-	-	-	<2	-	-	-

Monthly ETP Sampling: 01-31 January 2025 - Surface Water		Snowy Hydro 2.0 Main Works																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Analysis	Unit	Limit of Agreement	Water Quality Objective Value*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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DO	mg/L	±0.5	EP12	EP16	EP17	EP18	EP19	EP20	EP21	EP22	EP23	EP24	EP25	EP26	EP27	EP28	EP29	EP30	EP31	EP32	EP33	EP34	EP35	EP36	EP37	EP38	EP39	EP40	EP41	EP42	EP43	EP44	EP45	EP46	EP47	EP48	EP49	EP50	EP51	EP52	EP53	EP54	EP55	EP56	EP57	EP58	EP59	EP60	EP61	EP62	EP63	EP64	EP65	EP66	EP67	EP68	EP69	EP70	EP71	EP72	EP73	EP74	EP75	EP76	EP77	EP78	EP79	EP80	EP81	EP82	EP83	EP84	EP85	EP86	EP87	EP88	EP89	EP90	EP91	EP92	EP93	EP94	EP95	EP96	EP97	EP98	EP99	EP100	EP101	EP102	EP103	EP104	EP105	EP106	EP107	EP108	EP109	EP110	EP111	EP112	EP113	EP114	EP115	EP116	EP117	EP118	EP119	EP120	EP121	EP122	EP123	EP124	EP125	EP126	EP127	EP128	EP129	EP130	EP131	EP132	EP133	EP134	EP135	EP136	EP137	EP138	EP139	EP140	EP141	EP142	EP143	EP144	EP145	EP146	EP147	EP148	EP149	EP150	EP151	EP152	EP153	EP154	EP155	EP156	EP157	EP158	EP159	EP160	EP161	EP162	EP163	EP164	EP165	EP166	EP167	EP168	EP169	EP170	EP171	EP172	EP173	EP174	EP175	EP176	EP177	EP178	EP179	EP180	EP181	EP182	EP183	EP184	EP185	EP186	EP187	EP188	EP189	EP190	EP191	EP192	EP193	EP194	EP195	EP196	EP197	EP198	EP199	EP200	EP201	EP202	EP203	EP204	EP205	EP206	EP207	EP208	EP209	EP210	EP211	EP212	EP213	EP214	EP215	EP216	EP217	EP218	EP219	EP220	EP221	EP222	EP223	EP224	EP225	EP226	EP227	EP228	EP229	EP230	EP231	EP232	EP233	EP234	EP235	EP236	EP237	EP238	EP239	EP240	EP241	EP242	EP243	EP244	EP245	EP246	EP247	EP248	EP249	EP250	EP251	EP252	EP253	EP254	EP255	EP256	EP257	EP258	EP259	EP260	EP261	EP262	EP263	EP264	EP265	EP266	EP267	EP268	EP269	EP270	EP271	EP272	EP273	EP274	EP275	EP276	EP277	EP278	EP279	EP280	EP281	EP282	EP283	EP284	EP285	EP286	EP287	EP288	EP289	EP290	EP291	EP292	EP293	EP294	EP295	EP296	EP297	EP298	EP299	EP300	EP301	EP302	EP303	EP304	EP305	EP306	EP307	EP308	EP309	EP310	EP311	EP312	EP313	EP314	EP315	EP316	EP317	EP318	EP319	EP320	EP321	EP322	EP323	EP324	EP325	EP326	EP327	EP328	EP329	EP330	EP331	EP332	EP333	EP334	EP335	EP336	EP337	EP338	EP339	EP340	EP341	EP342	EP343	EP344	EP345	EP346	EP347	EP348	EP349	EP350	EP351	EP352	EP353	EP354	EP355	EP356	EP357	EP358	EP359	EP360	EP361	EP362	EP363	EP364	EP365	EP366	EP367	EP368	EP369	EP370	EP371	EP372	EP373	EP374	EP375	EP376	EP377	EP378	EP379	EP380	EP381	EP382	EP383	EP384	EP385	EP386	EP387	EP388	EP389	EP390	EP391	EP392	EP393	EP394	EP395	EP396	EP397	EP398	EP399	EP400	EP401	EP402	EP403	EP404	EP405	EP406	EP407	EP408																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

Monthly EPL Sampling: 01-31 January 2025 - Discharge Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Flow Rate			
Inflow <sup>a</sup>	ML/day	-	-
Outflow <sup>a</sup>	ML/day	-	4.32 (EPL 43 / 50)
Field			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
Laboratory analytes			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	200/2000 <sup>a</sup>
Nitrite + Nitrate as N (NO <sub>x</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- <sup>a</sup>
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 <sup>a</sup>
Inorganics			
Cyanide Total	µg/L	4	No Water Quality Objective Value
Hydrocarbons			
Oil and Grease	mg/L	1	2/5 <sup>a</sup>
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>a</sup>
Biological Oxygen Demand	mg/L	2	5

Note: Treated water was not being discharged at Talbingo Reservoir at the time of EPL sampling.

There is no 100th percentile limit for Nitrogen (Total).

\* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

<sup>a</sup> 90 Percentile concentration limit/100 Percentile limit

<sup>a</sup> Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site

EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
22/01/2025							22/01/2024
-	0.0000	0.3858	0.0478	0.2103	0.0889	0.7156	-
-	-	-	-	-	-	-	-
6.92	-	-	-	-	-	-	7.44
161	-	-	-	-	-	-	60.7
170	-	-	-	-	-	-	176.5
25.46	-	-	-	-	-	-	20.4
63.1	-	-	-	-	-	-	87.2
20	-	-	-	-	-	-	22.49
<5	-	-	-	-	-	-	<5
<1	-	-	-	-	-	-	<1
3,030	-	-	-	-	-	-	200
310	-	-	-	-	-	-	220
5,200	-	-	-	-	-	-	600
5,500	-	-	-	-	-	-	800
<1	-	-	-	-	-	-	<1
10	-	-	-	-	-	-	20
<4	-	-	-	-	-	-	<4
<1.0	-	-	-	-	-	-	<1.0
6	-	-	-	-	-	-	<5
<0.2	-	-	-	-	-	-	<0.2
<0.2	-	-	-	-	-	-	<0.2
<0.5	-	-	-	-	-	-	<0.5
<2	-	-	-	-	-	-	<2
<0.1	-	-	-	-	-	-	<0.1
<0.5	-	-	-	-	-	-	1.1
<0.5	-	-	-	-	-	-	<0.5
<0.01	-	-	-	-	-	-	<0.01
<1	-	-	-	-	-	-	1
<1	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	<2



Table 1 - Surface Water Quality Data  
River and Minor Watercourses

		Water Quality Parameters from step 21									
		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
		-	90 - 110	-	30 - 350	-	6.5 - 8.0	-	2 - 25		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments
1/2/2025, 7:41 am	EPL5	Varangobilly River, upstream of the exploratory tunnel and construction pad	19.83	79.9	7.28	163	106	7.45	267	3.9	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
11/2/2025, 3:51 pm	EPL6	Wallaces Creek, upstream of Varangobilly River and Wallaces Creek confluence	22.46	67.7	5.86	116	76	8.46	38	68.4	Overcast day. High rainfall over the past few days.
3/2/2025, 9:15 am	EPL8	Varangobilly River, downstream of Lick Hole Gully	21.2	67.8	6.01	169	110	8.38	206	0.3	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
2/2/2025, 9:41 am	EPL9	Varangobilly River, downstream of the accommodation camp and upstream of Tallings Reservoir	21.23	79.3	7.03	165	107	8.22	212	4.2	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
3/2/2025, 7:59 am	EPL12	Varangobilly River, immediately downstream of portal pad	19.61	79.3	6.81	163	106	7.07	288	3.1	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
2/2/2025, 8:44 am	EPL14	Varangobilly River, downstream of road construction areas	20.25	75.3	6.81	163	106	7.94	232	2.4	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
3/2/2025, 8:56 am	EPL15	Varangobilly River, downstream of road construction areas	20.92	66.5	5.93	162	106	8.27	213	6	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
3/2/2025, 10:05 am	EPL16	Varangobilly River, downstream of road construction areas	22.62	77.4	6.68	165	107	8.53	199	0.4	Clear sunny day. Lower water level and low rainfall in the last 2 weeks.
18/2/2025, 8:06 am	EPL24	Varangobilly River unnamed tributary, downslope of GFO1	14.66	75.5	7.66	607	389	7.17	178	33.6	Sunny day, low flow, clear water
7/2/2025, 12:15 pm	EPL26	Eucombene River downstream of Marica Road	22.71	77.4	6.68	38	26	8.1	161	12	Clear sunny day. Low water level, very low flow. Minor sign in creek bed.
7/2/2025, 12:03 pm	EPL27	Eucombene River upstream of Marica Road	20.38	75.2	6.79	40	26	8.31	148	5.3	Clear sunny day. Low water level, very low flow.
1/2/2025, 10:06 am	EPL30	Willy Plain Creek, downstream of accommodation camp and laydown areas	16.93	84.3	8.15	33	22	7.89	212	0	Clear, low flow, sunny day, no algal growth
1/2/2025, 10:21 am	EPL31	Willy Plain Creek, upstream of accommodation camp and laydown areas	17.42	86.4	8.28	28	18	7.66	219	0	Clear, no odours, low flow, sunny day, no algal growth
1/2/2025, 9:40 am	EPL33	Murrumbidgee River, downstream of Tantangara reservoir outlet	20.73	86.7	7.76	26	17	7.36	241	10.6	Slightly turbid, sunny, no odours
1/2/2025, 9:06 am	EPL34	Hungar Creek, upstream of Tantangara Road	16.62	88.1	9.06	40	26	7.69	222	0	Clear, no odours, low flow, minor algal growth, sunny
3/2/2025, 9:13 am	EPL35	Hungar Creek, downstream of Tantangara Road	16.42	94	9.19	39	26	7.57	225	0	Clear, minor algal growth, no odours, low flow, sunny
4/2/2025, 12:39 pm	EPL36	Cameron Creek, upstream of works in Rock Forest	22.57	68.6	5.93	51	33	7.73	115	14	Clear sunny day. New road being built nearby. Very low water level and low flow.
4/2/2025, 11:59 am	EPL37	Cameron Creek, downstream of works in Rock Forest	24.93	71.9	5.95	58	38	7.93	161	23.8	Clear sunny day. Very low water level. Water not flowing.
3/2/2025, 9:41 am	EPL32	GFO1 leachate basin	24.91	78.9	6.51	1,380.00	880	9.18	178	16	Basin is lower than usual. Green like colour, a fair bit of algal growth throughout basin. Non turbid. No odour. Clear, sunny day. No recent rain events.
Dry	EPL34	GFO1 surface water upstream east	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
Dry	EPL34	GFO1 surface water upstream west	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
17/2/2025, 1:23 pm	EPL35	GFO1 surface water downstream	19.6	68.5	6.25	1,320.00	782	7.01	142	12.3	Sunny day, high flow, clear water, no odour
-	EPL67	Hungar Creek surface water downstream east from Tantangara emplacement area	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
-	EPL71	Surface water downstream of Marica emplacement	-	-	-	-	-	-	-	-	This location has been removed and waiting for re locate it
15/2/2025, 10:17 am	EPL84	W Basin	20.64	74.4	6.67	441	287	8.61	164	1000	Highly turbid, recent heavy rain, no odours detected.
15/2/2025, 10:33 am	EPL85	WFOF Basin	18.7	52.5	4.8	461	300	9.24	143	1000	Highly turbid, no odours detected, recent heavy rain
16/2/2025, 11:14 am	EPL86	WFOF Basin	21.13	74.8	6.63	899	576	8.41	-28	107	Turbid, no odours detected, water recently transferred to LMS basin from WFOF
-	EPL88	Rock blanket diversion monitoring under GFO1 liner	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-
15/2/2025, 10:40 am	EPL89	Marica Leachate Basin- Turkey's Nest	16.14	66.6	6.34	265	172	8.96	47	41.9	Sunny day, turbid water, no odour
15/2/2025, 11:01 am	EPL100	Marica Lower Leachate Basin USS Shaft	16.96	67.5	6.52	587	376	8.44	89	81.5	Sunny day, turbid water, no odour

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15/2/2025, 10:52 am	EPL101	Marica Leachate Basin Spoil Pad	16.06	66.9	6.59	362	235	8.86	65	206	Sunny day, turbid water, no odour	Low DO with elevated EC and turbidity can be attributed to the runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters allow.
8/2/2025, 9:17 am	EPL106	Ravine Bay Leachate basin 1	25.78	74.3	6.03	1,270.00	816	8.67	95	45.6	Dark green colour, birds present, film present, no odour	Elevated turbidity with high EC and low DO are expected within the leachate storage infrastructure and the rainfall events during this period.
18/2/2025, 11:43 am	EPL110	Upstream monitoring of Ravine Bay emplacement area	13.87	95.8	9.9	67	44	7.54	140	44	Clear flow, no odour, heavy rainfall within 5 days	All reading are within WQOD limits.
-	EPL118	Ravine Bay Leachate basin 2	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	-
-	EPL120	Ravine Bay Leachate basin 4	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	-
19/2/2025, 8:27 am	EPL122	GFO1 Drainage Line (Formerly EPL 556)	14.06	64.1	6.58	778	498	7.79	173	208	Sunny day, low flow, clear water	Low DO and high EC with turbidity can be attributed to low flow, stagnant water. Location will continue to be monitored closely.

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Table 2 - Reservoir Water Quality Data

Tallagbie and Tantangara Reservoirs

Table 2 - Reservoir Water Quality Data												
Table 2 - Reservoir Water Quality Data Tallagbie and Tantangara Reservoirs			Water Quality Objectives (see note 2)									
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			85 - 110	-	-	20 - 30	-	6.5 - 8.0	-	1 - 20		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Content
26/2/2025, 8:16 am	EPL10	Tallagbie Reservoir, downstream of road works and upstream of water intake point	23.52	75.4	6.41	78	51	8.12	205	0.5	Horiba 5 not yet 1 No wind, clear day	Elevated water temperatures were considered to influence all reported results for this location. Warmer temperatures within the shallower location are considered to influence the lower DO and elevated EC. Low NTU results may have resulted from the lack of water movement (including the absence of wind influence) and the green discoloration observed.
26/2/2025, 8:05 am	EPL11	Tallagbie Reservoir, downstream of outlet	23.15	69.2	5.92	56	36	7.93	209	0	Horiba 5 not yet 1 No wind, sunny day	Elevated water temperatures, reduced water movement and the green discoloration within the water body are consistent with organic matter presence during the time of sampling and are considered to effect the conditions recorded at the time of sampling.
9/2/2025, 8:43 am	EPL28	Tantangara Reservoir, upstream of works in the mouth of the Murrumbidgee River	21.2	56.9	5.05	28	18	8.07	225	13	Early morning fog. 5mm overnight rain. Turning to sunny.	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and notably surfaces temperatures increased.
9/2/2025, 9:12 am	EPL29	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River	22.5	58.3	5.05	26	17	8.16	227	9.3	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and notably surfaces temperatures increased.
9/2/2025, 9:01 am	EPL32	Tantangara Reservoir, Tantangara Intake. Downstream of construction works	22.4	65.2	5.66	26	17	8.1	230	9	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and increased water temperatures.
1/2/2025, 1:14 pm	EPL38	Tantangara Reservoir, variable location dependent on tide and reservoir levels. Between the employment area and the ancillary facilities for employment activities	26.22	78.4	6.34	28	18	8.95	101	10.3	Visually clear, no odours, no algal growth, sunny	Low DO and elevated pH is thought to result from the very low water level and the corresponding inflow fluctuations.
1/2/2025, 11:49 am	EPL39	Confluence of Nungah Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tantangara construction works	22.65	91.5	7.9	30	19	6.66	233	18.7	Slightly turbid, low flow, sunny day.	All reading are within WQOD limits.
9/2/2025, 9:19 am	EPL40	Confluence of the upper Murrumbidgee River and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	19.9	88.4	8.06	30.9	22	7.56	168	5.16	Clear, flowing shallow water. No odour or odour. Sunny morning with minimal wind. Post rain event last night. Small collections of white bubbles seen on the surface. Water level too low for best access.	Marginally higher EC and lower DO are understood to have been potentially influenced by the shallow sample collection point and the proximity to the bank.
9/2/2025, 9:29 am	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	22.61	62.9	5.43	27	17	8.21	220	8	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and elevated temperatures.
9/2/2025, 9:18 am	EPL 51	Tantangara Reservoir, downstream of Tantangara STP/PWTP diffuser outlet	22.65	57.5	4.97	27	17	8.18	86	9.1	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and elevated temperatures.
26/2/2025, 7:50 am	EPL107	Upstream monitoring of Ravine Bay emplacement area within Tarrangabilly River	22.16	69	6.02	34	22	7.64	221	0	Horiba 5 not yet 1 Slight breeze sunny day	Elevated EC and low DO are consistent with background conditions for this water body in summer. Turbidity at these sites is very low. Likely between 0.1 and 1 NTU.
26/2/2025, 7:38 am	EPL108	Monitoring of Ravine Bay emplacement area (center of PSE) within Tarrangabilly River	21.74	82.8	7.28	32	21	7.69	204	0	Slight breeze, clear day.	Elevated EC and low DO are consistent with background conditions for this water body in summer. Turbidity at these sites is very low. Likely between 0.1 and 1 NTU.
26/2/2025, 7:30 am	EPL109	Upstream monitoring of Ravine Bay emplacement area within Tarrangabilly River	21.52	80	7.06	31	20	7.89	151	23.5	Not much wind, sunny day. Weather has been good the past couple of days.	Marginally elevated EC and low DO align with the background conditions for Tarrangabilly river in February 2025. High turbidity can be attributed to the decreased in the water level.
Table 3 - Treated Water Quality Data												
Table 3 - Treated Water Quality Data Lobs Hole STP/PWTP Final Effluent Quality Monitoring Point, Downstream of final treatment, prior to discharge to Tallagbie Reservoir.			Water Quality Objectives (see note 3)									
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			85 - 110	-	-	20 - 30	-	6.5 - 8.0	-	1 - 20		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Content
2/2/2025, 9:50 am	EPL41	Lobs Hole STP/PWTP Final Effluent Quality Monitoring Point, Downstream of final treatment, prior to discharge to Tallagbie Reservoir.	26.69	66.3	5.28	2,210.00	1,410.00	8.32	203	9.9	Visually clear - likely turbidity probe error, no odours	This location has been monitored twice a week, however, non discharge occurred in this period and has followed the re-use criteria when applicable.

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Table 2 - Reservoir Water Quality Data

Tallagbie and Tantangara Reservoirs

Table 3.2 - Rawwater Water Quality Data			Water Quality Objectives (see note 2)									
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			85 - 110	-	-	20 - 30	-	6.5 - 8.0	-	1 - 20		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Content
26/2/2025, 8:16 am	EPL10	Tallagbie Reservoir, downstream of road works and upstream of water intake point	23.52	75.4	6.41	78	51	8.12	205	0.5	Horiba 5 not yet 1 No wind, clear day	Elevated water temperatures were considered to influence all reported results for this location. Warmer temperatures within the shallower location are considered to influence the lower DO and elevated EC. Low NTU results may have resulted from the lack of water movement (including the absence of wind influence) and the green discoloration observed.
26/2/2025, 8:05 am	EPL11	Tallagbie Reservoir, downstream of outlet	23.15	69.2	5.92	56	36	7.93	209	0	Horiba 5 not yet 1 No wind, sunny day	Elevated water temperatures, reduced water movement and the green discoloration within the water body are consistent with organic matter presence during the time of sampling and are considered to effect the conditions recorded at the time of sampling.
9/2/2025, 8:43 am	EPL28	Tantangara Reservoir, upstream of works in the mouth of the Murrumbidgee River	21.2	56.9	5.05	28	18	8.07	225	13	Early morning fog. 5mm overnight rain. Turning to sunny.	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and notably surface temperatures increased.
9/2/2025, 9:12 am	EPL29	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River	22.5	58.3	5.05	26	17	8.16	227	9.3	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and notably surface temperatures increased.
9/2/2025, 9:01 am	EPL32	Tantangara Reservoir, Tantangara Intake, Downstream of construction works	22.4	65.2	5.66	26	17	8.1	230	9	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and increased water temperatures.
1/2/2025, 1:14 pm	EPL38	Tantangara Reservoir, variable location dependent on tide and reservoir levels. Between the employment area and the ancillary facilities for employment activities	26.22	78.4	6.34	28	18	8.95	101	10.3	Visually clear, no odours, no algal growth, sunny	Low DO and elevated pH is thought to result from the very low water level and the corresponding inflow fluctuations.
1/2/2025, 11:49 am	EPL39	Confluence of Nungah Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	22.65	91.5	7.9	30	19	6.66	233	18.7	Slightly turbid, low flow, sunny day.	All readings are within WQOD limits.
9/2/2025, 9:19 am	EPL40	Confluence of the upper Murrumbidgee River and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	19.9	88.4	8.06	30.9	22	7.56	168	5.16	Clear, flowing shallow water. No odour or odour. Sunny morning with minimal wind. Post rain event last night. Small collections of white bubbles seen on the surface. Water level too low for best access.	Marginally higher EC and lower DO are understood to have been potentially influenced by the shallow sample collection point and the proximity to the bank.
9/2/2025, 9:29 am	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	22.81	62.9	5.43	27	17	8.21	220	8	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and elevated temperatures.
9/2/2025, 9:18 am	EPL 51	Tantangara Reservoir, downstream of Tantangara STP/PWTP diffuser outlet	22.65	57.5	4.97	27	17	8.18	-86	9.1	Early morning fog turning to sunny. No odour or sign of discoloration. 5mm rain overnight	Low DO and elevated pH can be attributed to low reservoir levels in preparation for intake works and elevated temperatures.
26/2/2025, 7:50 am	EPL107	Upstream monitoring of Ravine Bay emplacement area within Tarrangabilly River	22.16	69	6.02	34	22	7.64	221	0	Horiba 5 not yet 1 Slight breeze sunny day	Elevated EC and low DO are consistent with background conditions for this water body in summer. Turbidity at these sites is very low. Likely between 0.1 and 1 NTU.
26/2/2025, 7:38 am	EPL108	Monitoring of Ravine Bay emplacement area (center of PSE) within Tarrangabilly River	21.74	82.8	7.28	32	21	7.69	204	0	Slight breeze, clear day.	Elevated EC and low DO are consistent with background conditions for this water body in summer. Turbidity at these sites is very low. Likely between 0.1 and 1 NTU.
26/2/2025, 7:30 am	EPL109	Upstream monitoring of Ravine Bay emplacement area within Tarrangabilly River	21.52	80	7.06	31	20	7.89	151	23.5	Not much wind, sunny day. Weather has been good the past couple of days.	Marginally elevated EC and low DO align with the background conditions for Tarrangabilly river in February 2025. High turbidity can be attributed to the decreased in the water level.
Table 3.3 - Treated Water Quality Data			Water Quality Objectives (see note 2)									
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			-	-	-	700	-	6.5 - 8.0	-	20		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Content
2/2/2025, 9:50 am	EPL41	Lobs Hole STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tallagbie Reservoir.	26.69	66.3	5.28	2,210.00	1,410.00	8.32	203	9.9	Visually clear - likely turbidity probe error, no odours	This location has been monitored twice a week, however, non discharge occurred in this period and has followed the re-use criteria when applicable.
Table 3.4 - Treated Water Quality Data			Water Quality Objectives (see note 2)									
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			-	-	-	700	-	6.5 - 8.0	-	20		
Date and Time	EPL Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Content
26/2/2025, 10:31 am	EPL50	Tantangara STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tantangara Reservoir.	19.6	85.7	7.89	30.8	8	5.14	224.5	0.8	Sunny. Sampled inside RO container. Water very clear, no sediment present, no odour or oil present. RO plant has chemical cleaning maintenance 5 days prior to sampling.	This location has been monitored twice a week, however, non discharge occurred in this period and has followed the re-use criteria when applicable.



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Table 5. Groundwater Quality Data  
GWS1 Surface Water and Groundwater

Table 5 - Groundwater Quality Data GWS1 Surface Water and Groundwater			Water Quality Objectives (see note 1)										Field Comments	Conduct
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)				
Date and Time	EP1 Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Conduct		
1/2/2025, 3:29 pm	EP1.1	Wellface Creek Bridge	20.74	17.9	1.61	104	322	6.77	-53	21.9	Clear sunny day. SWI 3.33m	Elevated EC is within the historical range for this location.		
16/2/2025, 9:00 am	EP1.2	Wellface Creek Bridge	14.62	102.3	10.37	294	752	7.85	-209	294	SWI 3.8 m, sunny day, turbid water, no odour	All readings are within WQO limits.		
11/2/2025, 3:31 pm	EP1.4	Partial Access	18.79	16.6	1.54	1,100.00	847	8.59	-95	1,000.00	Bore cap under water. Contaminated with surface water. SWI at surface.	Elevated EC and pH align with the historical range for this location.		
11/2/2025, 3:31 pm	EP1.26	Partial Access	19.37	29	2.87	106	324	6.58	-37	423	Overcast day. Heavy rainfall last few days.	Elevated EC within the historical range for this location.		
10/2/2025, 2:17 pm	EP1.36	GWS1 groundwater upstream east	18.84	14.8	1.38	237	154	7.28	135	19.6	Clear sunny afternoon. High rainfall overnight. SWI 10.56m	All readings are within WQO limits.		
10/2/2025, 2:41 pm	EP1.57	GWS1 groundwater upstream west	20.89	15.5	1.38	245	159	7.98	119	42.1	Clear sunny afternoon. High rainfall overnight. SWI 15.45m	All readings are within WQO limits.		
10/2/2025, 3:42 pm	EP1.58	GWS1 groundwater downstream	20.71	22.1	1.98	1340	730	6.17	136	38.3	SWI 7.45m. Clear, sunny day. No recent rain events. Water is clear, no odour, no sheen.	Elevated EC is generally consistent with historical range for this location. Low pH will be monitored closely, however borehole pump extraction method is in the process of being upgraded.		
10/2/2025, 10:40 am	EP1.68	Tantangara groundwater downstream West	15.92	66.8	6.61	30	19	5.85	198	190	Clear sunny day.	Low pH is generally consistent with the historical data for this location. These fall in line with current seasonal changes.		
10/2/2025, 10:17 am	EP1.69	Tantangara groundwater downstream East	17.06	60.8	5.87	31	20	6.34	189	40.8	Clear sunny day. SWI 2.37m. New earth works upstream.	Low pH is generally consistent with the historical data for this location. These fall in line with current seasonal changes.		
10/2/2025, 8:46 am	EP1.70	Tantangara groundwater upstream	16.31	52.9	5.19	98	64	6.79	183	1000	Clear sunny day. SWI 7.64m. Very turbid, greater than 1000NTU.	All readings are within WQO limits.		
15/2/2025, 9:36 am	EP1.72	Marica groundwater upstream	11.54	14.6	1.95	71	46	5.76	223	65.8	SWI 36.04 m, sunny day, turbid water, no odour	This location is significant of works and therefore representative of background conditions.		
11/2/2025, 10:14 am	EP1.73	Marica groundwater downstream	11.56	91.2	9.93	77	50	5.72	230	36.3	SWI 11.86 m, sunny day, turbid water, no odour	The ranges are consistent with the degradation conditions for February 2025.		
10/2/2025, 2:18 pm	EP1.80	JHG groundwater upstream	23.95	14.7	1.25	809	512	7.11	-48	10.4	SWI 20.55m. Very hot afternoon. No recent rain events. Water is slightly turbid with silt settling at the bottom. No odour.	This location is significant of works and therefore representative of background conditions.		
10/2/2025, 3:14 pm	EP1.81	JHG groundwater downstream	23.56	28.3	2.41	812	546	7.15	-42	1000	SWI 4.5m. Hot afternoon. No recent rain events. Water is clear with dark grey silt sediment settling at the bottom of the bore. No odour. NTU reached 1000NTU.	Elevated EC aligns with results of degradation of works.		
10/2/2025, 2:38 pm	EP1.82	MF groundwater upstream	20.28	20.4	1.83	2710	1730	6.96	-51	59.4	SWI 6.94m. Very hot afternoon. No recent rain events. Water is clear with no odour.	This location is significant of works and therefore representative of background conditions.		
10/2/2025, 4:04 pm	EP1.83	MF groundwater downstream	21.26	33.9	3	106	324	6.22	46	81.7	SWI 3.97m. Hot afternoon. No recent rain events. Water is clear, no odour.	Elevated EC aligns with results of degradation of works. Low pH will be closely monitored at this location, however borehole pump extraction method is currently being upgraded.		
10/2/2025, 2:48 pm	EP1.87	MF groundwater downstream	20.62	17.5	1.57	629	403	6.28	106	1000	SWI 4.23m. Very hot sunny afternoon. Water is brown turbid. No odour. Very similar colour to adjacent bore 6.5. NTU has exceeded 1000.	Elevated EC aligns with results of degradation of works. Low pH will be closely monitored at this location, however borehole pump extraction method is currently being upgraded.		
10/2/2025, 3:51 pm	EP1.88	MF groundwater downstream	22.67	15.9	1.37	809	518	7.3	-132	1.2	SWI 3.47m. Hot afternoon. No recent rain events. Water is very clear with a sulphur like odour.	Elevated EC aligns with results of degradation of works.		
10/2/2025, 1:56 pm	EP1.89	JHG groundwater downstream	24.4	24.1	2.01	365	249	6.96	133	226	SWI 3.27m. Hot sunny day. No recent rain event. Water is slightly turbid, no odour.	Elevated EC aligns with results of degradation of works.		
10/2/2025, 2:08 pm	EP1.90	GWS1 groundwater downstream	17.88	46.9	4.45	95	35	6.04	154	238	Clear sunny afternoon. High rainfall overnight. SWI 14.08m	Low pH is generally consistent with the historical data for this location. Borehole extraction method is currently being upgraded at this location.		
10/2/2025, 1:51 pm	EP1.91	GWS1 groundwater downstream	19.25	24.3	2.24	243	158	7.13	13	21.6	Clear sunny afternoon. High rainfall overnight. SWI 6.58	All readings are within WQO limits.		
10/2/2025, 2:58 pm	EP1.92	GWS1 groundwater downstream	19.75	85.5	7.81	115	75	6.87	25	739	Clear sunny afternoon. High rainfall overnight. SWI 11.50m.	All readings are within WQO limits.		
10/2/2025, 3:08 pm	EP1.93	GWS1 groundwater downstream	18.44	19.3	1.81	236	153	7.15	-56	987	Clear sunny afternoon. High rainfall overnight. SWI 15.20m.	All readings are within WQO limits.		
10/2/2025, 3:11 pm	EP1.94	GWS1 groundwater downstream	18.42	19.7	1.85	167	109	6.93	3	83.1	Clear sunny afternoon. High rainfall overnight. SWI 15.42m.	All readings are within WQO limits.		
10/2/2025, 3:31 pm	EP1.95	GWS1 groundwater downstream	20.52	21.7	1.95	840	538	6.3	131	65.8	Clear sunny afternoon. High rainfall overnight. SWI 15.89m	Elevated EC and low pH have been consistent at this location for this current seasonal range. This location is currently undergoing upgrades in its extraction method.		
10/2/2025, 9:28 am	EP1.96	GWS1 groundwater downstream	17.42	22	2.11	943	412	7.15	232	236	SWI 5.50m. This sample point is contaminated due to bore placement and clogging. Please see photos. Sample only collected to meet EPA requirement. Water is slightly turbid, no odour.	Elevated EC is consistent with the historical ranges for this location for February 2025.		
10/2/2025, 3:57 pm	EP1.97	GWS1 groundwater downstream	20.32	18.7	1.68	437	284	6.78	37	11.3	Clear sunny afternoon. High rainfall overnight. SWI 5.60m	Elevated EC has been consistent at this location for this current seasonal range.		
11/2/2025, 10:13 am	EP1.102	Groundwater monitoring associated with the Marica emplacement area on Marica Trail	12.53	85.6	85.6	407	265	6.68	67	40.9	SWI 6.68 m, sunny day, turbid water, no odour	Elevated EC has been consistent at this location for the current seasonal range.		
10/2/2025, 9:07 am	EP1.103	Upstream groundwater monitoring west of the Tantangara emplacement area	15.65	49.8	4.95	39	26	6.44	180	35	Clear sunny day. SWI 11.13m.	This location is significant of works and therefore representative of background conditions.		
10/2/2025, 11:05 am	EP1.104	Downstream groundwater monitoring east of the Tantangara emplacement area	18.31	40.1	3.77	59	38	6.33	186	17.3	Clear sunny day. SWI 4.65m.	Low pH aligns with results of degradation of PSE.		
10/2/2025, 9:39 am	EP1.105	Downstream groundwater monitoring east of the Tantangara emplacement area	16.76	53.7	5.21	152	99	6.25	188	3.9	Clear sunny day. Could not because if pump set up.	Low pH aligns with results of degradation of PSE.		
18/2/2025, 11:54 am	EP1.113	Upstream east monitoring of Ravine Bay emplacement area	16.88	28.6	2.87	129	84	5.93	219	639	SWI 2.38m, slightly turbid, no odour, recent rainfall >45mm	This location is significant of works and therefore representative of background conditions.		
18/2/2025, 1:05 pm	EP1.114	Upstream west monitoring of Ravine Bay emplacement area	20.92	13.6	1.22	403	262	7.34	229	30.3	SWI 31.64m, clear, no odour, recent rainfall >45mm	This location is significant of works and therefore representative of background conditions.		

EP1 21266 In Situ Water Quality Measurements												
EP1 Monthly Monitoring February 2025												
18/2/2025, 12:20 pm	EP1.115	Downstream east monitoring of Ravine Bay emplacement area	16.36	103	10.08	356	231	7.36	123	355	SWI 10.74m, slightly turbid, no odour	High EC aligns with results of degradation of PSE.
18/2/2025, 1:37 pm	EP1.116	Downstream west monitoring of Ravine Bay emplacement area	18.94	82.6	7.67	215	140	6.76	206	1,000	SWI 9.61 Highly turbid	All readings are within WQO limits.
18/2/2025, 2:11 pm	EP1.117	Downstream monitoring of Ravine Bay emplacement area	19.81	41.2	3.75	147	96	6.14	-8	1000	SWI 16.27m:ec	Low pH can be attributed to the surrounding conditions in February 2025.

Note 1: Water Quality Objective values for the Tantangara River and Minor Watercourses refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ARMCANZ (2000).

Note 2: Water Quality Objective values for Tallangero Reservoir are the default trigger values for physical and chemical stressors in south-east Australia (freshwater lakes and reservoirs) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ARMCANZ (2000).

Note 3: Water Quality Objective values for Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works ES.

Note 4: Water Quality Objective values for groundwater reference the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for pH and electrical conductivity.

Shenly Hydro 3.0 Main Works

Monthly EP1 Sampling: 01-28 February 2025 - Groundwater

Parameter	Unit	Point of Interest	Water Quality Objective Value
Temperature	°C	EP1	10-20
Dissolved Oxygen	%	EP1	10-15
Electrical Conductivity	µS/cm	EP1	100-1000
pH		EP1	6.5-8.5
Turbidity	NTU	EP1	10-100
Redox Potential	mV	EP1	-100 to 100
Ammonia Nitrogen	mg/L	EP1	0-1
Nitrate Nitrogen	mg/L	EP1	0-10
Chloride	mg/L	EP1	0-100
Sulfate	mg/L	EP1	0-100
Calcium	mg/L	EP1	0-100
Magnesium	mg/L	EP1	0-100
Sodium + Potassium	mg/L	EP1	0-100
Iron	mg/L	EP1	0-1
Copper	mg/L	EP1	0-0.1
Zinc	mg/L	EP1	0-0.1
Lead	mg/L	EP1	0-0.01
Mercury	mg/L	EP1	0-0.001
Fluoride	mg/L	EP1	0-1
Barium	mg/L	EP1	0-1
Strontium	mg/L	EP1	0-1
Vanadium	mg/L	EP1	0-0.1
Chromium	mg/L	EP1	0-0.1
Manganese	mg/L	EP1	0-0.1
Cadmium	mg/L	EP1	0-0.01
Cobalt	mg/L	EP1	0-0.1
Nickel	mg/L	EP1	0-0.1
Selenium	mg/L	EP1	0-0.1
Antimony	mg/L	EP1	0-0.01
As	mg/L	EP1	0-0.01
B	mg/L	EP1	0-0.1
Be	mg/L	EP1	0-0.01
Bi	mg/L	EP1	0-0.01
Br	mg/L	EP1	0-1
Cd	mg/L	EP1	0-0.01
Ce	mg/L	EP1	0-0.01
Cl	mg/L	EP1	0-100
Co	mg/L	EP1	0-0.1
Cr	mg/L	EP1	0-0.1
Cu	mg/L	EP1	0-0.1
F	mg/L	EP1	0-1
Ga	mg/L	EP1	0-0.01
Ge	mg/L	EP1	0-0.01
Hf	mg/L	EP1	0-0.01
Hg	mg/L	EP1	0-0.001
I	mg/L	EP1	0-0.1
In	mg/L	EP1	0-0.01
Ir	mg/L	EP1	0-0.01
K	mg/L	EP1	0-100
Li	mg/L	EP1	0-0.1
Mn	mg/L	EP1	0-0.1
Mo	mg/L	EP1	0-0.01
N	mg/L	EP1	0-10
Na	mg/L	EP1	0-100
Nb	mg/L	EP1	0-0.01
Ne	mg/L	EP1	0-0.01
Ni	mg/L	EP1	0-0.1
Os	mg/L	EP1	0-0.01
P	mg/L	EP1	0-0.1
Pb	mg/L	EP1	0-0.01
Pr	mg/L	EP1	0-0.01
Rb	mg/L	EP1	0-0.1
S	mg/L	EP1	0-100
Sb	mg/L	EP1	0-0.01
Sc	mg/L	EP1	0-0.01
Se	mg/L	EP1	0-0.01
Si	mg/L	EP1	0-100
Sn	mg/L	EP1	0-0.01
Sm	mg/L	EP1	0-0.01
Sr	mg/L	EP1	0-0.1
Ta	mg/L	EP1	0-0.01
Tb	mg/L	EP1	0-0.01
Tc	mg/L	EP1	0-0.01
Te	mg/L	EP1	0-0.01
Th	mg/L	EP1	0-0.01
Ti	mg/L	EP1	0-0.01
Tl	mg/L	EP1	0-0.01
Tm	mg/L	EP1	0-0.01
U	mg/L	EP1	0-0.01
V	mg/L	EP1	0-0.01
W	mg/L	EP1	0-0.01
Xe	mg/L	EP1	0-0.01
Y	mg/L	EP1	0-0.01
Zn	mg/L	EP1	0-0.1
Zr	mg/L	EP1	0-0.01

Snowy Hydro 2.0 Main Works  
Monthly EPL Sampling: 01-28 February 2025 - Talbingo and Tantangara  
Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
<b>Field</b>			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
<b>Laboratory analyses</b>			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO <sub>2</sub> )	µg/L	10	10
Upland Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
<b>Inorganics</b>			
Cyanide Total	µg/L	4	7
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	5
<b>Metals</b>			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (VI+IV) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	1.1
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>a</sup>
Biochemical Oxygen Demand	mg/L	2	1/5 <sup>a</sup>

- \* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant limits imposed by EPL 21266.
- \*\* Algal blooms can present as faecal coliforms
- 90th percentile concentration limits / 100 percentile concentration limits
- Sample not required at this location.

EPL10	EPL11	EPL12	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
26/2/25	26/2/25	9/2/25	9/2/25	9/2/25	1/2/25	1/2/25	9/2/25	9/2/25	9/2/25	26/2/25	26/2/25	26/2/25
8.12	7.93	8.07	8.16	8.1	8.95	6.66	7.56	8.21	8.18	7.64	7.69	7.89
78	56	28	26	36	28	30	30.9	27	34	32	31	
205	209	225	227	230	101	233	168	220	86	221	204	151
23.52	23.15	21.2	22.5	22.4	26.22	22.65	19.9	22.61	22.65	22.16	21.74	21.52
75.4	69.2	56.9	58.3	65.2	78.4	91.5	88.4	62.9	57.5	69	82.8	80
0.5	0	13	9.3	9	10.3	18.7	5.16	8	9.1	0	0	23.5
<5	<5	8	<5	<5	6	8	<5	<5	<5	<5	<5	<5
43	31	9	9	9	5	7	9	9	9	17	17	14
40	130	<10	20	<10	<10	<10	20	<10	40	60	20	40
30	<10	20	<10	<10	<10	20	<10	20	<10	<10	<10	20
300	400	300	400	400	300	200	300	400	200	200	200	200
300	400	300	400	400	300	200	300	400	200	200	200	200
<10	<10	10	10	10	<10	<10	50	<10	<10	<10	<10	<10
30	40	40	40	40	30	20	50	40	70	<10	10	<10
<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<10
<5	<5	26	32	30	24	37	25	30	31	<5	<5	<5
0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	<0.2
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
26	12	388	246	247	186	141	104	252	251	6	4	4
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<0.5	<0.5	1.7	3.4	3.3	2.7	8.8	4.4	3.0	3.2	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,900	68	6000	-	-	-	-	-	-	3300	-	-	-
9	3	5	-	-	-	-	-	-	6	-	-	-

Snowy Hydro 2.0 Main Works  
Monthly EPL Sampling: 01-28 February 2025 - Surface Water

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
pH	-	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
<b>Laboratory analyses</b>			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO <sub>2</sub> )	µg/L	10	10
Upland Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
<b>Inorganics</b>			
Cyanide Total	µg/L	4	7
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	5
<b>Metals</b>			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (VI+IV) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	1.1
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>a</sup>
Biochemical Oxygen Demand	mg/L	2	1/5 <sup>a</sup>

\* Water Quality Objective values for surface water refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant limits imposed by EPL 21266.



**Monthly EPL Sampling: 01-28 February 2025 - Treated Water**

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
<b>Flow Rate</b>			
Inflow <sup>#</sup>	ML/day	-	-
Outflow <sup>#</sup>	ML/day	-	4.32 (EPL 43 / 50)
<b>Field</b>			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
<b>Laboratory analytes</b>			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	200/2000 <sup>#</sup>
Nitrite + Nitrate as N (NO <sub>x</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- <sup>#</sup>
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 <sup>#</sup>
<b>Inorganics</b>			
Cyanide Total	µg/L	4	No Water Quality Objective Value
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	2/5 <sup>#</sup>
<b>Metals</b>			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>#</sup>
Biological Oxygen Demand	mg/L	2	5

EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
2/2/2025							26/2/2025
-	0.0000	0.1994	0.0523	0.2074	0.0887	0.6811	-
-	-	-	-	-	-	-	-
8.32	-	-	-	-	-	-	5.14
2210	-	-	-	-	-	-	10.8
203	-	-	-	-	-	-	224.5
26.69	-	-	-	-	-	-	19.6
66.3	-	-	-	-	-	-	85.7
9.9	-	-	-	-	-	-	0.8
<5	-	-	-	-	-	-	<5
106	-	-	-	-	-	-	<1
2,110	-	-	-	-	-	-	30
18,300	-	-	-	-	-	-	20
3,300	-	-	-	-	-	-	200
21,600	-	-	-	-	-	-	200
70	-	-	-	-	-	-	<10
80	-	-	-	-	-	-	40
11	-	-	-	-	-	-	<4
<1.0	-	-	-	-	-	-	<1.0
16	-	-	-	-	-	-	<5
3.0	-	-	-	-	-	-	<0.2
13.3	-	-	-	-	-	-	<0.2
<0.5	-	-	-	-	-	-	<0.5
<2	-	-	-	-	-	-	<2
<0.1	-	-	-	-	-	-	<0.1
2.7	-	-	-	-	-	-	<0.5
<0.5	-	-	-	-	-	-	<0.5
<0.01	-	-	-	-	-	-	<0.01
2	-	-	-	-	-	-	<1
<1	-	-	-	-	-	-	<1
<2	-	-	-	-	-	-	<2

Note: There is no 100th percentile limit for Nitrogen (Total).

\* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

<sup>#</sup> 90 Percentile concentration limit/100 Percentile limit

<sup>#</sup> Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site

EPL 21266 In Situ Water Quality Measurements  
EPL Monthly Monitoring March 2025  
Table 1 - Surface Water Quality Data  
River and Minor Watercourses

Date and Time		EPL Site ID		Location Description		Water Quality Objectives (see note 1)								Field Comments	Context
						Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
						90 - 110	90 - 110	90 - 110	30 - 350	30 - 350	6.5 - 8.5	-	2 - 25		
1/3/2025, 8:22 am	EPL5	Yarrangobilly River, upstream of the exploratory tunnel and construction pad		17.93	88.4	8.39	219	142	8.02	90	8	Clear sunny day, no recent rain, regular flow of water	This sample point is upstream of works and is therefore representative of background conditions.		
1/3/2025, 9:03 am	EPL6	Wallaces Creek, upstream of Yarrangobilly River and Wallaces Creek confluence		16.42	65.3	6.19	123	80	7.9	118	3.7	Sunny clear day, regular flow clear water	This sample point is upstream of works and is therefore representative of background conditions.		
1/3/2025, 11:48 am	EPL8	Yarrangobilly River, downstream of Lick Hole Gully		21.61	66.7	6.05	221	144	7.86	139	4.6	Clear sunny day, no wind, no recent rain. A slight plume of sediment is close to the edge of the river, there seems to be runoff seeping into river from the ground at stairs - shown in photo 1	Low DO aligns with results upstream of works and reduced flow.		
1/3/2025, 11:17 am	EPL9	Yarrangobilly River, downstream of the accommodation camp and upstream of Tabbings Reservoir		20.07	84	7.62	177	115	8.14	146	10.1	Sunny clear day no wind no recent rain Water flow regular	Low DO aligns with results upstream of works and reduced flow.		
1/3/2025, 8:43 am	EPL12	Yarrangobilly River, immediately downstream of portal pad		17.47	66.2	6.33	172	112	8.06	101	1.6	Clear sunny day, no recent rain, regular flow of water	Low DO aligns with results upstream of works and reduced flow.		
1/3/2025, 9:22 am	EPL14	Yarrangobilly River, downstream of road construction areas		17.39	107.4	10.39	166	108	7.99	121	3.3	Sunny day no wind regular flow of water	All readings are within WQO limits.		
1/3/2025, 9:47 am	EPL15	Yarrangobilly River, downstream of road construction areas		17.77	71.5	6.8	170	1.7	8.05	125	1.7	Sunny clear day, no wind, no recent rain, regular flow of water	Marginally elevated pH and low DO align with the upgradient conditions for March 2025.		
1/3/2025, 12:08 pm	EPL16	Yarrangobilly River, downstream of road construction areas		22.66	65.2	5.83	175	114	8.25	137	3.3	Clear sunny day no wind no recent rain, regular flow of river	Low DO and high pH aligns with results upstream of works and the reduction of water available.		
7/3/2025, 10:26 am	EPL24	Yarrangobilly River tributary (Watercourse 2), directly downstream of road		18.43	65.1	6.09	1,270.00	811	6.7	134	0.4	Sunny day, clear water, no smell, very low flow	This location has been an objective of constant monitoring and reporting. High EC potentially attributed to low flows at this location.		
16/3/2025, 11:10 am	EPL26	Eucumbene River downstream of Marica Road		11.98	74.2	8	87	24	7.86	190	5.3	Low steady flow, clear water, no odour. Very high traffic area for horses churned up banks as a result. Cool sunny day slight breeze. Lower level of algae present compared to upstream.	Low DO aligns with the baseline data and remains with the upstream conditions.		
18/3/2025, 10:52 am	EPL27	Eucumbene River upstream of Marica Road		11	71.2	7.85	36	23	8.23	164	7.65	Clear water, low flow, steady stream, no odour. Sign of animal activity around the banks. The algae is brown. Slight breeze, sunny, cool morning. Gas done here	This sample point is upstream of works and is therefore representative of background conditions.		
1/2/2025, 9:07 am	EPL30	Kelfys Plain Creek, downstream of accommodation camp and laydown areas		13.43	61.4	6.4	40	26	8.89	298	5.1	Sunny day, clear, slow flow, no smell	This location aligns with the upgradient conditions for March 2025.		
1/3/2025, 8:49 am	EPL31	Kelfys Plain Creek, upstream of accommodation camp and laydown areas		13.5	69.4	7.23	32	20	7.12	285	8.8	Sunny day, clear, slow flow, no odour	This sample point is upstream of works and is therefore representative of background conditions.		
1/3/2025, 8:24 am	EPL33	Murrumbidgee River, downstream of Tantangara reservoir outlet		17.83	68.3	6.49	31	20	7.23	239	13.2	Sunny day, clear water, slow flow, no odour	This location aligns with the upgradient conditions for March 2025.		
1/2/2025, 7:35 am	EPL34	Nungar Creek, upstream of Tantangara Road		12.18	66.3	7.12	48	31	8.19	136	73.9	Sunny day, clear, low flow, the level of water reduced notably, no odour	This sample point is upstream of works and is therefore representative of background conditions.		
1/3/2025, 7:48 am	EPL35	Nungar Creek, downstream of Tantangara Road		11.71	68.8	7.46	40.0	26	7.87	155	14.9	Sunny day, clear, very low flow, the water level has reduced notably, note something only in the water but may not be grass and no smell	Low DO aligns with the upstream conditions for March 2025.		
8/3/2025, 10:04 am	EPL36	Cameron Creek, upstream of works in Rock Forest		16.06	58.2	5.74	52	34	7.29	126	7.8	Sunny day, clear water, no odour, slow and low flow	This sample point is upstream of works and is therefore representative of background conditions.		
8/3/2025, 9:35 am	EPL37	Cameron Creek, downstream of works in Rock Forest		15.75	61.6	6.31	54	35	7.35	145	9.2	Sunny day, slow and low flow, no odour	Low DO remains the historical data and aligns with the upgradient conditions for March 2025.		
4/3/2025, 10:43 am	EPL52	GFO1 leachate basin		23.49	80.4	6.81	803.00	552	9.21	93	47.1	Smells like organic rotting stuffy. Green sludge, dry hot weather	The leachate storage infrastructure is expected to have spikes in in-situ reading results.		
-	EPL53	GFO1 surface water upstream east		-	-	-	-	-	-	-	-	This location is dry	-		
-	EPL54	GFO1 surface water upstream west		-	-	-	-	-	-	-	-	This location is dry	-		
-	EPL55	GFO1 surface water downstream		-	-	-	-	-	-	-	-	This location is dry	-		
-	EPL67	Nungar Creek surface water downstream west from Tantangara emplacement area		-	-	-	-	-	-	-	-	The reservoir level at Tantangara is low and is not representative sample.	-		
-	EPL71	Surface water downstream of Marica emplacement		-	-	-	-	-	-	-	-	Unable to access site due to land clearing activities.	-		
11/3/2025, 2:06 pm	EPL84	FB Basin		26.62	128.5	9.92	968.00	618	9.29	115	782	No rainfall in last 24 hrs	The leachate storage infrastructure is expected to have spikes in in-situ reading results.		
13/3/2025, 2:17 pm	EPL85	MH07 Basin		23.51	56	4.75	561	359	8.85	129	1,000.00	Basin is currently being refilled. Cannot take sample.	The leachate storage infrastructure is expected to have spikes in in-situ reading results.		
13/3/2025, 2:26 pm	EPL86	MH03 Basin		27.8	80.4	6.29	1,130.00	724	8.67	147	56.5	No rainfall in last 24 hours	The leachate storage infrastructure is expected to have spikes in in-situ reading results.		
-	EPL98	Rock Blanket diversion monitoring under GFO1 liner		-	-	-	-	-	-	-	-	This location is dry	-		
18/3/2025, 9:50 am	EPL99	Marica Leachate Basin-Turkey's Nest		12.29	69.8	7.46	511	327	10.45	99	170	A green/grey sludge. No odour. Sunny cool morning. No wind. Evidence of grime/gunk on the surface.	Low DO and elevated turbidity can be attributed to the runoff accumulating in the sediment basin. Water was taken for treatment at the process water treatment plant or re-use where parameters where met.		
-	EPL100	Marica Lower Leachate Basin USS Shaft		-	-	-	-	-	-	-	-	Too low to sample	Due to leachate management process upgrades, this location is managed at water levels that prohibit water sampling.		
-	EPL101	Marica Leachate Basin Spoil Pad		-	-	-	-	-	-	-	-	Too low to sample	Due to leachate management process upgrades, this location is managed at water levels that prohibit water sampling.		
1/3/2025, 8:10 am	EPL106	Raine Bay Leachate basin 1		21.14	101.9	9.02	1,379.00	875	7.66	196	20.8	Clear, no odour, 95% full	The leachate storage infrastructure is expected to have spikes in in-situ reading results.		

**EPL 21266 In Situ Water Quality Measurements**

EPL Monthly Monitoring March 2021	

EPL Monthly Monitoring: March 2023												
-	EPL110	Upstream monitoring of Ravine Bay emplacement area	-	-	-	-	-	-	-	-	Could not sample, low water level	-
-	EPL118	Ravine Bay Leachate Basin 2	-	-	-	-	-	-	-	-	Water level too low	-
-	EPL120	Ravine Bay Leachate Basin 4	-	-	-	-	-	-	-	-	Water level too low	-
9/9/2023, 10:52 am	EPL122	GFO1 Changer Line (Formerly EPL 508)	17.95	78.8	7.31	539	345	7.86	123	100	Sunny day, clear water, no smelt, very low flow	This location has been an objective of constant monitoring and reporting

**Table 2 - Reservoir Water Quality Data**  
*Tolbino and Tontongoro Reservoirs*

Table 2 - Reservoir Water Quality Data Tahangra and Tantangara Reservoirs			Water Quality Objectives (see note 2)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
Date and time	EPK Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
16/3/2025, 8:07 am	EPJ10	Tahangra Reservoir, downstream of road works and upstream of water intake point	22.97	64.8	5.56	382	66	8.1	193	1.61	Breeze is constant. Cloud overhead and cool morning. No odor. Some visible gunk around the area on the surface. No visible difference in colour.	Elevated EC and pH align with results upstream of works. EC and pH are consistent with upgradient conditions in the Tantangara River for March 2025.
16/3/2025, 7:54 am	EPJ11	Tahangra Reservoir, downstream of outlet	22.94	70.6	6.08	63	41	8.03	192	1.15	Water fairly clear, and bubbles on the surface but no sheen. The duck built up a lot before downstream on the corner of the reservoir where the wind was less. There's a slight breeze, it's a cool morning. Relatively clear water. No odor.	Elevated EC and pH align with results upstream of works. EC and pH are consistent with upgradient conditions in the Tantangara River for March 2025.
26/3/2025, 9:38 am	EPJ28	Tantangara Reservoir, upstream of works in the mouth of the Murrumbidgee River	18.43	93.2	8.74	27	17	7.82	130	7.3	Foggy day. Water very green. Visible algal bloom. No odor. Rain over the weekend.	This sample is upstream of works and is therefore representative of background conditions.
26/3/2025, 10:15 am	EPJ29	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River	20.14	95.5	8.66	26	17	8.42	140	13.4	Water very green. Visible algal bloom. No odor. Foggy day. Rain last weekend.	This sample is upstream of works and is therefore representative of background conditions.
26/3/2025, 10:07 am	EPJ32	Tantangara Reservoir, Tantangara Intake. Downstream of construction works	20.19	91.5	8.29	26	17	8.18	14	12.9	Water very green. Visible algal bloom. Foggy day. No odor. Rain last weekend.	This location aligns with the upgradient conditions for March 2025.
1/3/2025, 1:04 pm	EPJ38	Tantangara Reservoir, variable location dependant on tide and reservoir levels. Between the employment area and the ancillary facilities for employment activities	22.63	54.1	4.67	36	23	7.94	174	8.8	Sunny day, clear water, no odour	Low DO and elevated EC in turbidity for algal bloom to be attributed to low reservoir levels in preparation for intake works.
8/3/2025, 10:18 am	EPJ39	Confluence of Nungar Creek and Tantangara Reservoir, variable location dependant on tide and reservoir levels. Upstream of Tantangara construction works	17.6	82.1	5.93	29.6	22.4	6.34	664.1	7.17	Low water, low velocity flow. Sunny morning, no fog, light winds, picking up. Visibly clear water, very low pH, fish, minimal weeds. Low water level, foam observed on surface. Visible sediment and slightly turbid water. Low velocity flow.	Low DO and pH can be attributed to low reservoir levels in preparation for intake works.
9/3/2025, 9:00 am	EPJ40	Confluence of the upper Murrumbidgee River and Tantangara Reservoir, variable location dependant on tide and reservoir levels. Upstream of works	16.5	79.3	7.35	31.7	24.6	8.96	625.5	2.63	Low water, low velocity flow, fish, minimal weeds. Low water level, foam observed on surface. Visible sediment and slightly turbid water. Low velocity flow.	Low DO and pH and elevated EC can be attributed to low reservoir levels in preparation for intake works.
16/3/2025, 10:32 am	EPJ46	Tantangara Reservoir, effluent outlet discharging into Tantangara Reservoir from Tantangara STPWWP	20.29	97.1	8.78	26	17	8.5	139	12.5	Water very green. Visible algal bloom. No odor. Foggy day. Rain last weekend.	The elevated pH can be attributed to the significant water level reduction and changes in the surrounding conditions in March 2025.
26/3/2025, 10:23 am	EPJ51	Tantangara Reservoir, downstream of Tantangara STPWWP effluent outlet	20.21	93.8	8.49	26	17	8.43	140	10.7	Water very green. Visible algal bloom. No odor. Foggy day. Rain last weekend.	The elevated pH can be attributed to the significant water level reduction and changes in the surrounding conditions in March 2025.
16/3/2025, 7:40 am	EPJ107	Upstream monitoring of Ravine Bay employment area within Tantangara River	22.01	72.6	6.35	40	26	7.79	193	0.76	Clear water, no visible signs of fish, bubbles or algae on the water. No works going on at the pipe area currently. Slight breeze. Overcast and cool morning. No odors.	Low DO and elevated EC aligns with results upstream of works. EC is consistent with background conditions in the Tantangara River.
16/3/2025, 7:33 am	EPJ108	Monitoring of Ravine Bay employment area (center of PSE) within Tantangara River	21.97	67.8	5.93	38	25	7.72	190	0.85	No odors. Slight breeze. Cool, slightly overcast morning. No visible signs, algae or bubbles on surface. Clear water colour.	Low DO and elevated EC aligns with results upstream of works. EC is consistent with background conditions in the Tantangara River.
16/3/2025, 7:18 am	EPJ109	Upstream monitoring of Ravine Bay employment area within Tantangara River	21.7	75.6	6.65	36	24	7.77	180	0.66	No visible surface bubbles, or odors. No odors. Breeze seen on water. Clear water. Cool morning, some clouds overhead.	Low DO and elevated EC aligns with results upstream of works. EC is consistent with background conditions in the Tantangara River.

### Table 3 - Treated Water Quality Data

Table 3 - Treated Water Quality Data					Water Quality Objectives (see note 3)							Field Comments	Content				
					Temp (°C)		DO (%)		EC (µS/cm)		TDS (mg/L)			pH	Residue (mV)	Turbidity (NTU)	
					DO (mg/L)		DO (mg/L)		DO (mg/L)		DO (mg/L)						
					DO (mg/L)		DO (mg/L)		DO (mg/L)		DO (mg/L)						
Date and Time	EPA Site ID	EPA Site ID	Location Description		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Residue (mV)	Turbidity (NTU)					
16/05/2025, 8:31 am	EP41		Lobs Hole 51W STP/PAT Final Effluent Quality Monitoring Point, Downstream of final effluent treatment tank		25.13	73.6	6.07	6	4	784	507	0.9	Hardly any smell. Clear, no odour. Three samples taken. Plant running for 6+ hours	All reading are within WQO limits.			

**Table 4 - Treated Water Quality Data**

Table 1. Treated Water Quality Data			Water Quality Objectives (see note 2)								
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Residue (mg/L)	Turbidity (NTU)	
Tentangara			-	-	-	200	-	6.5 - 8.0	-	25	
Date and Time	SPS Site ID	Location Description	Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Residue (mg/L)	Turbidity (NTU)	Field Comments
13/7/2025, 8.34 am	EPUS0	Tentangara STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tentangara Reservoir.	16.1	52.2	5.44	18.6	14.6	7.92	703	0.33	All reading are within WQO limits.

**Table 5 - Groundwater Quality Data**  
*GI01 Surface Water and Groundwater*

Table 1 – Groundwater Quality Data G01 Surface Water and Groundwater			Water Quality Objectives (see note 1)									
			Temp (°C)	DO (‰)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			EC – 700 4.5 – 10.0									
Date and Time	EPi Site ID	Location Description	Temp (°C)	DO (‰)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
4/3/2025, 9:05 am	EP56	G01 groundwater upstream east	16.12	15.8	1.55	206	134	7.64	107	54.2	Well – 10m. Breezy day, sunny, dry weather	All readings are within WQO limits.
4/3/2025, 9:24 am	EP57	G01 groundwater upstream west	18.01	19.6	1.85	187	128	7.17	247	62.6	Well – 14.9m water depth. Sunny breezy day	All readings are within WQO limits.
4/3/2025, 11:09 am	EP58	G01 groundwater downstream	20.63	17.5	1.57	952	609	6.07	199	127	Well – 6.66m. No recent rain. Hot dry weather	Standard EC and low pH are generally consistent with historical ranges for this location. However, observed pump and suction head loss is the process of being upgraded.
15/3/2025, 8:35 am	EP68	Tantangara groundwater downstream west	14.56	55.2	5.62	22	14	5.99	228	2.9	Water is pouring out. The flow of water is continuous. No obvious odours. Sunny dry weather. EPi teams are developing up gradient of the bore.	Low pH and EC are well outside the natural ranges for March 2023. These fall well with current seasonal changes.

## EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring March 2023

1st Monthly Monitoring March 2025												
15/3/2025, 8:50 am	EP09	Tantangan groundwater downstream East	15.55	45.3	4.52	22	14	6.3	231	24.1	SW colour was orange tinge. No obvious odor. Pse works developing up gradient/adjacent. Sunny dry day	Low pH and EC meet the historical ranges for March 2025. These fall in line with current seasonal changes
15/3/2025, 11:46 am	EP70	Tantangan groundwater upstream	18.1	45.4	4.3	121	79	6.49	217	142	Settles of orange colored sediment at bottom of hydra sleeve. Clear at top. No odors. Hot sunny weather	This location is upgradient of works and therefore representative of background conditions
18/3/2025, 9:20 am	EP72	Marica groundwater upstream	12.39	80	8.55	53	35	5.89	204	68	SW: 36.7m. Low turbidity orange tinge, clear at top. No odor. Sunny cool dry morning. Bore is in fact no leaks.	This location is upgradient of works and therefore representative of background conditions
	EP73	Marica groundwater downstream	-	-	-	-	-	-	-	-	-	Due to the ongoing work in the PSE area, this location has been decommissioned and relocated. The new line will be camped in the following months.
19/3/2025, 7:35 am	EP80	LHG groundwater upstream	13.97	22.3	2.29	737	472	6.45	76	72.3	SW: 20.5m. Strong smell of sulphuric acid. Very orange, floating particles - hadn't settled. No recent rain, sunny day. Was a slight leak at the bottom of hydraline. Base of the bore needs to be repaired, concrete cracked.	This location is upgradient of works and therefore representative of background conditions
19/3/2025, 8:26 am	EP81	LHG groundwater downstream	15.04	106.3	10.69	809	518	6.68	-28	209	SW: 3.85m (top of casing). Swampy odor. Sediment present	Devalued EC aligns with results upgradient of works.
19/3/2025, 7:54 am	EP82	MF groundwater upstream	13.76	18.7	1.92	3850	1820	7.08	8	29.1	SW: 0.04m. Clear water, sulphuric acid smell. Dry sunny weather. Bore is intact, no holes.	This location is upgradient of works and therefore representative of background conditions
19/3/2025, 7:55 am	EP83	MF groundwater downstream	16.29	49	4.8	737	485	6.27	59	168	SW: 3.89m (from casing). Turbulent water. Swampy odor	Devalued EC and low pH align with results upgradient of works for March 2025. However borehole pump extraction method is currently being upgraded.
19/3/2025, 7:56 am	EP87	MF groundwater downstream	16.46	124.7	12.45	787	510	6.4	238	1000	SW: 3.98m (top of casing)	Devalued EC and low pH align with results upgradient of works for March 2025. However borehole pump extraction method is currently being upgraded.
19/3/2025, 7:40 am	EP88	MF groundwater downstream	15.36	75.9	7.58	900	576	6.79	42	14.1	SW: 3.34m (top of casing). Sulfuric odor, visibly low CPU	Devalued EC aligns with results upgradient conditions for this reporting period.
19/3/2025, 7:08 am	EP89	LHG groundwater downstream	15.23	39.1	3.92	303	197	6.86	230	6.86	SW: 3.30 m. Turbidity towards bottom, orange tinge. No CPU turn up. No odor. No recent rain, dry, cool weather.	This location is within WQD limits.
4/3/2025, 8:42 am	EP30	G01 groundwater downstream	18.09	47	4.44	53	34	5.84	252	96	SW: 13.89 m depth. Water tank, smelted gases unit we purged it. Smelted cleaned down, but was still slightly there. Still the mangroves - rotting organic matter maybe. Not sulphuric. Sunny dry day, slight wind. Weather has been clear and dry recently.	Low pH is generally consistent with the historical data for this location. Borehole extraction method is currently being upgraded at this location.
4/3/2025, 11:24 am	EP31	G01 groundwater downstream	19.39	17.4	1.6	193	126	6.42	16	7.4	SW: 6.62 m. No recent weather effects	Low pH is generally consistent with the historical data for this location.
4/3/2025, 9:43 am	EP32	G01 groundwater downstream	16.84	10.4	3.43	96	62	5.92	200	566	SW: 18.62m. Super strong weather	Low pH is generally consistent with the historical data for this location.
4/3/2025, 9:50 am	EP33	G01 groundwater downstream	16.93	10	0.97	207	134	6.43	17	160	SW: 15.5 m. Super strong smell of sulphuric acid. More turbid than last time. New works of taking height off of stockpile upstream	Low pH is generally consistent with the historical data for this location.
4/3/2025, 10:06 am	EP34	G01 groundwater downstream	16.67	15.7	1.52	142	92	6.39	80	50.4	SW: 13.34m depth of water. Works upstream of taking height off of gbs. Sunny dry weather otherwise	Low pH is generally consistent with the historical data for this location.
4/3/2025, 10:52 am	EP35	G01 groundwater downstream	21.79	18.2	1.59	192	397	6.13	202	79.1	SW: 6.89 m depth. No new works. Sunny dry weather recently	Devalued EC and low pH have been consistent at this location for this reporting period. This location is currently undergoing upgrades in PSE extraction method.
4/3/2025, 10:22 am	EP36	G01 groundwater downstream	18.65	50.7	4.72	6450	911	7.06	168	1890	SW: 5.10 m depth. No new works around. Sunny dry weather recently. Turbidity above 1000	Devalued EC is consistent with the historical ranges for March 2025.
4/3/2025, 11:43 am	EP37	G01 groundwater downstream	19.68	53	5.8	377	245	6.39	109	7.4	SW: 4.68 m. Dry sunny weather	Devalued EC and low pH have been consistent at this location for this current seasonal range.
	EP302	Groundwater monitoring associated with the Marica emplacement area or Marica Trail	-	-	-	-	-	-	-	-	-	Due to the ongoing work in the PSE area, this location has been decommissioned and relocated. The new location will be camped in the following months.
15/3/2025, 9:58 am	EP303	Upstream groundwater monitoring west of the Tantangan emplacement area	14.7	41.7	4.23	86	30	6.38	222	2.8	SW: 11.35m. Visible particles floating around otherwise very clear water. No odor. Sunny dry day.	This location is upgradient of works and therefore representative of background conditions.
15/3/2025, 10:20 am	EP304	Downslope groundwater monitoring east of the Tantangan emplacement area	15.98	43.1	4.25	40	26	6.03	238	14.4	SW: 3.28 m. Rabbit wears running under the concrete that is securing the bore - exposed holes. Very low sediment seen at the bottom of the hydra sleeve otherwise the water was very clear. No odor. Sunny dry weather. Bore is in good shape.	Low pH aligns with results upgradient of PSE.
15/3/2025, 10:53 am	EP305	Downslope groundwater monitoring east of the Tantangan emplacement area	16.95	46.5	4.5	163	106	5.78	243	15.6	Water was running slow out of pump, during mixing the bore was very cloudy. Once we moved the bore it was clear water flow. No odor. Sample taken from the end of the bore was clear. No odor. Sunny dry weather. Bore is in good shape.	Low pH aligns with results upgradient of PSE.
20/3/2025, 11:31 am	EP113	Upstream east monitoring of Ravine Bay emplacement area	14.73	126.5	12.82	127	83	7.39	201	566	1.54m SWL (from top of casing). Norbita is used to sample. Visibly clear water with slight leachy color.	All reading are within WQD limits.
20/3/2025, 11:25 am	EP114	Upstream west monitoring of Ravine Bay emplacement area	16.66	88.8	8.63	327	213	7.55	35	327	SW: 3.18m (from top of casing). Clear water, no seep	All reading are within WQD limits.
20/3/2025, 11:14 am	EP115	Downstream east monitoring of Ravine Bay emplacement area	15.88	97.5	9.64	298	194	7.5	-21	172	Sampled using Norbita S. SWL 10.05m (from top of casing). Sulfuric odor. No seep. Water smells turbid.	All reading are within WQD limits.
20/3/2025, 11:05 am	EP116	Downstream west monitoring of Ravine Bay emplacement area	15.27	157.7	15.58	187	0.121	7.47	228	1100	Norbita S used. SWL 8.48m (top of casing). Very turbid water. No seep or odor.	All reading are within WQD limits.
20/3/2025, 11:00 am	EP117	Downstream monitoring of Ravine Bay emplacement area	15.66	108.4	10.77	121	10.77	7.41	-17	1000	15.87 SWLs (from top of casing). Turbulent and cloudy water. Swampy odor. Thicken on Norbita S	All reading are within WQD limits.

Note 1: Water Quality Objective values for the Yarrangobilly River and Minor Watercourses refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000)

Note 2: Water Quality Objective values for Taibingo Reservoir are the default trigger values for physical and chemical stressors in south-east Australia (freshwater lakes and reservoirs) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000).

Note 3: Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works FIS.

Note 4: Water Quality Objective values for groundwater reference the default release values for physical and chemical stressors in south-west Australia (unless stated) for pH and electrical conductivity.

[illegible]

**Snowy Hydro 2.0 Main Works**  
**Monthly EPL Sampling: 01-31 March 2025 - Talbingo and Tantangara Reservoir**

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
<b>Field</b>			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-110
Turbidity	NTU	-	1-20
<b>Laboratory analyses</b>			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO <sub>x</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	250
Dissolved Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
<b>Inorganics</b>			
Cyanide Total	µg/L	4	7
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	5
<b>Metals</b>			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	34
Iron (dissolved)	µg/L	2	100
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.5
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Faecal Coliforms	CFU/100mL	1	10/100*
Biochemical Oxygen Demand	mg/L	2	1/5*

\* Water Quality Objective values for Talbingo and Tantangara Reservoir refer to the default trigger values for physical and chemical stressors in south-east Australia (fresh lakes and reservoirs) for the protection of 95% of aquatic species ANZECC / ARMCANZ (2000); they are not pollutant limits imposed by the NSW Government.

\*\* Algal blooms can present as faecal coliforms

<sup>a</sup> 90th percentile concentration limits / 100 percentile concentration limits.

- Sample not required at this location.

[illegible]

**Monthly EPL Sampling: 01-31 March 2025 - Discharge Water**

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
<b>Flow Rate</b>			
Inflow <sup>a</sup>	ML/day	-	-
Outflow <sup>a</sup>	ML/day	-	4.32 (EPL 43 / 50)
<b>Field</b>			
pH	pH Unit	-	6.5-8.5
Electrical Conductivity	µS/cm	-	700 (EPL 41) / 200 (EPL 50)
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	15
Dissolved Oxygen	% saturation	-	No Water Quality Objective Value
Turbidity	NTU	-	<25
<b>Laboratory analytes</b>			
Total suspended solids	mg/L	5	5/10
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
<b>Nutrients</b>			
Ammonia as N	µg/L	10	200/2000 <sup>a</sup>
Nitrite + Nitrate as N (NO <sub>x</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350/- <sup>a</sup>
Reactive Phosphorus	µg/L	1	No Water Quality Objective Value
Phosphorus (Total)	µg/L	10	100/300 <sup>a</sup>
<b>Inorganics</b>			
Cyanide Total	µg/L	4	No Water Quality Objective Value
<b>Hydrocarbons</b>			
Oil and Grease	mg/L	1	2/5 <sup>a</sup>
<b>Metals</b>			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	8
<b>Biological</b>			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>a</sup>
Biological Oxygen Demand	mg/L	2	5

EPL 41	EPL 43	EPL 44	EPL 45	EPL 47	EPL 48	EPL 49	EPL 50
16/03/2025							
-	0.0000	0.2650	0.0512	0.2177	0.0970	0.7472	-
-	-	-	-	-	-	-	-
12/03/2025							
7.84	-	-	-	-	-	-	7.92
6	-	-	-	-	-	-	18.6
507	-	-	-	-	-	-	701
25.15	-	-	-	-	-	-	16.1
73.6	-	-	-	-	-	-	55.2
0.9	-	-	-	-	-	-	0.53
<5	-	-	-	-	-	-	<5
<1	-	-	-	-	-	-	<1
40							
100	-	-	-	-	-	-	<10
<100	-	-	-	-	-	-	<100
100	-	-	-	-	-	-	<100
<10	-	-	-	-	-	-	<10
<10	-	-	-	-	-	-	10
<4							
<1.0	-	-	-	-	-	-	<1
<5							
<0.2	-	-	-	-	-	-	<0.2
<0.2	-	-	-	-	-	-	<0.2
<0.5	-	-	-	-	-	-	<0.5
<2	-	-	-	-	-	-	<2
<0.1	-	-	-	-	-	-	<0.1
<0.5	-	-	-	-	-	-	<0.5
<0.5	-	-	-	-	-	-	<0.5
<0.01	-	-	-	-	-	-	<0.01
<1	-	-	-	-	-	-	<1
11.00							
<2	-	-	-	-	-	-	<1

Note: Treated water was not being discharged at Talbingo Reservoir at the time of EPL sampling.

There is no 100th percentile limit for Nitrogen (Total).

\* Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

- Samples not required

<sup>a</sup> 90 Percentile concentration limit/100 Percentile limit

<sup>a</sup> Inflows to STP and CWTP do not directly correspond to outflow at RO as much of the water is reused on site



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Table 1 - Surface Water Quality Data  
River and Minor Watercourses

Date and Time		EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
				Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
				95-110			90-150		6.5-8.0		2-25		
11/4/2025, 9:22 am	EPL5	Yarrangobilly River, upstream of the exploratory tunnel and construction pad		12.21	92.3	9.89	150	96	8.14	173	3.83	Clear day, no recent rain. Flow and water level average. Low turb. No odours. No unusual algae growth.	Results align with historically recorded data, and seasonal changes at time of sampling.
11/4/2025, 10:02 am	EPL6	Wallaces Creek, upstream of Yarrangobilly River and Wallaces Creek confluence		12.56	96.7	10.29	127	83	8.09	173	0.59	Clear day. No recent rain. Water level and flow average. No odour or unusual algae growth.	The results in this location is indicative of data recorded historically. The changes occurred in temperature and flow is in alignment with seasonal change.
11/4/2025, 11:35 am	EPL8	Yarrangobilly River, downstream of Lick Hole Gully		16.69	89.3	8.69	153	99	8.18	175	0.86	Clear day. Average flow and water level. No odour or unusual algae growth. Low turb.	The results align with historical data and are within expectations for seasonal change.
11/4/2025, 11:53 am	EPL9	Yarrangobilly River, downstream of the accommodation camp and upstream of Tallbingo Reservoir		15.83	97.9	9.69	149	97	8.18	176	0.69	Sunny day. Water level and flow average. Low turb. No odour or unusual algae growth. No recent rain.	The results consistent with previous sample rounds and are within expectations for seasonal conditions.
11/4/2025, 9:42 am	EPL12	Yarrangobilly River, immediately downstream of portal pad		12.36	93.3	9.96	147	95	8.18	167	0.4	Sunny day. No recent rain. Water level and flow average. Low turb. No odour or unusual algae growth.	Results for this location are representative of previous rounds of sampling. Large decrease in temperature compared to last month consistent with seasonal change.
11/4/2025, 10:19 am	EPL14	Yarrangobilly River, downstream of road construction areas		13.31	95.1	9.94	144	94	8.2	173	1.11	Sunny day. No recent rain. Water level and flow average. No odour. No unusual algae growth. Low turb.	The results for this location align with data recorded during previous sampling rounds, and are within expectations for seasonal conditions.
11/4/2025, 10:39 am	EPL15	Yarrangobilly River, downstream of road construction areas		13.84	97.2	10.05	146	95	8.17	176	0.3	Sunny day. No recent rain. Low turb. Water level and flow average. No odour or unusual algae growth.	Results for this location are representative of the location according to previous sample rounds. Large decrease in temperature compared to last month consistent with seasonal change.
11/4/2025, 12:07 pm	EPL16	Yarrangobilly River, downstream of road construction areas		15.63	93.8	9.32	147	95	8.34	170	0.3	Sunny day. Average flow and water level. No recent rain. No odour or unusual algae growth.	The results for this location align with historical data recorded previously as well as seasonal conditions.
9/4/2025, 9:29 am	EPL24	Yarrangobilly River tributary (Watercourse Z), directly downstream of road		14.29	50.6	5.17	922.00	590	6.83	112	18.6	Stream is extremely low, no odour, clear colour. No pre rainfall. Lots of vegetation in and around the creek. Watercress spray the batteries within 30m of site and upstream of site.	Results are consistent with previous samples taken here the stream has been at low levels. High electrical conductivity and low DO is typical of very low stream flows.
13/4/2025, 8:21 AM	EPL26	Lumbene River downstream of Marica Road		10.46	74.3	8.29	37	24	8.23	124	16.4	Obvious animal tracks around banks of stream. Clear water no odours, low stream. Dry sunny weather no wind, no pre rainfall	Low DO aligns is consistent with upstream data and previous results recorded.
11/4/2025, 9:30 AM	EPL27	Lumbene River upstream of Marica Road		9.27	77.7	8.92	32	21	8.09	133	14.2	Water steady flow, brown algae at the bottom. Water is clear and odorless. No pre rainfall	Location is upstream of any works. Results are consistent with previous sampling.
6/4/2025, 8:56 am	EPL30	Kellys Plain Creek, downstream of accommodation camp and laydown areas		8.13	75	8.88	11	7	7.66	236	6.3	Low steady flow, no odours, clear water, sunny dry cool day. No pre rainfall	Low DO is consistent with upstream data and previous results recorded. The Low Electrical conductivity results are lower than the results we have previously sampled, though it is still within range throughout our sampled data.
6/4/2025, 9:13 am	EPL31	Kellys Plain Creek, upstream of accommodation camp and laydown areas		7.87	58.8	6.99	1	1	7.53	244	3.6	Low steady flow, clear water no odour, cool dry day, no pre rain. Evidence of horse activity around the banks.	The dissolved oxygen results are toward the lower end of the data recorded from previous sampling rounds, although it has been recorded previously.
6/4/2025, 8:33 am	EPL33	Murrumbidgee River, downstream of Tantangara reservoir outlet		14.11	63.2	6.5	7	4	7.51	229	30.8	High flowing, normal level water. Clear, no odours. Overcast cool day.	Low DO results are consistent with the levels recorded by us in previous sampling rounds. Lower EC reports will be investigated.
6/4/2025, 7:56 am	EPL34	Nunger Creek, upstream of Tantangara Road		9.3	61	9.3	13	9	7.87	182	9.4	Water levels normal, flowing steadily. No visible sheen, no odours, clear water. Dry sunny weather, cool temps.	These results are consistent with the data we have recorded in this location, although the low EC is outside the norm.
6/4/2025, 8:03 am	EPL35	Nunger Creek, downstream of Tantangara Road		7.54	68.9	8.25	7.0	4	7.69	180	8.6	Dry, sunny, cool weather. Low, steady stream. In the parts where there is no flow, there is evidence of biological sheen. Water is clear and odorless otherwise.	Low DO is consistent with previous results and typical of low flow.
1/4/2025, 11:40 am	EPL36	Cameron Creek, upstream of works in Rock Forest		13.57	52	5.41	17	11	6.84	167	5.2	Sunny day. Low flow. Biological sheen present. No odour. Some cattle faeces and hoof marks around waters edge.	The data recorded is representative of low water levels and slow flow recorded at the time of the sample. Low EC has been recorded previously in our sample collections.
1/4/2025, 11:09 am	EPL37	Cameron Creek, downstream of works in Rock Forest		12.21	64.9	6.96	22	14	7.45	201	23.5	Sunny day. Low flow. Cattle nearby. Smells of cattle faeces/urine. Muddy water.	Low DO is consistent with previous results and typical of low flow. Low EC has been recorded previously within our sample collections.
9/4/2025, 8:09 am	EPL52	GFO1 leachate basin		13.56	65.5	7.21	960.00	614	8.71	165	73.2	Basin slightly green, normal smell. No pre rainfall, sunny calm morning. Workings ongoing in gfo1	The leachate storage infrastructure is in line with the design function, therefore the high levels of EC and low DO is within range of samples collected previously.
-	EPL53	GFO1 surface water upstream east		-	-	-	-	-	-	-	-	This location is dry.	This location is dry.
-	EPL54	GFO1 surface water upstream west		-	-	-	-	-	-	-	-	This location is dry.	This location is dry.
-	EPL55	GFO1 surface water downstream		-	-	-	-	-	-	-	-	This location is dry.	This location is dry.
-	EPL67	Nunger Creek surface water downstream west from Tantangara emplacement area		-	-	-	-	-	-	-	-	Location is dry	Location is dry.
-	EPL71	Surface water downstream of Marica emplacement		-	-	-	-	-	-	-	-	This location is dry.	This location is dry.
18/4/2024, 12:16 PM	EPL84	F8 Basin		23.65	109.1	9.22	794.00	451	9.19	103	1000	Sunny, no recent rainfall, 65% capacity, brown colour, turbid, no odour	These results are conclusive of the design functions of the leachate infrastructure.
25/4/2025, 11:12 AM	EPL85	MH07 Basin		22.51	77.9	6.73	583	373	9.02	13	1,000.00	Visibly turbid water, no odour	These results are conclusive of the design functions of the leachate infrastructure.
11/4/2025, 10:20 AM	EPL86	MH01 Basin		19.01	90.2	8.1	871.00	557	8.85	-15	190	No sheen or odour	These results are conclusive of the design functions of the leachate infrastructure.

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-	EPL96	Rock blanket diversion monitoring under GFO1 liner		-	-	-	-	-	-	-	-	This location is dry	This location is dry - GFO1 basin was being reconstructed.
13/4/2025, 12:12 PM	EPL99	Marica Leachate Basin-Turkey's Nest		17.66	94.9	9.03	479	312	9.5	4	26.6	Blue water, no algae growth. Evidence of ducks. No pre rainfall, dry sunny day. Water is being pumped out by dewatering	These results are conclusive of the design functions of the leachate infrastructure.
9/4/25, 12:34 PM	EPL100	Marica Lower Leachate Basin USS Shaft		16.25	62.3	6.1	1050	670	8.74	74	167	Sunny day, low level of water in the basin, no smell, turbid water	These results are conclusive of the design functions of the leachate infrastructure. They are also representative of the low levels at time of the samples being taken.
13/4/2025, 11:58 AM	EPL101	Marica Leachate Basin Spoil Pad		18.34	5.33	56.9	1330	848	7.17	115	41.3	Very low water level, green basin colour. Visible sheen in water, rainbow. Algae growth around edge. Breezy, sunny day no pre rainfall.	These results are conclusive of the design functions of the leachate infrastructure. They are also representative of the low levels at time of the samples being taken.



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12/4/2025, 9:28 AM	EPL106	Ravine Bay Leachate basin 1	17.44	89.2	8.5	1,660.00	1,060.00	8.85	44	17	Horba 5 used for sampling. Water is a dark green colour	These results are conclusive of the design functions of the leachate infrastructure.
-	EPL110	Upstream monitoring of Ravine Bay emplacement area	-	-	-	-	-	-	-	-	Location dry	Location dry.
-	EPL118	Ravine Bay Leachate basin 2	-	-	-	-	-	-	-	-	Location dry	Location dry.
-	EPL120	Ravine Bay Leachate basin 4	-	-	-	-	-	-	-	-	Location dry	Location dry.
11/4/2025, 2:30 PM	EPL122	GF01 Drainage Line (Formerly EPL 556)	17.13	88.8	8.54	452	320	8.18	149	129	Bunny day. No recent rain. No odour. Low flow and water level. Milky colour, grey sediment on vegetation around site from where water level was higher.	These results have been previously seen in past sampling rounds, the low DO is conclusive of the low water levels seen.

Table 2. Reservoir Water Quality Data  
Tallibung and Tantangara Reservoirs

Table 2 - Reservoir Water Quality Data Tallibung and Tantangara Reservoirs		Water Quality Objectives (see note 2)									Field Comments		Context					
		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)									
		20 - 120	100 - 110	20 - 30	100 - 150	100 - 150	6.5 - 8.5	100 - 150	1 - 20									
Date and Time	EPL Site ID	Location Description							Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	Field Comments	Context
13/4/2025, 8:54 AM	EPL10	Tallibung Reservoir, downstream of road works and upstream of water intake point							18.32	87.2	8.2	47	30	7.35	189	5.1	Sunny day. No wind. No recent rain. Water has green colour, more than ravine bay. Water warmer than ravine bay. No odour.	The high EC is in line with results previously recorded by our samples.
13/4/2025, 8:25 AM	EPL11	Tallibung Reservoir, downstream of outlet							18.42	91.2	8.56	41	27	7.35	180	9.5	Sunny day, slightly greener than ravine bay, water temp slightly warmer than ravine bay, no recent rainfall, no odour, zero wind, dusty layer across surface near intake.	This data aligns with data recorded in previous rounds of sampling, the high EC is within range when reviewing previous samples taken.
16/4/2025, 9:46 AM	EPL28	Tantangara Reservoir, upstream of works in the mouth of the Murrumbidgee River							15.3	89.7	9	13.9	11	8.93	110.1	6.85	Sunny; no wind; no previous rainfall. Organic material (including algae) present, no odour or oily sheen; algae causing water to have blue-green colouration. SPOTLINE SAMPLE.	DO and EC results are in line with previously recorded data at this location, pH levels recorded are within range of data recorded from previous samples taken.
15/4/2025, 10:24 AM	EPL29	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River							14.65	60.1	6.11	27	18	7.82	134	0.2	Clear sunny day, moderate wind. Visible algae, water is green. No odour or sheen.	Although low levels of DO have been recorded in our samples taken previously, it is lower than usual. The low DO could be attributed to the algae bloom recorded at the time of the sample.
15/4/2025, 10:19 AM	EPL32	Tantangara Reservoir, Tantangara Intake. Downstream of construction works							14.7	101.6	10.31	27	17	8.13	110	3.3	Clear sunny day, moderate wind. Visible algae, water is green. No odour or sheen.	These results are consistent with previous sampling rounds.
12/4/2025, 9:23 AM	EPL38	Tantangara Reservoir, variable location dependent on tide and reservoir levels. Between the emplacement area and the ancillary facilities for emplacement activities							14.9	89.1	9	27	17	8.59	113	57.9	Sunny day. No recent rainfall. Water very green. Visible algae bloom, bright green. Algae concentrated on western side of reservoir. No odour. Water level low.	These results are consistent with previous sampling rounds. The slight elevation of pH and turbidity could be attributed to the low levels of water.
6/4/2025, 11:49 am	EPL39	Confluence of Nungah Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tantangara construction works							11.75	65	7.04	2	1	7.2	209	6	Low level, constant flow of stream. No odour. Evidence of animal activity on banks. Clear water. Some bubbles on surface, windy, sunny day. No grey rainfall.	Low DO levels are within range for previous samples recorded. EC was also observed below the norm.
12/4/2025, 11:45 PM	EPL40	Confluence of the upper Murrumbidgee River and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works							16.2	101.3	9.96	32.5	25	7.72	143.5	3.28	Clear sunny day with minimal wind. Low flow water with visible organic material. Sampled from shore due to low reservoir level and inaccessibility via boat. No odour or sheen. Public campers (8 vehicles) 400m away from sample point.	These results are consistent with previous sampling rounds.
15/4/2025, 10:52 AM	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP							13.84	93.6	9.67	28	18	7.74	165	8.2	Clear sunny day, moderate wind. Visible algae, water is green. No odour or sheen.	These results are consistent with previous sampling rounds.
16/4/2025, 10:54 AM	EPL51	Tantangara Reservoir, downstream of Tantangara STP/PWTP diffuser outlet							16.6	91	8.86	27.5	21	7.87	144.7	10.96	Sunny; no wind; no previous rainfall. Organic material present (not as much as further upstream) no odour or oily sheen. SPOTLINE SAMPLE.	These results are consistent with previous sampling rounds.
13/4/2025, 8:05 AM	EPL107	Upstream monitoring of Ravine Bay emplacement area within Yarrangubilly River							17.75	85	8.09	38	25	7.24	183	0.5	Sunny day, no recent rain, water is slightly green but not visible algae growth, clearing occurring at pos	These results are consistent with previous sampling rounds.
13/4/2025, 7:30 AM	EPL108	Monitoring of Ravine Bay emplacement area (centre of PSE) within Yarrangubilly River							17.4	89.2	8.53	33	21	7.29	175	11	Sunny day. No odour. Water green but no visible algae. No recent rain. Clearing occurring at ravine bay.	These results are consistent with previous sampling rounds.
13/4/2025, 7:40 AM	EPL109	Upstream monitoring of Ravine Bay emplacement area within Yarrangubilly River							17.27	85.7	8.23	35	23	7.90	145	15.9	Sunny day. Light breeze. Water green but no visible algae. No odour	These results are consistent with previous sampling rounds.

Table 3. Treated Water Quality Data  
Tallibung

Table 3 - Treated Water Quality Data Tallibung		Water Quality Objectives (see note 3)								
		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)	
		20 - 120		20 - 120		6.5 - 8.5		25		
Date and Time	EPL Site ID	Location Description							Field Comments	Context
23/4/2025, 9:19 AM	EPL41	Jobs Hole STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tallibung Reservoir.							Clear water. No odour.	These results are consistent with previous sampling rounds.

Table 4. Treated Water Quality Data  
Tantangara

Treated Water Quality Data		Water Quality Objectives (see note 3)											
Temp (°C)		DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)					
20 - 120		20 - 120		20 - 30		6.5 - 8.5			1 - 25				
Date and Time	EPL Site ID	Location Description										Field Comments	Context
27/4/2025, 11:57 AM	EPL50	Tantangara STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tantangara Reservoir.										Sample taken from RO Plant. Water clear; no turbidity; no visible sediment present; no odour or oily sheen	These results are consistent with previous sampling rounds.

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GF02 Surface Water and Groundwater

Surface Water and Groundwater											
		Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
		-	-	-	10 - 350	-	6.5 - 8.0	-	-		
Date and Time	EPL Site ID	Location Description							Field Comments	Context	
14/4/2025, 2:47 PM	EPL56	18.47	24.6	2.3	214	139	7.4	186	4.9	DWS 8.60m. Some cloud cover. No recent rainfall. No odour. Clear water. Concrete disintegrating around bore cap. Top of GF02 being shaped. These results are consistent with previous sampling rounds.	
14/4/2025, 3:01 PM	EPL57	16.29	15.7	1.54	194	126	7.44	264	91.9	DWS 15.06m. Clear water. Clear day. No recent rain. No odour. New track right next to bore recently built as part of GF02 shaping. These results are consistent with previous sampling rounds.	



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14/4/25, 8:22 AM	EPL58	GF01 groundwater downstream	15.82	27.4	2.72	962	616	6.11	134	95.2	BWL 7.39m, very clear water, no odour, sunny day, works ongoing in GF01	Elevated results for EC have been increasing recently, and could be a result of being a downstream location of the PSD area. pH for this location has regularly recorded lower concentrations.
6/4/2025, 12:08 pm	EPL68	Tantangara groundwater downstream West	12.34	72.6	7.77	2	1	5.72	288	15.1	Running fine, clear water, no odours. No prev rainfall. Windy sunny day. Works continuing on site	EC results are below WQ2's. Low pH levels are consistent with previous monitoring data.
6/4/2025, 12:19 pm	EPL69	Tantangara groundwater downstream East	12.4	42.1	4.5	9	6	5.9	289	23.8	Water level 2.45m, Depth of well 8.43m. Clear water, very little sediment build up at bottom. No odours. Works ongoing adjacent to bore. No prev rainfall	The results for EC are outside of the range of recorded in previous monitoring event, possibly resulting from agitation during sampling. The low pH levels are consistent with previous samples taken.
6/4/2025, 11:03 am	EPL70	Tantangara groundwater upstream	12.4	42.1	4.5	9	6	5.9	289	23.8	Water level 2.45m, Depth of well 8.43m. Clear water, very little sediment build up at bottom. No odours. Works ongoing adjacent to bore. No prev rainfall	The results for EC are outside of the range of recorded in previous monitoring event, possibly resulting from agitation during sampling. The low pH levels are consistent with previous samples taken.
13/4/2025, 11:36 AM	EPL72	Marica groundwater upstream	14.68	50.9	5.16	46	30	7.21	105	206	TWL 17.71m, BBL 44.40m. Cloudy at bottom with grey colouring. No odours. No prev rainfall. Borehole well intact.	These results are within historic records for this location. The elevated turbidity is an outlier for data recorded in previous sample rounds.
-	EPL73	Marica groundwater downstream	-	-	-	-	-	-	-	-	This site has been decommissioned.	This site has been decommissioned.
11/4/2025, 10:23 AM	EPL80	JHG groundwater upstream	18.13	20.8	1.96	985	438	6.8	41	14.3	Water level - 29.49 m	These results are consistent with previous sampling rounds.
11/4/25, 10:38 AM	EPL81	JHG groundwater downstream	19.05	27.1	2.51	809	550	7.1	-167	669	Turbid muddy water. Depth to water 3.99m from top of casing.	The elevated EC results have been recorded in previous sampling rounds. The elevated turbidity is within data recorded in previous sampling rounds.
11/4/2025, 10:28 AM	EPL82	MY groundwater upstream	17.18	17.4	1.67	2180	1400	6.65	-50	43.9	Water level 6.02 m	The elevated EC results are consistent with sampling rounds within the past year.
11/4/25, 9:43 AM	EPL83	MY groundwater downstream	17.36	42.8	4.1	815	521	6.78	-32	74.7	Depth of water is to top of casing 3.96m. Horiba 5 used.	The elevated EC results are consistent with sampling rounds within the past year.
11/4/2025, 10:32 AM	EPL87	MY groundwater downstream	17.43	40.3	3.85	651	417	6.72	152	1000	Water level 4.3 m	The elevated EC results are consistent with previous samples taken.
11/4/2025, 9:16 AM	EPL88	MY groundwater downstream	16.1	37.7	3.71	788	519	7.14	-215	18.7	Depth of water 3.77m (top of casing). Horiba 5 used. Water is visibly turbid with a strong sulphur smell	The elevated EC results are consistent with previous sampling rounds.
11/4/2025, 10:34 AM	EPL89	JHG groundwater downstream	18.01	60.6	5.98	352	196	6.81	145	14.8	Water level 3.29 m	These results are consistent with previous sampling rounds.
14/4/2025, 7:47 am	EPL90	GF03 groundwater downstream	13.59	71.8	7.67	62	40	7.23	130	100	TWL 13.14m. Sunny day. No recent rain. Bore directly below batter where water carts are used	These results are consistent with previous sampling rounds.
14/4/2025, 8:01 AM	EPL91	GF01 groundwater downstream	14.51	37.1	3.78	238	142	6.98	-108	11.2	TWL 8.14M. Sunny day. No recent rain. Slight sulphur odour.	These results are consistent with previous sampling rounds.
14/4/2025, 7:47 AM	EPL92	GF01 groundwater downstream	13.56	93.8	9.76	134	87	7.87	142	930	TWL - 19.95m, muddy water, no smell, sunny day	These results are consistent with previous sampling rounds. Elevated turbidity to be managed through upcoming bore development program.
14/4/2025, 7:58 AM	EPL93	GF01 groundwater downstream	13.81	91	9.41	207	134	7.84	114	895	TWL - 14.18m, turbid water, no odour, sunny day	These results are consistent with previous sampling rounds. The high turbidity could be attributed to bore development, this will be monitored.
14/4/2025, 8:02 AM	EPL94	GF01 groundwater downstream	13.88	91	9.4	151	98	7.78	12	107	TWL - 13.54m, sunny day, a bit turbid water, no odour	These results are consistent with previous sampling rounds.
14/4/2025, 8:14 AM	EPL95	GF01 groundwater downstream	15	89.9	9.04	821	526	7.89	94	151	TWL - 7.32m, very clear water, no odours, sunny day, works ongoing in GF01	These results are consistent with previous sampling rounds.
6/4/2025, 7:54 am	EPL96	GF01 groundwater downstream	11.79	99.4	10.75	291	189	6.72	216	809	TWLs 30m, BBL14.45m. No concrete, or lid on bore. The pipe is cracked. Orange colour, no odour, no prev rainfall. Likely ingress of surface water. Works ongoing at GF01	These results are consistent with previous sampling rounds. The High turbidity could be attributed to bore development, this will be monitored.
14/4/2025, 9:26 AM	EPL97	GF01 groundwater downstream	15.49	22.7	2.26	363	236	6.84	113	1.3	TWL 6.35m. Sunny day. No recent rain. Bore plinth loose, concrete unstable. Low turb.	These results are consistent with previous sampling rounds.
-	EPL102	Groundwater monitoring associated with the Marica emplacement area on Marica Trail	-	-	-	-	-	-	-	-	This location has been decommissioned.	This location has been decommissioned.
6/4/2025, 10:47 AM	EPL103	Upstream groundwater monitoring west of the Tantangara emplacement area	11.05	39.2	4.11	13	8	6.01	296	8.6	Water level 11.31m, Depth of well 22.24m. Clear water, no sediment build up. No odours. Works continuing on site.	The results, including the low EC, is consistent with samples previously taken.
6/4/2025, 12:34 pm	EPL104	Downslope groundwater monitoring east of the Tantangara emplacement area	12.6	39.7	4.22	14	9	5.95	296	11.7	Water level 4.44m, Depth of well 6.82. Cold sunny day, no prev rainfall. Clear water, very little sediment particles orange at very bottom. No odour.	The results, including the low EC, is consistent with samples previously taken.
6/4/2025, 11:30 am	EPL105	Downslope groundwater monitoring east of the Tantangara emplacement area	12.64	40	4.25	130	84	5.83	310	168	No odour, clear colour, running slowly out of bore. Pump is preventing digging and depth recording.	The results, including the low EC, is consistent with samples previously taken.
4/4/2025, 12:11 PM	EPL113	Upstream east monitoring of Ravine Bay emplacement area	15.08	17.7	1.78	188	109	6.31	154	437	Water level reading: 3.07	These results are consistent with previous sampling rounds.

EPL 21266 In Situ Water Quality Measurements  
EPL Monthly Monitoring April 2025

Monitoring Event Log, April 2025												
4/4/2025, 12:56 PM	EPL124	Upstream west monitoring of Ravine Bay emplacement area	15.49	21.6	2.15	397	258	7.41	27	20.4	WLR: 31.83	These results are consistent with previous sampling rounds.
4/4/2025, 12:33 PM	EPL125	Downstream east monitoring of Ravine Bay emplacement area	15.51	13.2	1.32	363	236	7.38	36	220	Water level reading: 15.98	
4/4/2025, 1:25 PM	EPL126	Downstream west monitoring of Ravine Bay emplacement area	15.55	54.5	5.43	178	115	6.88	128	1,000	WLR: 8.23	These results are consistent with previous sampling rounds.
4/4/2025, 2:16 PM	EPL127	Downstream monitoring of Ravine Bay emplacement area	15.82	10.8	1.07	149	97	6.34	0	1,000	WLR: 15.70	These results are consistent with previous sampling rounds.

Note 1: Water Quality Objective values for the Yarrangobilly River and Minor Watercourses refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000).

Note 2: Water Quality Objective values for Taibingo Reservoir are the default trigger values for physical and chemical stressors in south-east Australia (freshwater lakes and reservoirs) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000).

Note 3: Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

Note 4: Water Quality Objective values for groundwater reference the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for pH and electrical conductivity.

Snowy Hydro 2.0 Main Works  
Monthly EPL Sampling: 01-31 March 2025 - Groundwater

[illegible]

\* Water Quality Objectives values for groundwater refer to the default trigger values for physical and chemical stressors in southwest, from the protection of 10% of aquatic species ANZECC / ARMCANZ (2000), they are not pollutant levels imposed by EPA TLZs.

Snowy Hydro 2.0 Main Works  
Monthly EPL Sampling: 01-30 April 2025 - Talbingo and Tantangara Reservoir

Analyte	Unit	Limit of Reporting	Water Quality Objective Value*
Field			
pH	pH Unit	-	6.5-8
Electrical Conductivity	µS/cm	-	20-30
Oxidation Reduction Potential	mV	-	No Water Quality Objective Value
Temperature	°C	-	No Water Quality Objective Value
Dissolved Oxygen	% saturation	-	90-130
Turbidity	NTU	-	1-20
Laboratory analyses			
Total suspended solids	mg/L	5	No Water Quality Objective Value
Hardness as CaCO <sub>3</sub> (filtered)	mg/L	1	No Water Quality Objective Value
Nutrients			
Ammonia as N	µg/L	10	10
Nitrite + Nitrate as N (NO <sub>x</sub> )	µg/L	10	10
Kjeldahl Nitrogen Total	µg/L	100	No Water Quality Objective Value
Nitrogen (Total)	µg/L	100	350
Reactive Phosphorus	µg/L	1	5
Phosphorus (Total)	µg/L	10	10
Inorganics			
Cyanide Total	µg/L	4	7
Hydrocarbons			
Oil and Grease	mg/L	1	5
Metals			
Aluminium (dissolved)	µg/L	5	55
Arsenic (dissolved)	µg/L	0.2	13
Chromium (III+VI) (dissolved)	µg/L	0.2	1
Copper (dissolved)	µg/L	0.5	14
Iron (dissolved)	µg/L	2	300
Lead (dissolved)	µg/L	0.1	3.4
Manganese (dissolved)	µg/L	0.5	1,900
Nickel (dissolved)	µg/L	0.5	11
Silver (dissolved)	µg/L	0.01	0.05
Zinc (dissolved)	µg/L	1	6
Biological			
Faecal Coliforms	CFU/100mL	1	10/100 <sup>a</sup>
Biochemical Oxygen Demand	mg/L	2	1/5 <sup>a</sup>

EPL10	EPL11	EPL28	EPL29	EPL32	EPL38	EPL39	EPL40	EPL46	EPL51	EPL107	EPL108	EPL109
13/04/2025	13/04/2025	16/04/2025	15/04/2025	15/04/2025	12/04/2025	6/04/2025	12/04/2025	15/04/2025	16/04/2025	13/04/2025	13/04/2025	13/04/2025
7.35	7.35	8.93	7.82	8.13	8.59	7.2	7.72	7.74	7.87	7.24	7.29	7.9
47	41	13.9	27	27	27	2	32.5	28	27.5	38	33	35
193	190	110	134	110	113	219	143.5	165	144.7	183	175	145
18.32	18.42	15.3	14.65	14.7	14.9	11.75	16.2	13.84	16.6	17.75	17.4	17.27
87.2	91.2	89.7	60.1	101.6	89.1	66	101.3	93.6	91	85	89.2	85.7
5.1	9.5	6.85	0	3.3	57.9	6	3.28	8.2	10.96	0.5	11	15.9
<5	<5	17	<5	<5	18	<5	<5	<5	<5	<5	<5	<5
22	19	9	9	9	9	7	9	9	9	10	10	10
30	30	<10	10	10	<10	<10	<10	<10	<10	<10	<10	<10
<10	<10	10	<10	<10	<10	80	<10	<10	<10	<10	<10	<10
100	100	1,200	500	300	800	100	<100	300	400	<100	<100	<100
100	100	1,200	500	300	800	200	<100	300	400	<100	<100	<100
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	20	70	30	30	40	150	20	20	50	20	20	<10
<4	<4	<8	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
<5	<5	15	9	9	9	12	13	8	9	<5	<5	<5
0.4	0.4	0.3	0.3	0.4	0.4	<0.2	<0.2	0.4	0.4	0.4	0.4	0.3
<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.2	<0.2	<0.2	<0.2
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
6	4	72	55	56	52	77	58	61	58	4	4	4
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.2	2.4	<0.5	<0.5	<0.5	<0.5	<0.5
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
28	21	100	-	-	-	-	-	-	1	-	-	-
4	3	4	-	-	-	-	-	-	2	-	-	-

**Snowy Hydro 2.0 Main Works**  
**Monthly EPL Sampling: 01-30 April 2025 - Volumes**

Date
1/04/2025
2/04/2025
3/04/2025
4/04/2025
5/04/2025
6/04/2025
7/04/2025
8/04/2025
9/04/2025
10/04/2025
11/04/2025
12/04/2025
13/04/2025
14/04/2025
15/04/2025
16/04/2025
17/04/2025
18/04/2025
19/04/2025
20/04/2025
21/04/2025
22/04/2025
23/04/2025
24/04/2025
25/04/2025
26/04/2025
27/04/2025
28/04/2025
29/04/2025
30/04/2025

EPL 43 *	EPL 50 ^
Discharge volume (Megalitres)	
-	0.12
0.52	0.63
0.46	-
0.38	0.82
0.28	-
-	0.74
-	-
-	0.34
-	0.58
-	-
-	0.44
0.17	0.33
-	0.37
-	0.61
0.28	-
-	0.55
-	0.18
-	-
-	-
-	-
-	0.07
-	-
0.43	0.14
0.56	-
-	-
0.37	-
-	-
0.46	-
-	-

EPL 44	EPL 45	EPL 47	EPL 48	EPL 49
Discharge volume (Megalitres)				
0.21	0.05	0.19	0.06	1.10
0.25	0.06	0.23	0.08	0.95
0.22	0.05	0.23	0.09	0.62
0.14	0.07	0.28	0.10	0.60
0.04	0.03	0.24	0.07	0.33
0.19	0.06	0.21	0.10	0.72
0.30	0.06	0.25	0.07	0.59
0.46	0.06	0.22	0.09	0.76
0.48	0.06	0.23	0.05	0.52
0.51	0.08	0.17	0.09	0.71
0.25	0.07	0.18	0.28	0.71
0.41	0.05	0.30	0.08	0.48
0.27	0.05	0.23	0.04	0.53
0.27	0.05	0.39	0.03	0.66
0.59	0.05	0.22	0.08	0.52
0.29	0.04	0.20	0.25	0.46
0.16	0.04	0.19	0.09	0.52
0.28	0.06	0.18	0.05	0.56
0.28	0.04	0.20	0.07	0.54
0.31	0.05	0.19	0.09	0.64
0.36	0.05	0.19	0.10	0.51
0.50	0.06	0.20	0.06	0.35
0.41	0.09	0.19	0.03	0.62
0.28	0.06	0.20	0.02	0.33
0.19	0.05	0.23	0.08	0.36
0.27	0.05	0.21	0.08	0.29
0.47	0.06	0.22	0.02	0.58
0.20	0.06	0.26	0.05	0.54
0.49	0.05	0.22	0.09	0.71
0.22	0.04	0.21	0.07	0.60

- Water not discharged on this day
- Note: The EPL discharge volume limit for EPL 43 and 50 is 4.32 megalitres per day. Compliance with this criteria was met during the reporting month.
- \* The maximum flow rate capacity for Lobs Hole STP/PWTP during the reporting month was 8.45 L/s
- ^ The maximum flow rate capacity for Tantangara STP/PWTP during the reporting month was 11.34 L/s
- Water not discharged on this day

EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring May 2025

Table 1: Surface Water Quality Data

River and Minor Watercourses

Date and Time	EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			90 - 110	-	-	50 - 350	100 - 350	6.5 - 8.0	-	2 - 25		
7/5/2025, 7:12 AM	EPL5	Farrangobilly River, upstream of the exploratory tunnel and construction pad	9.84	81	9.18	135	88	8.17	172	0.3	Clear sky. Average flow. Clear water. No recent rain.	These results are consistent with previous samples taken for this location.
7/5/2025, 7:49 AM	EPL6	Wallaces Creek, upstream of Farrangobilly River and Wallaces Creek confluence	8.14	80.5	9.49	130	84	8.12	228	1.1	Clear sky. Clear water. No recent rain. Lower than usual flow.	These results are consistent with our previous samples taken for this location.
7/5/2025, 7:11 AM	EPL8	Farrangobilly River, downstream of Lick Hole Gully	9.99	70.5	7.96	138	90	8.11	47	42.3	Clear sunny morning, no recent rainfall event. Water is clear, no odour. No sheen. No signs of algae.	Turbidity is elevated, however not uncommon within our data previously recorded. This could potentially affect the slightly lower DO recorded.
7/5/2025, 7:29 AM	EPL9	Farrangobilly River, downstream of the accommodation camp and upstream of Tallbingo Reservoir	9.3	65.9	7.33	141	92	8.01	119	7.1	Clear sunny morning, no recent rainfall. No visible algae, no sheen, no odour. Water is very clear.	These results are consistent with our previous samples taken. The DO results which are below WQO's.
7/5/2025, 7:28 AM	EPL12	Farrangobilly River, immediately downstream of portal pad	9.26	68.1	7.82	135	88	8.17	308	5.9	Clear sky. Clear water. No recent rain. Average flow.	These results are consistent with our previous samples taken for this location.
7/5/2025, 8:09 AM	EPL14	Farrangobilly River, downstream of road construction areas	8.54	73.8	8.62	138	89	8.11	234	5.8	Clear sky. Clear water. No recent rain. Average flow.	These results align with the decrease in temperatures, remaining consistent with data we have recorded in previous sample rounds.
7/5/2025, 8:26 AM	EPL15	Farrangobilly River, downstream of road construction areas	8.73	90.3	10.5	139	90	8.14	238	0.3	Clear sky. Clear water. No recent rain. Average flow.	These results are consistent with our previous samples taken for this location.
7/5/2025, 7:12 AM	EPL16	Farrangobilly River, downstream of road construction areas	8.87	63.2	7.32	142	92	8.08	142	6.2	Clear sunny morning, no recent rainfall. Clear water, no visible algae, no sheen, no odour.	These results are consistent with our previous samples taken for this location.
16/5/2025, 2:38 PM	EPL24	Farrangobilly River tributary (Matcourse 2), directly downstream of road	14.55	54.2	5.51	956.00	612	6.71	205	4.8	Clear sunny day. No recent rain events. Works continuing to expand F103 basin just upstream of sample location. Water is very clear, no odour and no sheen.	Low DO and elevated EC is commonly seen with data recorded from previous sample rounds, these numbers are consistent with these results.
21/5/2025, 8:48 AM	EPL26	Eucumbene River, downstream of Marica Road	4.43	82.6	10.7	29	19	8	217	9.01	Sunny cool day. Low flow and water level. Horse poo and hoof marks on stream bank. Low turb. confirmed with Hach.	The results are consistent with our previous samples taken for this location.
18/5/2025, 10:36 AM	EPL27	Eucumbene River, upstream of Marica Road	6.05	92.8	11.57	21	13	5.92	216	29.4	Windy cold day, low level water, slow flow, evidence of animal activity, no odour, clear water.	The low pH although has been recorded in our previous sample rounds, is less commonly seen. The other parameters are consistent with our previous sample rounds.
21/5/2025, 7:34 AM	EPL30	Kellys Plain Creek, downstream of accommodation camp and laydown areas	7.5	92.9	11.14	32	21	8.09	205	11.6	Clear sunny conditions, frost in the morning with limited rain over the previous week. Clear waterway with no signs of odour or other anomalies.	Slightly elevated pH is within trends of data recorded from previous samples taken.
21/5/2025, 7:39 AM	EPL31	Kellys Plain Creek, upstream of accommodation camp and laydown areas	7.59	84.4	10.09	21	14	7.78	244	8.1	Clear sunny conditions, frost in the morning with limited rain over the previous week. Clear waterway with no signs of odour or other anomalies.	These results are consistent with previous samples recorded for this location.
21/5/2025, 7:47 AM	EPL33	Murrumbidgee River, downstream of Tantangara reservoir outlet	9.59	87.1	7.64	21	13	7.59	264	18	Clear sunny conditions, frost in the morning with limited rain over the previous week. Green coloured waterway, looks to be algae with no signs of odour or other anomalies.	These results are consistent with results previously recorded for this location, low DO and EC is commonly recorded here and therefore isn't outside of results.
21/5/2025, 7:46 AM	EPL34	Nungah Creek, upstream of Tantangara Road	7.2	82.2	9.93	23	15	7.52	277	5.9	Clear sunny conditions, frost in the morning with limited rain over the previous week. Clear waterway with no signs of odour or other anomalies.	These results are consistent with results previously recorded for this location, low DO and EC is commonly recorded here and therefore isn't outside of results.
21/5/2025, 7:50 AM	EPL35	Nungah Creek, downstream of Tantangara Road	7.38	63.8	7.91	22.0	14	7.43	262	4.5	Clear sunny conditions, frost in the morning with limited rain over the previous week. Clear waterway with no signs of odour or other anomalies.	These results are consistent with results previously recorded for this location, low DO and EC is commonly recorded here and therefore isn't outside of results.
21/5/2025, 11:13 AM	EPL36	Camersons Creek, upstream of works in Rock Forest	8.58	99.8	11.66	47	30	6.83	298	23.5	Sunny day, a bit turbid water it can be attributed to the recent precipitation, no odour	These results are consistent with previous samples recorded for this location.
27/5/2025, 9:35 AM	EPL37	Camersons Creek, downstream of works in Rock Forest	6.77	101	12.33	40	39	7.28	305	15.6	Sunny day, clear water, the stream a bit more turbulent it can be attributed to the recent precipitation, no smell	These results are consistent with previous samples recorded for this location.
26/5/2025, 11:36 AM	EPL32	GF01 leachate basin	-	-	-	-	-	-	-	-	DRY	DRY
-	EPL33	GF01 surface water upstream east	-	-	-	-	-	-	-	-	DRY	This location is dry.
-	EPL34	GF01 surface water upstream west	-	-	-	-	-	-	-	-	DRY	This location is dry.
18/5/2025, 9:46 AM	EPL55	GF01 surface water downstream	-	-	-	-	-	-	-	-	DRY	This location is dry.
-	EPL67	Nungah Creek surface water downstream west from Tantangara emplacement area	-	-	-	-	-	-	-	-	DRY	Location is dry
-	EPL71	Surface water downstream of Marica emplacement	-	-	-	-	-	-	-	-	DRY	This location is dry.

EPL 21266 In Situ Water Quality Measurements

EPL Monthly Monitoring May 2025

3/5/2025, 11:53 AM	EPL84	FB Basin	18.2	125.6	11.62	969.00	620	9.18	61	1000	Clear sunny day, no recent rainfall events. Basin level very low, soon to be desludged and refilled. Water is very brown & turbid. Exceeding 1000NTU. Slight odour due to low water level.	Elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
24/5/2025, 11:51 AM	EPL85	MF07 Basin	12.17	50.4	5.4	730	467	8.97	133	1,000.00	Overcast day. Recent rain event. Water brown and turbid over 1000 NTU. Water has no odour or sheen. Minor inflow off road. Basin at 75%.	Low DO, elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
24/5/2025, 12:02 PM	EPL86	JH001 Basin	12.32	58.7	6.26	929.00	595	8.39	152	448	Overcast day. Recent rain event. Water slightly turbid. No odour or sheen. No current inflows.	Low DO, elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
12/5/2025, 10:29 AM	EPL88	Rock blanket diversion monitoring under GF01 liner	-	-	-	-	-	-	-	-	DRY	Location is dry.
2/5/2025, 11:18 AM	EPL89	Marica Leachate Basin- Turkey's Nest	10.47	66.6	6.76	354	230	10.62	-13	63.6	Clear sunny day. No odor. Milky colour. Basin half full.	Low DO, elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
21/5/2025, 2:51 PM	EPL100	Marica Lower Leachate Basin USS Shaft	9.72	60.9	6.9	541	246	8.62	132	991	Rainy day. High turb. Brown water. No odor. Minor oily sheen visible.	Low DO, elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
2/5/2025, 11:28 AM	EPL101	Marica Leachate Basin Spill Pad	8.82	92.5	10.72	633	406	9.06	84	89.7	Sunny clear day. Milky coloured water. Algae. Fuel spill into basin 3 weeks ago. Basin water level very low.	Elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
3/5/2025, 8:15 AM	EPL106	Ravine Bay Leachate basin 1	11.81	90.1	9.71	1,480.00	938.00	8.92	151	192	Cold clear morning. No recent rain events. Basin level is lower than normal. Water is clear with suspended solids. No odour. No sheen.	Elevated EC and pH have been recorded in previous sample rounds in this location, therefore these results are not outside of range recorded previously.
16/5/2025, 10:50 AM	EPL110	Upstream monitoring of Ravine Bay emplacement area	-	-	-	-	-	-	-	-	DRY	Location dry.
-	EPL118	Ravine Bay Leachate basin 2	-	-	-	-	-	-	-	-	DRY	Location dry.
-	EPL120	Ravine Bay Leachate basin 4	-	-	-	-	-	-	-	-	DRY	Location dry.
28/5/2025, 9:04 AM	EPL122	GF03 Drainage Line (Formerly EPL 556)	11.64	87.5	9.49	658	421	8.64	244	409	Recent heavy rain. More flow than usual. Milky colour. High turb.	The consistently low levels found when sampling this location can impact sample results, though we have consistently seen these results in previous sample rounds recorded.

Table 2: Reservoir Water Quality Data

Tallbingo and Tantangara Reservoirs

Date and Time	EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
			90 - 130	-	-	50 - 30	100 - 30	6.5 - 8.5	-	1 - 10		
4/5/2025, 8:46 AM	EPL10	Tallbingo Reservoir, downstream of road works and upstream of water intake point	14.96	58.7	6.02	54	35	7.18	205	4.1	Clear sunny morning, no recent rainfall. Bit of dust across surface. No odour, water is clear	Results including the lower DO and EC results lie within data records for previous sample rounds.
4/5/2025, 8:32 AM	EPL11	Tallbingo Reservoir, downstream of outlet	14.97	57	5.75	50	32	7.47	206	5.2	Clear sunny morning, no recent rainfall. Less algae than previous month, no odour, no sheen.	Results including the lower DO and EC results lie within data records for previous sample rounds.
25/5/2025, 9:14 AM	EPL28	Tantangara Reservoir, upstream of works in the mouth of the Murrumbidgee River	8.37	104.7	12.29	31	20	7.26	318	13.9	Sunny day. Heavy recent rainfall. Greenish grey water colour. No odour. Hach meter turb.	Results including the lower DO and EC results lie within data records for previous sample rounds.
21/5/2025, 9:43 AM	EPL29	Tantangara Reservoir, downstream of works area and upstream of lower Murrumbidgee River	9	104.1	12.03	30	20	7.19	349	17.3	Heavy recent rainfall. No odor. Greenish grey water colour. Less algae than previous month. Hach meter turb.	These results are consistent with previous samples recorded for this location.
25/5/2025, 9:36 AM	EPL32	Tantangara Reservoir, Tantangara Intake. Downstream of construction works	8.88	76.1	8.85	30	20	7.22	353	17.7	Heavy recent rain. Green grey water colour. No odor. Hach meter turb.	These results are consistent with previous samples recorded for this location.

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17/5/2025, 12:40 PM	EPL38	Tantangara Reservoir, variable location dependent on tide and reservoir levels. Between the emplacement area and the ancillary facilities for emplacement activities	13.16	68.6	7.21	23	15	7.63	240	40.9	Clearer water, windy breeze, sunny day, cool temp. No recent rain. No odors. Green colour - surface of water is clear.	The low DO, EC, and higher turbidity seen within this round is consistent with the water levels of the reservoir at the time of samples taken. These results still remain within range from previously recorded samples taken.
17/5/2025, 9:04 AM	EPL39	Confluence of Munger Creek and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of Tantangara construction works	9.63	68.6	7.81	27	18	8.76	156	22.6	Low level water, slow flow, cloudy foggy morning. No sun. Some bubbles on surface. Evidence of duck activity in the stream.	Low DO and EC could be attributed to the algae bloom recorded near sample location, but isn't outside of ranges we've recorded in previous samples taken in this location.
4/5/2025, 11:56 AM	EPL40	Confluence of the upper Murrumbidgee River and Tantangara Reservoir, variable location dependent on tide and reservoir levels. Upstream of works	10.9	96.7	10.7	40.4	36	8.33	138.4	4.38	Taken from shoreline, reservoir too low for boat access. Clear flowing water. No odour or sheen.	These results are consistent with previous samples recorded for this location.
26/5/2025, 10:02 AM	EPL 46	Tantangara Reservoir, diffuser outlet discharging into Tantangara Reservoir from Tantangara STP/PWTP	8.8	84.3	9.8	34	22	7.1	367	0.8	Heavy rain in recent days. Greenish grey water colour. Less algae than previous months.	These results are consistent with previous samples recorded for this location.
26/5/2025, 9:49 AM	EPL 51	Tantangara Reservoir, downstream of Tantangara STP/PWTP diffuser outlet	8.84	85.6	9.91	30	20	7.18	349	14.3	Heavy recent rain. Green grey water colour. Less algae than previous months. Much meter turb.	These results are consistent with previous samples recorded for this location.
4/5/2025, 8:01 AM	EPL107	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River	13.03	63.9	6.44	28	18	7.47	197	10.1	Clear sunny morning, no recent rainfall. Less algae than previous month. No odour, no sheen	These results are consistent with previous samples recorded for this location.
4/5/2025, 7:49 AM	EPL108	Monitoring of Ravine Bay emplacement area (center of PSE) within Yarrangobilly River	13.27	75.3	7.55	24	16	7.5	192	18	Clear sunny morning. No recent rainfall. Less algae than previous month, no odour, no sheen.	These results are consistent with previous samples recorded for this location.
4/5/2025, 7:42 AM	EPL109	Upstream monitoring of Ravine Bay emplacement area within Yarrangobilly River	14.6	84.4	8.62	25	16	7.63	186	21.4	Sunny day, clear morning. Less algae than previous months. Clear water. No odour, no sheen, no recent rain	These results are consistent with previous samples recorded for this location.

Table 3. Treated Water Quality Data

Date and Time	EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
25/5/2025, 9:21 AM	EPL41	Lake Hole STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Talbingo Reservoir.	14.59	68.7	6.99	16	10	8.01	147	18.9	Wet gloves, isochlor wipers, correct methodology with QC sampling. QAL and 2 taken from here too. Water is very clear, no odour. Water was purged for 2 minutes before sampling.	These results are consistent with previous samples recorded for this location.

Table 4. Treated Water Quality Data

Date and Time	EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
26/5/2025, 9:26 AM	EPL50	Tantangara STP/PWTP Final Effluent Quality Monitoring Point. Downstream of final treatment, prior to discharge to Tantangara Reservoir	7.3	-	-	46.18	-	7.58	-	0.39	Decontaminated team completed sampling at 1.30pm on 26/05/2025. In situ readings are from their fixed unit, not in situ or TDS. No anomalies noted.	These results are consistent with previous samples recorded for this location.

Table 5. Groundwater Quality Data

Date and Time	EPL Site ID	Location Description	Water Quality Objectives (see note 1)								Field Comments	Context
			Temp (°C)	DO (%)	DO (mg/L)	EC (µS/cm)	TDS (mg/L)	pH	Redox (mV)	Turbidity (NTU)		
4/5/2025, 9:13 PM	EPL1	Wallace Creek Bridge	16.56	84.9	8.26	956	586	6.18	-128	188	Overcast. Silt over well cap. No recent rain. No odour. SWL 2.99. Slightly turbid. Faint metallic smell. Metallic sediment present in hydrateless. Stock pile present on uphill pad. Basin drilling recently completed.	Elevated EC and pH are within the previously recorded range for this location. Presence of sediment and increased turbidity suggests bore is due for development.
4/5/2025, 2:14 PM	EPL2	Wallace Creek Bridge	15.75	80.4	8.06	480	319	8.17	7	234	Overcast day. No recent rain. No odour. 3.3m rad. Sediment in bottom. Slightly turbid.	Elevated EC and pH are within historical range for this location. Presence of sediment and increased turbidity suggests bore is due for development.

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4/5/2025, 9:13 PM	EPL4	Partial Access	-	-	-	-	-	-	-	-	Bore cap underside. Uncontaminated sample not possible.	-
4/5/2025, 2:53 PM	EPL25	Partial Access	15.51	89.2	8.88	420	273	8.16	-43	60.3	Overcast day. No recent rain. SWL 3.7. Water over ground at monument base. Slightly turbid. Metallic sediment in hydrateless. Slight metallic smell	Elevated EC is within historical range. Increased pH and turbidity potentially due to surface water ingress.
1/5/2025, 7:23 AM	EPL16	GP01 Upstream east groundwater well	12.62	25.7	2.73	234	152	7.9	102	22	Clear day. No recent rain. SWL 10.72m. Concrete cracked around cap. Low turb. No odour. Draining of PSE occurring down gradient.	Elevated EC and pH are within historical range. Fluctuations in these values can potentially be attributed to surface water ingress due to degradation of plinth. Due to the final design of the PSE, this site may no longer be representative of upstream conditions.
18/5/2025, 9:11 AM	EPL17	GP01 upstream west groundwater well	12.72	22.8	2.42	226	147	8.69	96	85.7	No odors, no colour, clear water, no prev rainfall, no works going on today.	Elevated EC and pH are within the previously recorded range. Fluctuations in these values can potentially be attributed to surface water ingress due to degradation of plinth. Due to the final design of the PSE, this site may no longer be representative of upstream conditions.
18/5/2025, 9:48 AM	EPL18	GP01 Downstream Groundwater well	13.39	25.2	2.51	936	599	5.97	235	62.3	Water was warm, clear, odorless, no rain prev, no works current at time of sample	Incursions in pH and EC are within the previously recorded range. Site has been reported as impacted by GP01.
17/5/2025, 9:23 AM	EPL68	Leachate detection B1 downstream East	11.68	56	6.08	15	9	6.4	274	18.9	Clear water, no odors, cloudy day, no prev rainfall	Results are consistent with the previously recorded range.
17/5/2025, 9:35 AM	EPL69	Tantangara groundwater upstream East	11.28	54.2	5.94	30	19	6.56	292	36.5	No odors, clear water with slight sediment that is orange in colour. No prev rainfall, foggy morning.	Results are consistent with the previously recorded range.
24/5/2025, 12:33 PM	EPL70	Tantangara groundwater upstream	10.84	13.4	5.93	134	87	6.5	370	40.3	Rainy day, rain overnight, same sediment in the bottom of the sleeve, no odour?	Results are consistent with previously recorded data. Location upstream of any works.
27/5/2025, 9:04 AM	EPL 72	Marica groundwater upstream	8.84	52.8	6.13	18	38	6.52	-2	54.3	SWL 37.0m. Sunny cool day. No odour. Small amount of sediment at bottom of hydrateless.	Results are consistent with historical range. Location upstream of any works.
5/5/2025, 2:18 PM	EPL73	Marica groundwater downstream	-	-	-	-	-	-	-	-	-	This site has been decommissioned.
24/5/2025, 12:42 PM	EPL80	JHG groundwater upstream	15.2	19.5	1.95	824	591	6.73	-17	229	Overcast day. Recent rain event. SWL unable to measure due to dipper malfunction. Water clear with sediment settling at bottom of hydrateless and visible suspended solids. No odour.	Location upstream of works, representative of background conditions. Elevated EC is within the previously recorded range.
7/5/2025, 6:58 AM	EPL81	JHG groundwater downstream	13.35	18.2	1.89	851	545	6.87	2	1000	SWL 4.17m. Sunny clear morning. No recent rainfall. No odour. Water is very turbid, exceeding 1000 NTU. Usually sample taken with hydro cleaner however bore pump is installed but not working, sample collect using water hose and foot valve hence high NTU.	High NTU recorded due to sampling methodology. High EC consistent with upstream site.
6/5/2025, 11:30 AM	EPL82	MY groundwater upstream	17.44	13.7	1.31	1240	1500	6.74	-2	47.1	SWL 9.07m. Clear sunny day, no recent rainfall events. Clear water, no odour. High EC as per previous samples.	Location upstream of works, representative of background conditions. Elevated EC is within the previously recorded range.
05/05/2025, 2:29 PM	EPL83	MY groundwater downstream	17.41	6.34	1.63	529	339	6.34	39	19.3	Sunny, partly cloudy, no recent rainfall. No odour, clear water.	Low pH and elevated EC within previously recorded data range and consistent with upstream locations.
24/5/2025, 10:57 AM	EPL87	MY groundwater downstream	15.63	18.8	1.87	827	529	6.4	193	92.8	SWL. Unable to measure due to bore pump. Overcast day. Recent rain event. Water clear. No odour. Water extracted using bore pump.	Low pH and elevated EC within previously recorded data range and consistent with upstream locations.
5/5/2025, 2:18 PM	EPL88	MY groundwater downstream	17.05	25.9	2.5	756	458	6.9	-76	2.2	SWL 3.43m. Cloudy day, no recent rainfall. Sulphur odour/clear water.	Elevated EC within previously recorded data range and consistent with upstream site.
5/5/2025, 10:37 AM	EPL89	JHG groundwater downstream	14.94	24.6	2.48	320	208	6.91	163	112	SWL 3.3m. Clear sunny day. No recent rain events. Water is very clear, slightly viscous. No odour.	These results are consistent with previous sampling rounds.
4/5/2025, 3:40 PM	EPL 90	GP01 groundwater downstream	13.26	90	9.02	66	43	8.18	169	1000	Overcast day. Bore pump not operational. Slightly turbid. No odour.	These results are consistent with previous sampling rounds. High turbidity due to temporary sampling methodology (foot valve and hose).
18/5/2025, 8:00 AM	EPL 91	GP01 groundwater downstream	14.22	23.9	2.45	182	125	6.87	2	37.4	Sulphuric smell, no color/sediment, no prev rainfall, cool morning. Bore hole not fully encased see photos	These results are consistent with previous sampling rounds.
18/5/2025, 8:39 AM	EPL 92	GP01 groundwater downstream	10.18	77.4	8.69	497	323	8.13	30	161	Purged the pump for a minute, brown sediment laden water was coming out then it cleared up. Still orange in color, not as thick. No odors, no prev rainfall	These results are consistent with previous sampling rounds. Elevated turbidity to be managed through upcoming bore development program.
18/5/2025, 8:51 AM	EPL 93	GP01 groundwater downstream	13.09	19.6	2.06	208	135	7.1	150	915	Heavy orange sediment was purged before we collected sample. Still came out orange colour, but clearer than before. No odour. No prev rainfall	These results are consistent with previous sampling rounds. The high turbidity could be attributed to sampling methodology (foot valve and hose).
18/5/2025, 8:59 AM	EPL 94	GP01 groundwater downstream	13.11	33.4	3.51	150	97	6.85	0.1	119	ORP/UV = -10, CLEAR WATER LITTLE COLOUR. No prev rain. No odors.	These results are consistent with previous sampling rounds.
18/5/2025, 9:56 AM	EPL 95	GP01 groundwater downstream	15.3	101.3	10.11	1,001.00	644	6.09	238	24.3	No odor, no prev rainfall, no works current at time of sample, no colours	These results are consistent with previous sampling rounds.
18/5/2025, 10:06 AM	EPL 96	GP01 groundwater downstream	14.52	30.3	3.08	811	519	7.32	197	915	Orange colour, smell like landfill. Open at the top of bore, no construction works happening at time of sample	These results are consistent with previous sampling rounds. The high turbidity could be attributed to sampling methodology (foot valve and hose).
18/5/2025, 10:36 AM	EPL 97	GP01 groundwater downstream	15.22	54.8	5.49	424	276	6.89	213	23.7	No odors, no prev rainfall, clear water, no sediment, no need to purge.	These results are consistent with previous sampling rounds.
-	EPL102	Groundwater monitoring associated with the Marica emplacement area on Marica Trail	-	-	-	-	-	-	-	-	EPL Point Decommissioned	This location has been decommissioned.
17/5/2025, 10:35 AM	EPL103	Upstream groundwater monitoring west of the Tantangara emplacement area	11.44	71.7	7.82	34	22	6.21	285	33.3	No odor, no sediment, clear water. No prev rainfall.	The results, including the low pH is consistent with samples previously taken

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17/5/2025, 10:00 AM	EPL104	Downslope groundwater monitoring east of the Tartangara emplacement area	11.66	44.9	4.87	41	26	6.27	294	23.7	No prev rainfall no odor, clear hydra sieve - no sediment. No works happening today.	The results, including the low pH is consistent with samples previously taken
24/5/2025, 11:16 AM	EPL105	Downslope groundwater monitoring east of the Tartangara emplacement area	11.1	95.9	10.55	131	85	6.41	386	177	Rainy day, rain overnight, no smells, water taken from the pump	The results, including the low pH is consistent with samples previously taken
3/5/2025, 9:34 AM	EPL113	Upstream east monitoring of Ravine Bay emplacement area	12.26	22.5	2.41	129	84	6.13	120	956	SWL: 2.64m Clear cold morning. Continual works ongoing at PSE. No recent rain events. Water is slightly turbid, a bit of a milky consistency, no odour.	The results, including the low pH is consistent with samples previously taken
3/5/2025, 9:07 AM	EPL114	Upstream west monitoring of Ravine Bay emplacement area	12.09	26.7	2.87	341	221	7.27	-28	34.8	SWL: 31.95m Clear cold morning. No recent rain events. Water is clear, no odour. Continual works ongoing at PSE	These results are consistent with previous sampling rounds.
3/5/2025, 9:56 AM	EPL115	Downstream east monitoring of Ravine Bay emplacement area	12.55	18.7	1.99	336	206	7.4	61	176	SWL: 11.2m Cold clear morning. No recent rain events. Ground disturbance nearby with a pigger in the basin. Water is clear, no odour.	These results are consistent with previous sampling rounds.
3/5/2025, 7:50 AM	EPL116	Downstream west monitoring of Ravine Bay emplacement area	12.8	61	6.45	167	108	7.27	188	1,000	SWL: 8.33m. Very cold, clear morning. Frost on the ground. Water is brown turbid exceeding 1000 NTU, no odour. Recent ground disturbance nearby at uphill. Access created for multi distribution	These results are consistent with previous sampling rounds. High turbidity potentially due to sampling methodology (foot valve and hose)
3/5/2025, 8:50 AM	EPL117	Downstream monitoring of Ravine Bay emplacement area	12.34	17.6	1.88	122	79	6.72	-25	167	SWL: 15.90m. Cold clear morning. No recent rain events. Water is slightly cloudy, milky viscous consistency, clogging the large filters up, no odour. Ongoing works at PSE	These results are consistent with previous sampling rounds.
10/5/2025, 8:41 AM	EPL123	GW Upstream W Rockforest	11.52	48.3	5.36	36	23	6.59	276	1000	SWL: 7.88m, sunny day, turbid water, sediment in the bottom of the sleeve	These results are consistent with previous sampling rounds. High turbidity potentially due to sampling methodology (foot valve and hose)
21/5/2025, 8:01 AM	EPL124	GW upstream (NE) Rockforest	12.18	63	6.76	22	14	6.82	328	283	Clear sunny conditions, frost in the morning with limited rain over the previous week. Minor/moderate turbid sleeve, with no signs of odour or other anomalies.	The low EC and pH is within range for previously recorded data for this location.
27/5/2025, 10:59 AM	EPL129	GW Downstream (S) Rockforest	11.44	92.4	10.09	109	71	6.34	348	902	Sunny day and cold, turbid water and sediment placed at the bottom of the sleeve	These results are consistent with previous sampling rounds.
10/5/2025, 9:54 AM	EPL126	GW Downstream (SE) Rockforest	10.42	17.6	1.07	307	200	7.57	214	1000	SWL: 1.88m Milky colour sediment No odor No prev rainfall	These results are consistent with previous sampling rounds. High turbidity potentially due to hose requiring development.
27/5/2025, 9:21 AM	EPL127	GW Downstream Rockforest	11.34	38.1	4.16	118	77	6.8	340	39.8	Sunny day, very cold, no odors, clear water	These results are consistent with previous sampling rounds.

Note 1: Water Quality Objective values for the Tartangara River and Minor Watercourses refer to the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000).

Note 2: Water Quality Objective values for Tambora Reservoir are the default trigger values for physical and chemical stressors in south-east Australia (freshwater lakes and reservoirs) that are reported in Tables 3.3.2 and 3.3.3 of ANZECC/ ARMCANZ (2000).

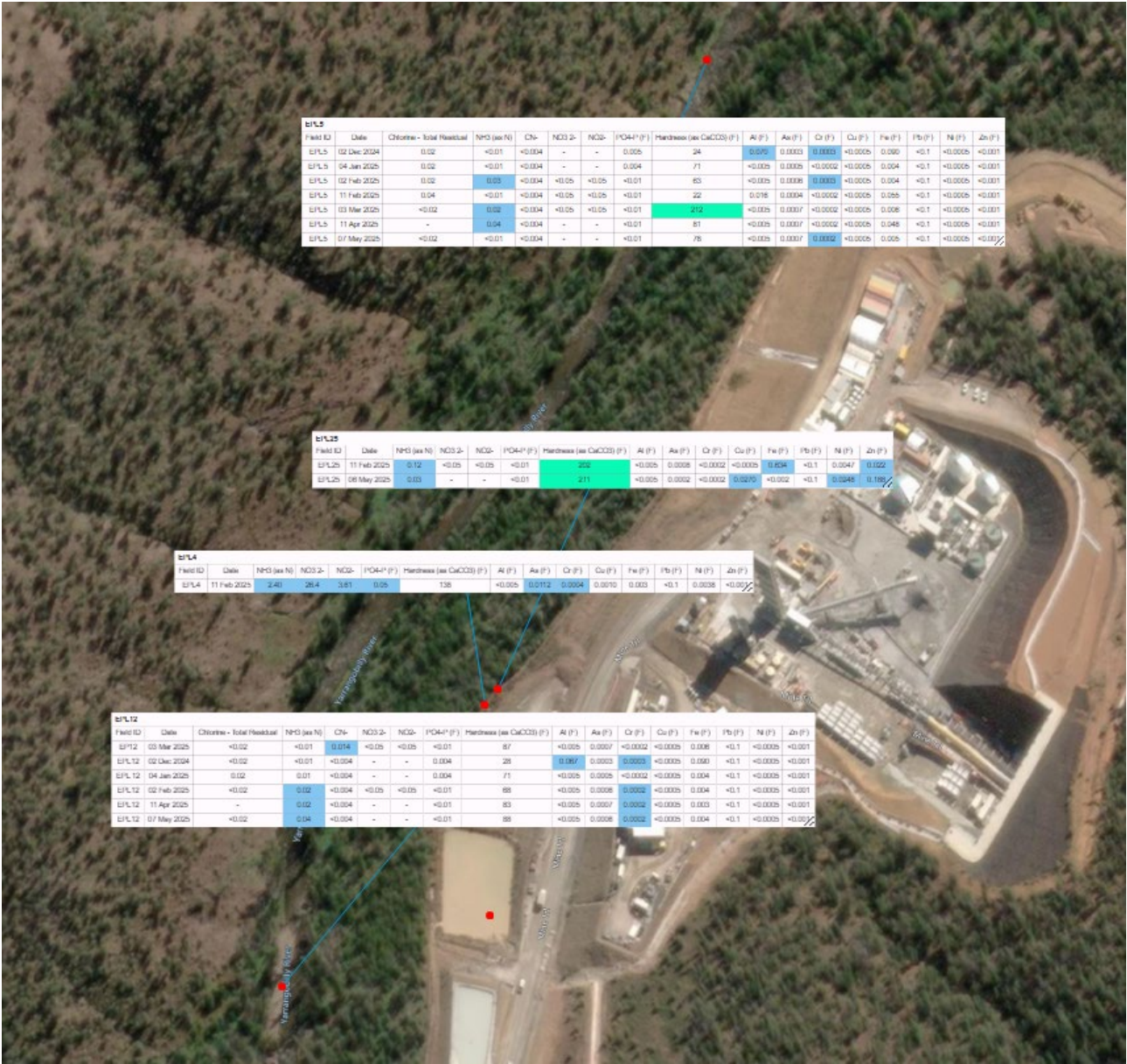
Note 3: Water Quality Objective values Treated Water reference the predicted values for physical and chemical stressors from the treatment plant as presented in the Main Works EIS.

Note 4: Water Quality Objective values for groundwater reference the default trigger values for physical and chemical stressors in south-east Australia (upland rivers) for pH and electrical conductivity.



APPENDIX C – EXCEEDANCE MAPS

EPL5, EPL25, EPL4, EPL12

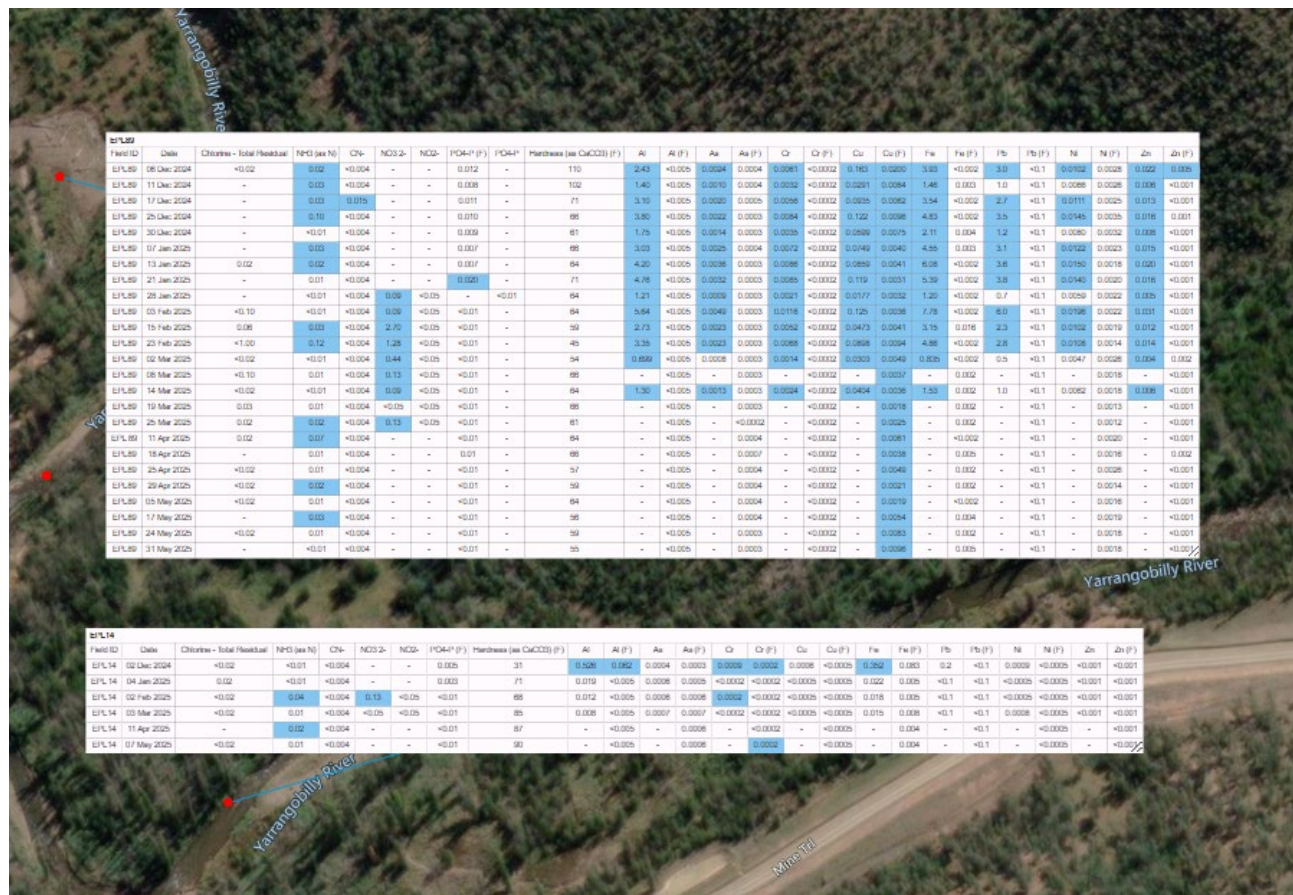


EPL1, EPL2, EPL6



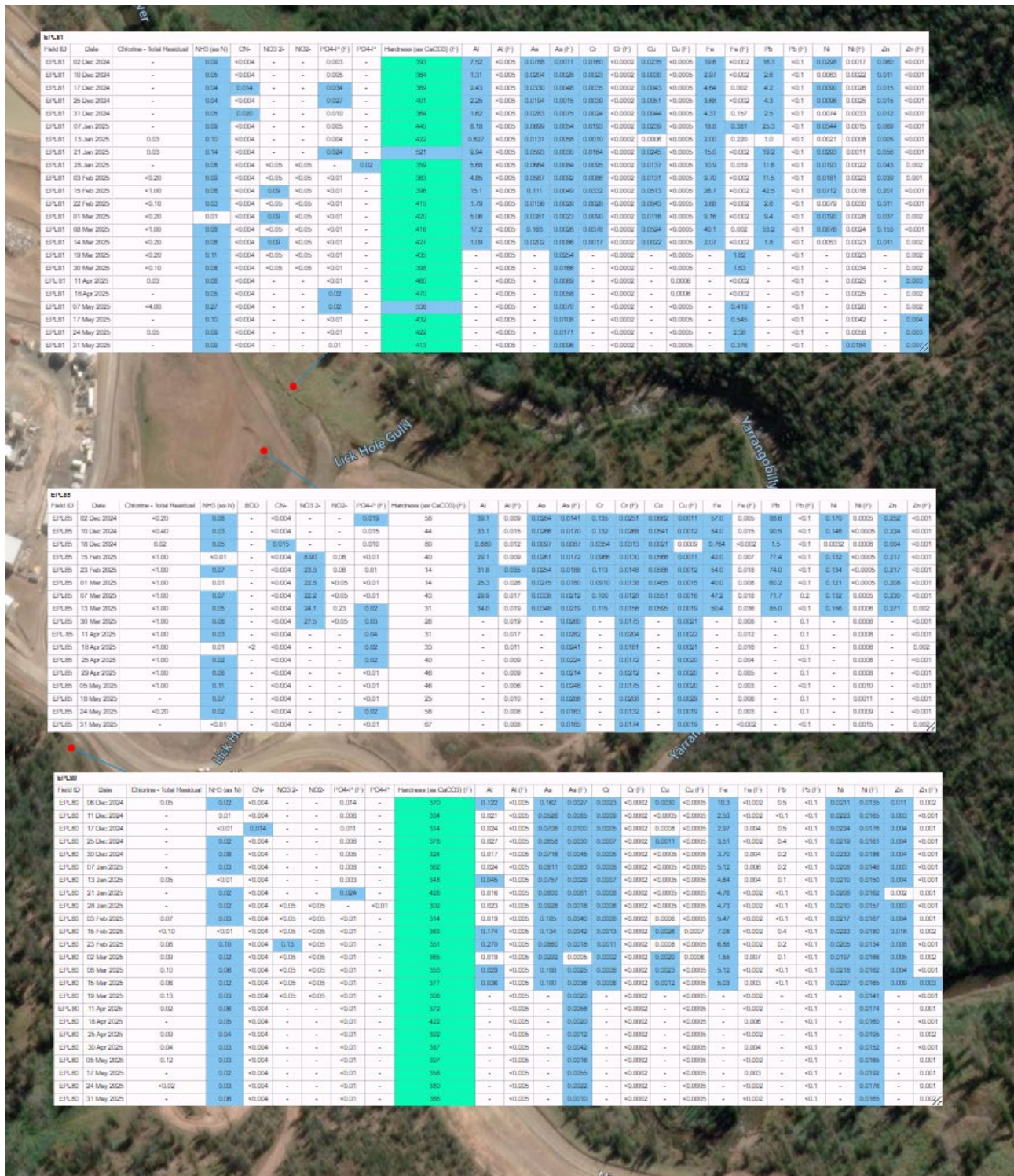


EPL14, EPL89





EPL80, EPL81, EPL85



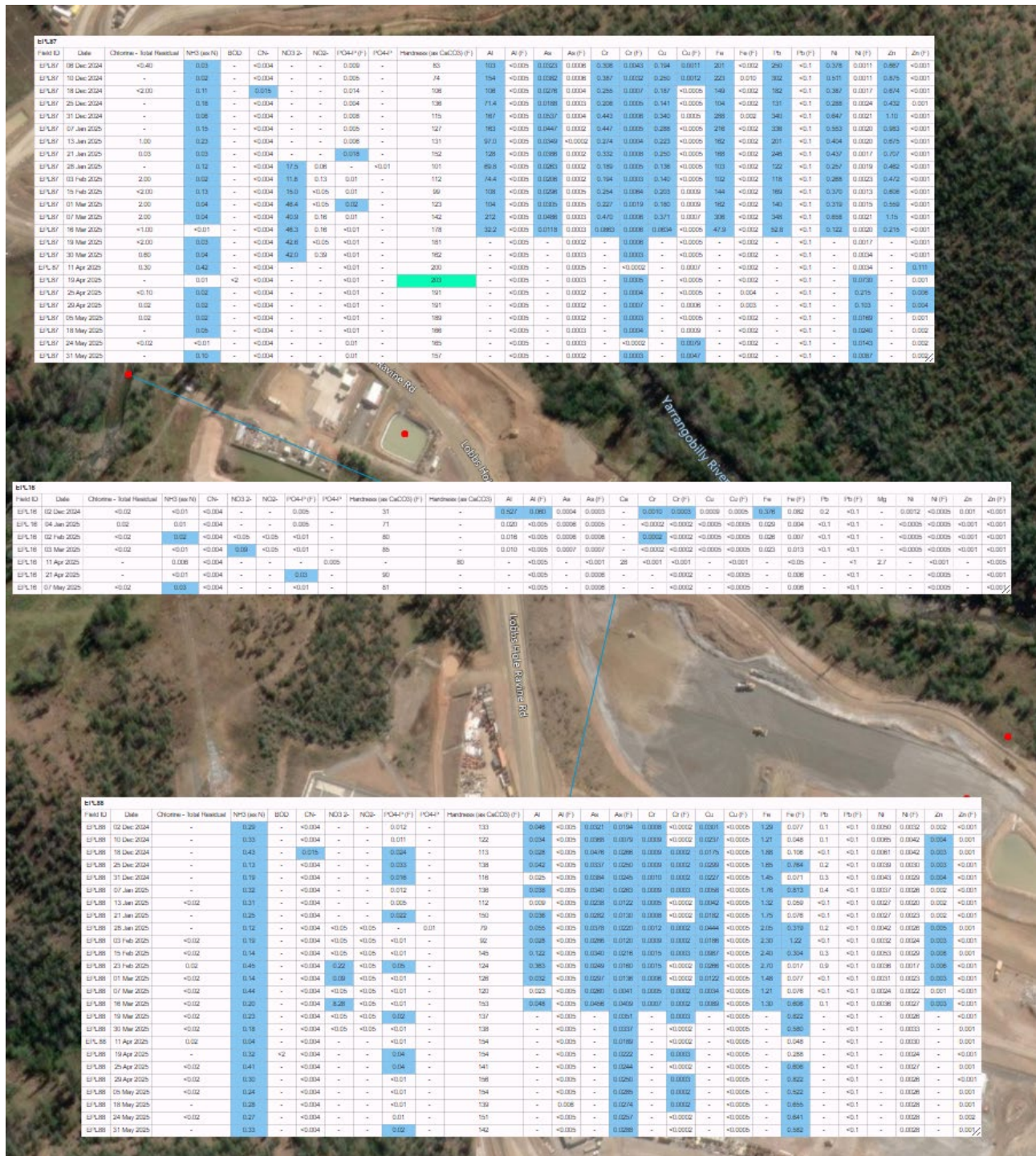


EPL8, EPL82, EPL84





EPL16, EPL87, EPL88,



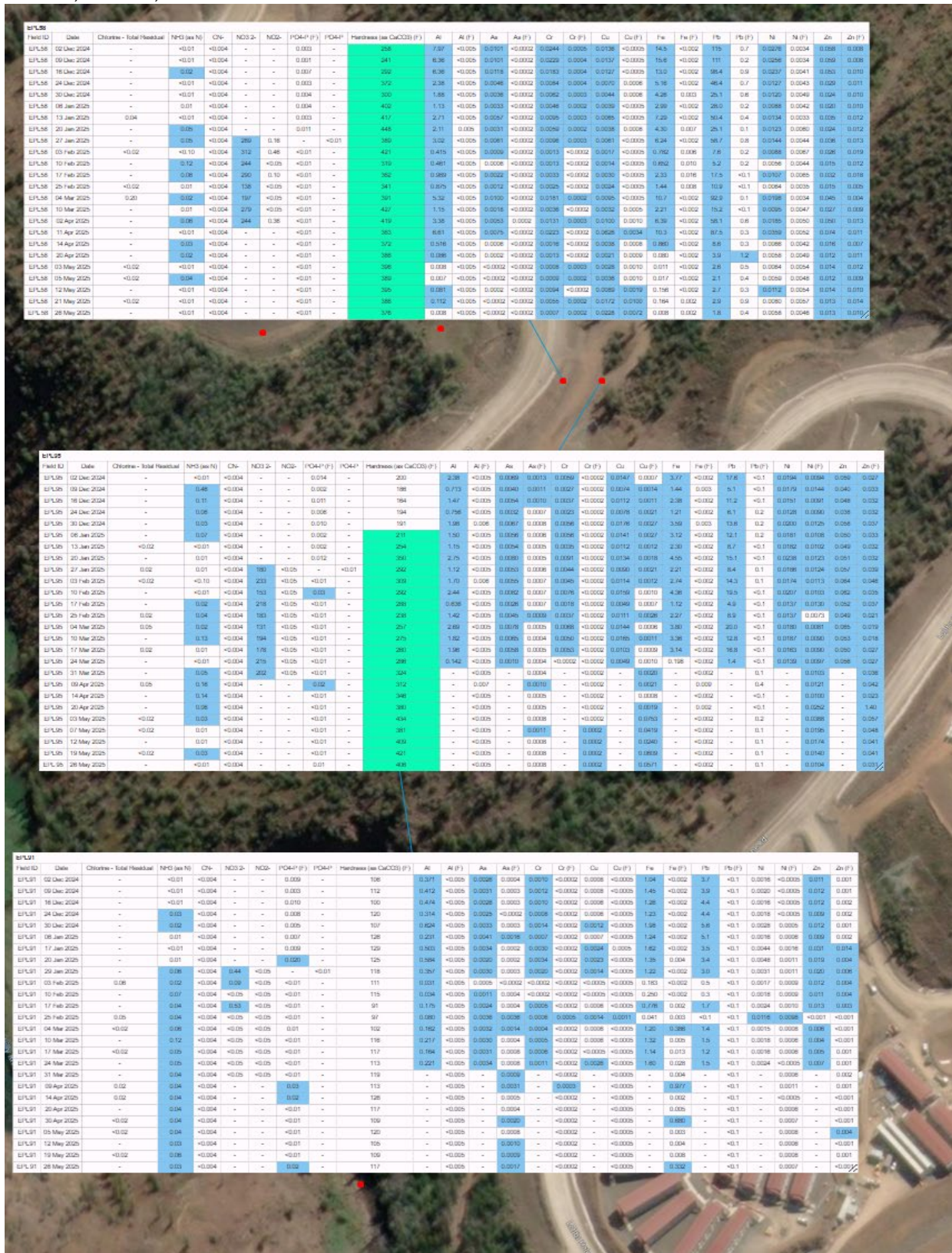


EPL9, EPL24, EPL97





EPL58, EPL91, EPL98





EPL52, EPL96, EPL55, EPL90

Field ID	Date	Chlorine - Total Residual	NH3 (as N)	CN-	NO3 2-	NO2-	PO4-P (P)	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)	
EPL52	02 Dec 2024	<0.02	<0.01	<0.004	-	-	0.004	-	171	0.009	0.010	0.0125	0.0126	0.0050	0.0034	0.0015	<0.0005	0.044	<0.002	0.8	<0.1	0.0023	<0.0005	0.004	<0.001	
EPL52	16 Dec 2024	<0.02	<0.01	<0.016	-	-	0.004	-	345	0.047	<0.005	0.0024	0.0023	0.0014	0.0012	0.0006	<0.0005	0.096	<0.002	0.2	<0.1	0.0023	0.0021	0.062	0.056	
EPL52	24 Dec 2024	0.02	0.02	<0.004	-	-	0.002	-	365	0.089	<0.005	0.0030	0.0026	0.0015	0.0013	0.0006	<0.0005	0.096	<0.002	0.2	<0.1	0.0012	0.0006	0.012	0.003	
EPL52	30 Dec 2024	<0.02	0.02	<0.004	-	-	0.002	-	247	0.011	0.007	0.0042	0.0041	0.0016	0.0013	0.0010	<0.0005	0.084	<0.002	0.2	<0.1	0.0009	<0.0005	0.005	<0.001	
EPL52	06 Jan 2025	0.02	0.05	<0.004	-	-	0.003	-	366	0.165	<0.005	0.0033	0.0032	0.0021	0.0015	0.0012	<0.0005	0.275	<0.002	0.3	<0.1	0.0013	<0.0005	0.003	<0.001	
EPL52	13 Jan 2025	0.02	0.02	<0.004	-	-	0.002	-	356	0.082	0.013	0.0061	0.0056	0.0016	0.0015	0.0007	0.0006	0.051	<0.002	<0.1	<0.1	<0.0005	<0.0005	0.003	0.001	
EPL52	20 Jan 2025	<0.02	0.06	<0.004	-	-	0.012	-	431	0.081	0.006	0.0073	0.0076	0.0020	0.0016	0.0009	<0.0005	0.099	<0.002	<0.1	<0.1	0.0006	<0.0005	0.001	<0.001	
EPL52	27 Jan 2025	<0.02	0.08	<0.004	2.02	2.20	-	<0.01	347	0.038	0.005	0.0083	0.0079	0.0017	0.0016	0.0012	0.0006	0.036	<0.002	0.1	<0.1	0.0006	<0.0005	0.004	<0.001	
EPL52	03 Feb 2025	<0.02	0.05	<0.004	1.06	3.12	<0.01	-	316	0.013	<0.005	0.0085	0.0088	0.0015	0.0014	0.0006	0.0006	0.014	<0.002	<0.1	<0.1	<0.0005	<0.0005	<0.001	<0.001	
EPL52	10 Feb 2025	<0.02	0.05	<0.004	84.5	2.00	<0.01	-	264	0.241	0.027	0.0134	0.0119	0.0014	0.0012	0.0007	<0.0005	0.097	<0.002	0.2	<0.1	0.0006	<0.0005	<0.001	<0.001	
EPL52	17 Feb 2025	<0.02	0.03	<0.004	84.1	1.31	<0.01	-	236	0.123	0.010	0.0086	0.0083	0.0013	0.0010	0.0006	<0.0005	0.091	<0.002	0.1	<0.1	0.0012	0.0006	0.007	0.002	
EPL52	25 Feb 2025	<0.02	0.26	<0.004	193	1.84	<0.01	-	340	0.081	<0.005	0.0080	0.0057	0.0010	0.0006	0.0006	<0.0005	0.081	<0.002	<0.1	<0.1	0.0006	0.0005	0.001	<0.001	
EPL52	04 Mar 2025	<0.02	0.39	<0.004	186	2.20	<0.01	-	350	0.164	<0.005	0.0086	<0.0002	0.0015	0.0002	0.0006	<0.0005	0.132	<0.002	0.1	0.1	0.0009	<0.0005	0.002	<0.001	
EPL52	10 Mar 2025	-	0.75	<0.004	190	3.02	<0.01	-	364	0.116	<0.005	0.0086	0.0057	0.0014	0.0010	0.0006	0.0005	0.142	0.002	<0.1	<0.1	0.0006	<0.0005	0.003	<0.001	
EPL52	17 Mar 2025	<0.02	0.47	<0.004	134	2.40	<0.01	-	352	0.302	<0.005	0.0048	0.0045	0.0016	0.0006	0.0006	<0.0005	0.285	<0.002	0.2	<0.1	0.0011	<0.0005	0.002	<0.001	
EPL52	24 Mar 2025	-	0.08	<0.004	136	1.84	<0.01	-	356	0.149	0.006	0.0040	0.0030	0.0006	0.0007	0.0010	<0.0005	0.136	<0.002	0.2	<0.1	0.0011	<0.0005	0.004	<0.001	
EPL52	31 Mar 2025	-	0.01	<0.004	122	1.44	<0.01	-	390	0.459	0.018	0.0055	0.0051	0.0023	0.0017	0.0012	<0.0005	0.410	<0.002	0.4	<0.1	0.0014	<0.0005	0.003	<0.001	
EPL52	09 Apr 2025	0.02	0.03	<0.004	-	-	<0.01	-	386	1.14	0.031	0.0047	0.0044	0.0021	0.0023	0.0022	0.0006	1.41	0.003	1.7	<0.1	0.0021	0.0006	0.008	<0.001	
EPL52 Incident	09 Dec 2024	<0.02	<0.01	<0.004	-	-	0.004	-	252	-	0.009	-	0.0095	-	0.0036	-	<0.0005	-	0.002	-	<0.1	-	0.0006	-	<0.001	-

Field ID	Date	Chlorine - Total Residual	NH3 (as N)	CN-	NO3 2-	NO2-	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)	
EPL96	02 Dec 2024	-	<0.01	<0.004	-	-	0.006	536	5.62	<0.005	0.0072	0.0064	0.0186	0.0016	0.0149	0.0010	10.8	<0.002	67.5	<0.1	0.0207	0.0016	0.060	0.002	
EPL96	09 Dec 2024	-	<0.01	<0.004	-	-	0.007	712	19.0	<0.005	0.0136	0.0096	0.0604	0.0016	0.0445	0.0007	34.9	0.002	225	<0.1	0.0475	0.0006	0.261	<0.001	
EPL96	16 Dec 2024	-	<0.01	<0.004	-	-	0.012	757	14.2	<0.005	0.0156	0.0097	0.0355	0.0014	0.0345	0.0010	25.4	<0.002	196	<0.1	0.0686	0.0015	0.194	0.001	
EPL96	24 Dec 2024	-	0.03	<0.004	-	-	0.011	753	5.19	<0.005	0.0071	0.0064	0.0156	0.0006	0.0161	0.0007	10.2	<0.002	73.4	<0.1	0.0327	0.0016	0.076	0.001	
EPL96	30 Dec 2024	-	<0.01	<0.004	-	-	0.015	520	26.0	<0.005	0.0096	0.0064	0.0725	0.0005	0.0709	0.0006	51.1	0.003	353	<0.1	0.1161	0.0026	0.352	0.002	
EPL96	06 Jan 2025	-	<0.01	<0.004	-	-	0.004	511	1.86	<0.005	0.0025	<0.0002	0.0083	0.0002	0.0056	0.0006	4.56	<0.002	26.2	<0.1	0.0136	0.0024	0.033	0.002	
EPL96	03 Feb 2025	<0.20	<0.01	<0.004	22.3	0.23	<0.01	85	8.86	<0.005	0.0057	<0.0002	0.0186	<0.0002	0.0158	<0.0005	11.7	<0.002	60.8	<0.1	0.0410	0.0019	0.102	0.002	
EPL96	04 Mar 2025	4.00	0.03	<0.004	240	<0.05	<0.01	569	50.5	<0.005	0.0047	0.0002	0.1159	0.0006	0.1136	0.0006	52.8	<0.002	667	<0.1	0.2401	0.0012	0.765	0.001	
EPL96	09 Apr 2025	0.50	0.42	<0.004	-	-	0.02	128	-	<0.005	-	0.0003	-	0.0003	-	<0.0005	-	0.004	-	<0.1	-	0.0006	-	0.010	-
EPL96	06 May 2025	1.20	0.10	<0.004	-	-	<0.01	97	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0034	-	0.002	-
EPL96	21 May 2025	<1.00	0.26	<0.004	-	-	<0.01	174	1.56	<0.005	0.0016	0.0006	0.0196	0.0120	0.0037	0.0013	1.86	0.002	8.1	0.5	0.0091	0.0048	0.023	0.002	

EPL55		Chlorine - Total Residual	NH3 (as N)	CN-	NO3 2-	NO2-	PO4-P (P)	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL55	08 Dec 2024	<0.02	<0.01	<0.004	-	-	0.007	-	391	0.147	<0.005	0.0004	0.0004	0.0011	0.0007	0.0005	<0.0005	0.147	<0.002	0.4	<0.1	0.0018	0.0014	0.039	0.036
EPL55	16 Dec 2024	<0.02	<0.01	0.015	-	-	0.003	-	390	0.034	<0.005	0.0005	0.0005	0.0007	0.0007	<0.0005	<0.0005	0.026	<0.002	<0.1	<0.1	0.0012	0.0006	0.008	0.004
EPL55	17 Feb 2025	<0.02	0.02	<0.004	274	0.10	<0.01	-	360	0.011	<0.005	0.0008	0.0006	0.0006	0.0005	<0.0005	<0.0005	0.086	<0.002	0.1	<0.1	0.0018	0.0011	0.008	0.004

Event ID	Date	Chlorine - Total Residual	NH3 (as N)	CN-	NO3 2-	NO2-	PO4-P (P)	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL90	02 Dec 2024	-	<0.01	<0.004	-	-	0.023	-	21	17.4	0.015	0.0001	<0.0002	0.0406	<0.0002	0.0403	<0.0005	24.9	0.013	88.6	<0.1	0.0814	0.0002	0.239	0.015
EPL90	09 Dec 2024	-	<0.01	<0.004	-	-	0.006	-	25	1.61	0.021	0.0004	<0.0002	0.0040	<0.0002	0.0020	<0.0005	2.36	0.002	6.1	<0.1	0.0094	0.0023	0.029	0.009
EPL90	16 Dec 2024	-	0.02	<0.004	-	-	0.007	-	12	8.07	0.006	0.0046	<0.0002	0.0171	<0.0002	0.0180	<0.0004	11.5	0.002	<0.1	<0.1	0.0047	0.0024	0.105	0.019
EPL90	24 Dec 2024	-	<0.01	<0.004	-	-	0.003	-	15	5.32	0.006	0.0028	<0.0002	0.0720	<0.0002	0.0172	<0.0004	6.93	<0.002	22.3	<0.1	0.0219	0.0026	0.266	0.012
EPL90	30 Dec 2024	-	<0.01	<0.004	-	-	0.004	-	12	4.30	0.010	0.0024	<0.0002	0.0096	<0.0002	0.0086	<0.0005	5.98	0.007	16.5	<0.1	0.0180	0.0022	0.261	0.010
EPL90	06 Jan 2025	-	<0.01	<0.004	-	-	0.002	-	8	0.844	0.007	0.0006	<0.0002	0.0071	<0.0002	0.0006	<0.0005	2.53	<0.002	11.2	<0.1	0.0028	0.0020	0.011	0.008
EPL90	13 Jan 2025	0.03	0.04	<0.004	-	-	0.006	-	12	0.472	0.006	<0.0002	<0.0002	0.0010	<0.0002	0.0012	<0.0005	0.494	<0.002	1.1	<0.1	0.0006	0.0018	0.015	0.012
EPL90	20 Jan 2025	-	0.02	<0.004	-	-	0.010	-	16	4.11	0.010	0.0022	<0.0002	0.0080	<0.0002	0.0061	<0.0005	4.67	0.006	16.0	<0.1	0.0166	0.0024	0.044	0.016
EPL90	27 Jan 2025	-	0.04	<0.004	0.03	<0.05	-	<0.01	12	1.63	0.007	0.0004	<0.0002	0.0037	<0.0002	0.0032	<0.0005	2.06	<0.002	5.9	<0.1	0.0077	0.0022	0.025	0.010
EPL90	03 Feb 2025	<0.20	0.01	<0.004	0.25	<0.05	<0.01	-	12	17.4	<0.005	0.0085	<0.0002	0.0419	<0.0002	0.0406	<0.0005	25.8	<0.002	66.7	<0.1	0.0667	0.0022	0.251	0.012
EPL90	10 Feb 2025	-	0.01	<0.004	0.40	<0.05	0.01	-	29	5.62	<0.005	0.0027	<0.0002	0.0131	<0.0002	0.0140	<0.0005	23.6	<0.002	26.6	<0.1	0.0031	0.0022	0.085	0.011
EPL90	17 Feb 2025	-	<0.01	<0.004	7.79	<0.05	<0.01	-	26	5.12	0.045	0.0026	<0.0002	0.0104	<0.0002	0.0103	0.0001	6.96	0.084	16.2	0.2	0.0197	0.0030	0.266	0.012
EPL90	25 Feb 2025	<0.04	<0.01	<0.004	3.15	<0.05	<0.01	-	16	0.947	0.003	0.0003	<0.0002	0.0016	<0.0002	0.0009	<0.0005	0.675	0.004	1.9	<0.1	0.0004	0.0001	0.021	0.006
EPL90	04 Mar 2025	<0.04	0.01	<0.004	1.24	<0.01	-	-	16	3.65	<0.005	0.0023	<0.0002	0.0085	<0.0002	0.0081	<0.0005	4.48	<0.002	14.7	<0.1	0.0096	0.0022	0.040	0.006
EPL90	10 Mar 2025	-	0.13	<0.004	1.42	<0.05	<0.01	-	16	17.5	<0.005	0.0012	<0.0002	0.0427	<0.0002	0.0469	<0.0005	26.5	<0.002	91.3	<0.1	0.0604	0.0017	0.235	0.019
EPL90	17 Mar 2025	0.18	0.05	<0.004	1.88	<0.01	<0.01	-	16	2.10	<0.005	0.0013	<0.0002	0.0056	<0.0002	0.0066	<0.0005	3.14	<0.002	3.5	<0.1	0.0113	0.0020	0.038	0.009
EPL90	24 Mar 2025	-	<0.01	<0.004	2.74	<0.05	<0.01	-	20	1.24	<0.005	0.0008	<0.0002	0.0025	<0.0002	0.0026	<0.0005	1.86	<0.002	3.0	<0.1	0.0001	0.0022	0.109	0.011
EPL90	31 Mar 2025	-	0.04	<0.004	1.46	<0.05	<0.01	-	23	-	0.010	-	<0.0002	-	<0.0002	-	<0.0005	-	0.006	-	<0.1	-	0.0024	-	0.011
EPL90	09 Apr 2025	0.09	<0.01	<0.004	-	<0.01	<0.01	-	16	-	0.006	-	<0.0002	-	0.0005	-	<0.0005	-	0.010	-	<0.1	-	0.0008	-	0.014
EPL90	16 Apr 2025	0.04	0.01	<0.004	-	<0.01	<0.01	-	20	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0015	-	0.007
EPL90	23 Apr 2025	-	0.01	<0.004	-	<0.01	<0.01	-	16	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0021	-	0.012
EPL90	08 May 2025	0.20	0.02	<0.004	-	<0.01	<0.01	-	27	-	<0.005	-	<0.0002	-	<0.0002	-	0.0013	-	<0.002	-	<0.1	-	0.0027	-	0.012
EPL90	20 May 2025	-	<0.01	<0.004	-	<0.01	<0.01	-	36	-	0.026	-	0.0003	-	0.0004	-	0.0001	-	0.002	-	0.3	-	0.0049	-	0.017



EPL92, EPL93, EPL94

EPL94		Chlorine - Total Residual	NPS (as N)	CN	NCS 2-	NCS-	PO4-P (P)	PO4-P	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL94	02 Dec 2024	-	<0.01	<0.004	-	-	0.002	-	74	1.40	<0.005	0.0066	0.0007	0.0091	<0.0002	0.0028	<0.0005	3.39	<0.002	7.0	<0.1	0.0061	0.0076	0.128	0.009
EPL94	09 Dec 2024	-	0.01	<0.004	-	-	0.001	-	76	1.01	<0.005	0.0133	0.0019	0.0090	<0.0002	0.0036	<0.0005	8.50	<0.002	9.1	<0.1	0.0096	0.0074	0.432	0.007
EPL94	16 Dec 2024	-	<0.01	<0.004	-	-	0.004	-	85	2.44	<0.005	0.0121	0.0015	0.0092	<0.0002	0.0040	<0.0005	8.22	<0.002	13.5	<0.1	0.0106	0.0011	0.274	0.006
EPL94	24 Dec 2024	-	0.01	<0.004	-	-	0.006	-	80	1.38	<0.005	0.0106	0.0012	0.0046	<0.0002	0.0031	<0.0005	4.16	<0.002	8.7	<0.1	0.0017	0.0017	0.113	0.016
EPL94	30 Dec 2024	-	<0.01	<0.004	-	-	0.004	-	89	1.55	<0.005	0.0104	0.0015	0.0040	<0.0002	0.0038	<0.0005	5.31	0.002	8.2	<0.1	0.0080	0.0070	0.172	0.010
EPL94	06 Jan 2025	-	<0.01	<0.004	-	-	0.003	-	80	1.21	<0.005	0.0081	0.0014	0.0041	<0.0002	0.0024	<0.0005	4.24	<0.002	8.8	<0.1	0.0016	0.0016	0.100	0.008
EPL94	13 Jan 2025	0.03	<0.01	<0.004	-	-	0.002	-	80	1.00	<0.005	0.0014	0.0012	0.0028	<0.0002	0.0026	<0.0005	3.16	<0.002	11.4	<0.1	0.0026	0.0020	0.084	0.003
EPL94	20 Jan 2025	-	<0.01	<0.004	-	-	0.014	-	115	1.25	<0.005	0.0106	0.0005	0.0033	<0.0002	0.0024	<0.0005	4.05	0.004	4.4	<0.1	0.0056	0.0015	0.086	0.006
EPL94	27 Jan 2025	-	0.06	<0.004	<0.05	<0.05	-	<0.01	76	2.68	<0.005	0.0126	0.0015	0.0062	<0.0002	0.0086	<0.0005	7.11	<0.002	13.6	<0.1	0.0128	0.0012	0.364	0.009
EPL94	03 Feb 2025	0.03	0.01	<0.004	<0.05	<0.05	<0.01	-	76	1.18	<0.005	0.0102	0.0007	0.0032	<0.0002	0.0023	<0.0005	3.92	<0.002	7.3	<0.1	0.0059	0.0070	0.077	0.004
EPL94	10 Feb 2025	-	0.01	<0.004	<0.05	<0.05	<0.01	-	98	1.00	<0.005	0.0117	0.0008	0.0029	<0.0002	0.0017	<0.0005	4.13	<0.002	6.0	<0.1	0.0026	0.0008	0.075	0.015
EPL94	17 Feb 2025	-	0.02	<0.004	<0.05	<0.05	<0.01	-	76	0.410	<0.005	0.0049	0.0005	0.0019	<0.0002	0.0010	<0.0005	1.82	<0.002	2.1	<0.1	0.0033	0.0009	0.046	0.003
EPL94	25 Feb 2025	0.18	0.01	<0.004	<0.05	<0.05	<0.01	-	80	0.115	<0.005	0.0026	0.0008	0.0002	<0.0002	<0.0005	0.806	<0.002	0.3	<0.1	0.0020	0.0012	0.008	0.002	
EPL94	04 Mar 2025	<0.04	0.09	<0.004	<0.05	<0.05	<0.01	-	74	0.362	<0.005	0.0112	0.0011	0.0026	<0.0002	0.0017	<0.0005	3.49	<0.002	3.9	<0.1	0.0049	0.0011	0.063	0.004
EPL94	10 Mar 2025	-	0.02	<0.004	<0.05	<0.05	<0.01	-	76	2.22	<0.005	0.0149	0.0017	0.0067	<0.0002	0.0048	<0.0005	7.80	<0.002	8.6	<0.1	0.0114	0.0012	0.172	0.003
EPL94	17 Mar 2025	0.04	0.03	<0.004	<0.05	<0.05	<0.01	-	87	3.08	<0.005	0.0167	0.0016	0.0062	<0.0002	0.0062	<0.0005	6.00	0.002	18.6	<0.1	0.0134	0.0011	0.230	0.002
EPL94	24 Mar 2025	-	<0.01	<0.004	<0.05	<0.05	<0.01	-	80	1.38	<0.005	0.0100	0.0013	0.0034	<0.0002	0.0027	<0.0005	4.33	<0.002	24.3	<0.1	0.0092	0.0007	0.119	0.005
EPL94	31 Mar 2025	-	0.05	<0.004	<0.05	<0.05	<0.01	-	87	-	<0.005	-	-	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0007	-	0.004
EPL94	09 Apr 2025	0.07	0.04	<0.004	-	-	<0.01	-	74	-	<0.005	-	0.0036	-	<0.0002	-	<0.0005	-	0.876	-	<0.1	-	0.0016	-	0.011
EPL94	16 Apr 2025	-	0.02	<0.004	-	-	<0.01	-	72	-	<0.005	-	0.0013	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0009	-	0.004
EPL94	20 Apr 2025	-	0.02	<0.004	-	-	<0.01	-	80	-	<0.005	-	0.0013	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0009	-	0.006
EPL94	30 Apr 2025	<0.02	0.05	<0.004	-	-	<0.01	-	78	-	<0.005	-	0.0029	-	<0.0002	-	<0.0005	-	0.879	-	<0.1	-	0.0012	-	0.004
EPL94	05 May 2025	<0.04	0.06	<0.004	-	-	0.01	-	83	-	<0.005	-	0.0011	-	<0.0002	-	<0.0005	-	0.003	-	<0.1	-	0.0011	-	0.001
EPL94	12 May 2025	-	0.02	<0.004	-	-	<0.01	-	78	-	<0.005	-	0.0007	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0007	-	<0.001
EPL94	19 May 2025	0.04	0.03	<0.004	-	-	<0.01	-	78	-	<0.005	-	0.0006	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0007	-	0.003
EPL94	26 May 2025	-	0.02	<0.004	-	-	<0.01	-	87	-	<0.005	-	0.0012	-	<0.0002	-	<0.0005	-	<0.002	-	<0.1	-	0.0010	-	0.002

EPL92		Chlorine - Total Residual	NPS (as N)	CN	NCS 2-	NCS-	PO4-P (P)	PO4-P	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL92	02 Dec 2024	-	<0.01	<0.004	-	-	0.003	-	50	0.92	<0.005	0.0102	0.0004	0.0098	<0.0002	0.0040	<0.0005	16.7	<0.002	836	0.3	0.0096	0.0021	0.163	0.016
EPL92	09 Dec 2024	-	<0.01	<0.004	-	-	<0.001	-	36	16.8	<0.005	0.0110	0.0004	0.0296	<0.0002	0.0016	<0.0005	17.7	<0.002	751	<0.1	0.0498	0.0014	0.297	0.006
EPL92	16 Dec 2024	-	0.01	<0.004	-	-	0.004	-	50	12.2	<0.005	0.0108	0.0004	0.0126	<0.0002	0.0002	<0.0005	9.72	<0.002	444	<0.1	0.0240	0.0013	0.140	0.006
EPL92	24 Dec 2024	-	<0.01	<0.004	-	-	0.006	-	56	13.8	<0.005	0.0140	0.0005	0.0117	<0.0002	0.0010	<0.0005	12.5	<0.002	537	0.2	0.0096	0.0023	0.205	0.016
EPL92	30 Dec 2024	-	<0.01	<0.004	-	-	0.006	-	38	8.56	<0.005	0.0102	0.0004	0.0127	<0.0002	0.0010	<0.0005	9.75	<0.002	470	0.5	0.0265	0.0028	0.142	0.020
EPL92	06 Jan 2025	-	<0.01	<0.004	-	-	<0.001	-	40	4.36	<0.005	0.0057	0.0003	0.0108	<0.0002	0.0015	<0.0005	6.72	<0.002	325	0.5	0.0181	0.0022	0.084	0.017
EPL92	13 Jan 2025	0.18	0.02	<0.004	-	-	0.008	-	48	9.96	<0.005	0.0060	0.0005	0.0125	<0.0002	0.0014	<0.0005	10.4	<0.002	319	0.2	0.0260	0.0010	0.146	0.009
EPL92	20 Jan 2025	-	0.24	<0.004	-	-	0.009	-	52	13.5	<0.005	0.0104	0.0004	0.0152	<0.0002	0.0024	<0.0005	10.2	0.003	431	0.1	0.0274	0.0018	0.146	0.009
EPL92	27 Jan 2025	-	0.01	<0.004	0.13	<0.05	-	<0.01	42	5.81	<0.005	0.0073	0.0005	0.0089	<0.0002	0.0138	<0.0005	6.25	<0.002	375	0.5	0.0181	0.0023	0.150	0.015
EPL92	03 Feb 2025	0.20	0.08	<0.004	0.18	<0.05	<0.01	-	38	5.44	<0.005	0.0051	0.0004	0.0086	<0.0002	0.0121	<0.0005	5.43	<0.002	180	1.9	0.0150	0.0016	0.095	0.009
EPL92	10 Feb 2025	-	0.02	<0.004	0.18	<0.05	0.02	-	57	9.26	<0.005	0.0067	0.0004	0.0122	<0.0002	0.0034	<0.0005	5.63	<0.002	289	0.4	0.0281	0.0026	0.172	0.018
EPL92	17 Feb 2025	-	0.21	<0.004	0.22	<0.05	<0.01	-	45	7.14	<0.005	0.0068	0.0004	0.0162	<0.0002	0.0024	<0.0005	11.4	<0.002	494	0.5	0.0308	0.0023	0.158	0.016
EPL92	25 Feb 2025	0.30	0.02	<0.004	0.30	<0.05	<0.01	-	52	5.37	<0.005	0.0063	0.0007	0.0095	<0.0002	0.0117	<0.0005	4.98	<0.002	181	0.1	0.0149	0.0018	0.088	0.006
EPL92	04 Mar 2025	0.10	0.02	<0.004	0.18	<0.05	<0.01	-	42	5.85	<0.005	0.0070	0.0004	0.0098	<0.0002	0.0131	<0.0005	6.06	<0.002	265	0.3	0.0165	0.0014	0.091	0.006
EPL92	10 Mar 2025	-	<0.01	<0.004	0.18	<0.05	<0.01	-	40	3.89	<0.005	0.0046	<0.0002	0.0014	<0.0002	0.0104	<0.0005	5.09	<0.002	166	0.4	0.0145	0.0013	0.078	0.007
EPL92	17 Mar 2025	0.80	0.01	<0.004	0.09	<0.05	<0.01	-	38	6.26	<0.005	0.0057	0.0004	0.0076	<0.0002	0.0102	<0.0005	5.27	<0.002	151	<0.1	0.0131	0.0010	0.093	0.006
EPL92	24 Mar 2025	-	<0.01	<0.004	0.18	<0.05	<0.01	-	42	1.63	<0.005	0.0022	0.0003	0.0019	<0.0002	0.0044	<0.0005	1.82	<0.002	36.9	0.3	0.0089	0.0014	0.046	0.009
EPL92	31 Mar 2025	-	<0.01	<0.004	0.13	<0.05	<0.01	-	47	-	<0.005	-	0.0003	-	<0.0002	-	<0.0005	-	<0.002	-	0.2	-	0.0013	-	0.006
EPL92	09 Apr 2025	0.30	0.02	<0.004	-	-	<0.01	-	33	-	<0.005	-	0.0004	-	<0.0002	-	<0.0005	-	0.005	-	1.6	-	0.0029	-	0.020
EPL92	16 Apr 2025	-	0.01	<0.004	-	-	<0.01	-	36	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0005	-	<0.002	-	0.3	-	0.0011	-	0.006
EPL92	20 Apr 2025	-	0.02	<0.004	-	-	<0.01	-	37	-	<0.005	-	0.0005	-	<0.0002	-	<0.0005	-	<0.002	-	0.4	-	0.0021	-	0.016
EPL92	30 Apr 2025	0.40	0.04	&																					

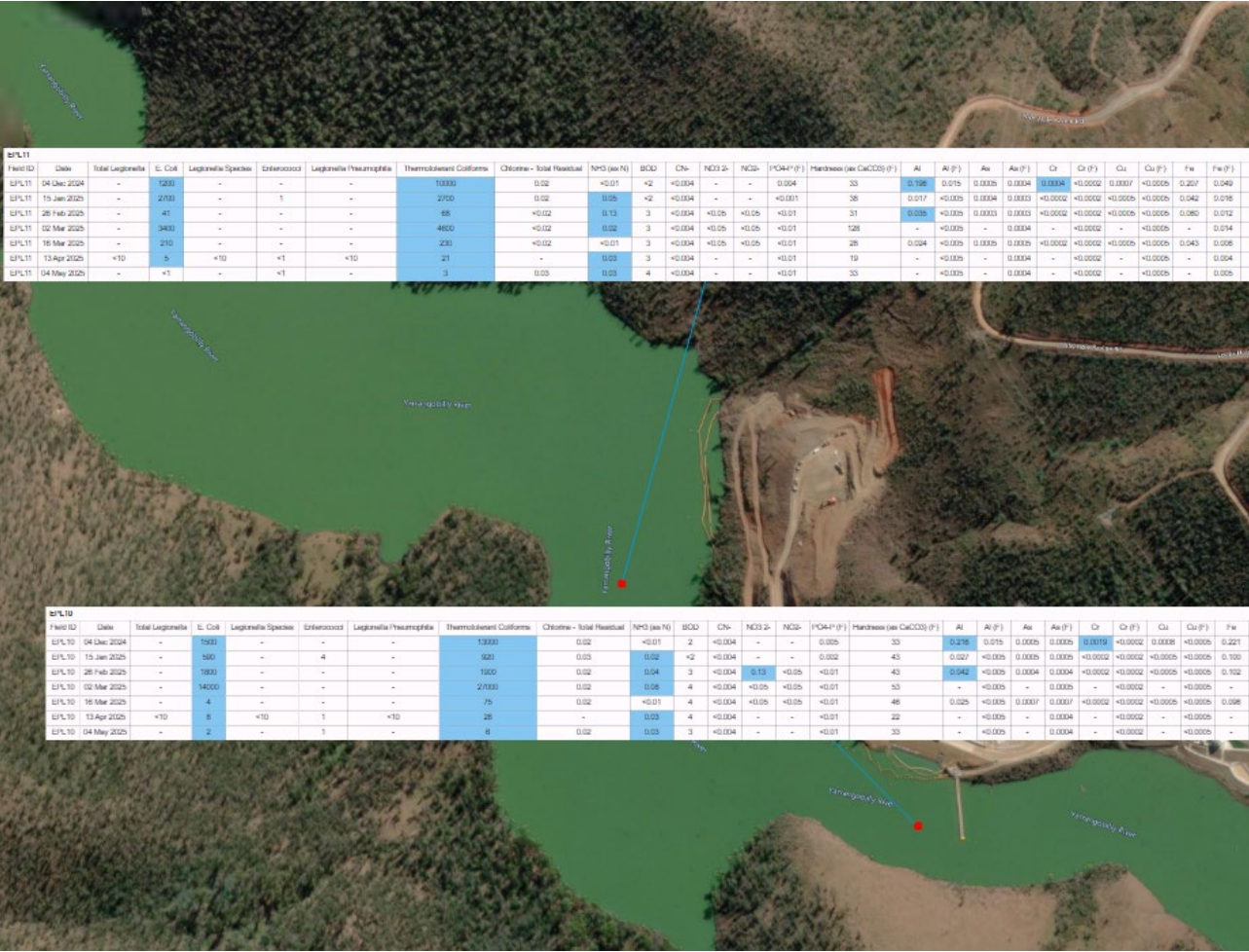


EPL41, EPL56

EPL41																			
Well ID	Date	S. Coll	Drillercost	Thermostated Outflow	Chlorine - Total Residual	NPS (see N)	SDO	CN	NC2.2	NC2.5	FO4P (P)	FO4P	Hardness (as CaCO3) (P)	Al	Al (P)	Au	Au (P)	Cr	Cr (P)
EPL41	01 Dec 2024	<1	-	<1	-	0.74	<2	<0.004	-	-	<0.001	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	08 Dec 2024	<1	-	<1	<0.02	0.80	<2	<0.004	-	-	0.007	-	<1	0.008	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	11 Dec 2024	<1	<1	<1	<0.02	0.80	<2	<0.004	-	-	0.005	-	<1	-	<0.005	-	<0.0002	-	<0.0002
EPL41	01 Jan 2025	2	9	3	<0.02	0.83	2	<0.004	-	-	<0.001	-	<1	-	<0.005	-	<0.0002	-	<0.0002
EPL41	05 Jan 2025	3	-	9	<0.02	0.07	<2	<0.004	-	-	0.002	-	2	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	15 Jan 2025	<1	1	1	<0.02	22.0	<2	<0.004	-	-	<0.001	-	<1	0.007	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	22 Jan 2025	<1	-	<1	<0.02	3.03	<2	<0.004	-	-	<0.001	-	<1	0.017	0.008	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	29 Jan 2025	1	-	1	0.06	3.30	<2	<0.004	0.85	0.56	-	0.02	57	0.048	0.022	0.0013	0.0012	0.0002	<0.0002
EPL41	02 Feb 2025	-	<1	-	<0.02	2.11	-	0.011	70.9	7.52	0.07	-	108	0.055	0.018	0.0032	0.0030	0.0147	0.0133
EPL41	09 Feb 2025	<1	27	<1	<0.02	0.15	<2	<0.004	1.73	2.82	0.02	-	126	0.033	0.033	0.0007	0.0006	0.0264	0.0235
EPL41	23 Feb 2025	14	-	14	<0.02	0.13	<2	0.007	0.35	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	02 Mar 2025	-	1	-	<0.02	0.90	<2	<0.004	0.75	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	05 Mar 2025	10	-	10	<0.02	0.10	<2	<0.004	0.31	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	09 Mar 2025	3	-	3	<0.02	0.03	<2	<0.004	0.13	<0.05	<0.01	-	<1	-	<0.005	-	<0.0002	-	<0.0002
EPL41	12 Mar 2025	-	-	-	<0.02	0.90	<2	<0.004	0.75	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	09 Mar 2025	5	-	5	<0.02	0.02	<2	<0.004	0.13	<0.05	<0.01	-	<1	-	<0.005	-	<0.0002	-	<0.0002
EPL41	16 Mar 2025	6	-	6	<0.02	<0.01	<2	<0.004	0.13	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	16 Mar 2025	9	-	11	<0.02	0.04	<2	<0.004	0.44	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	16 Mar 2025	8	-	14	<0.02	0.07	<2	<0.004	0.36	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	16 Mar 2025	8	-	13	<0.02	0.04	<2	<0.004	0.39	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	16 Mar 2025	8	<1	8	<0.02	0.04	2	<0.004	<0.05	<0.01	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	23 Mar 2025	8	<1	8	<0.02	0.06	<2	<0.004	0.09	<0.05	<0.01	-	<1	<0.005	<0.005	<0.0002	<0.0002	<0.0002	<0.0002
EPL41	23 Apr 2025	<1	1	<1	<0.02	0.02	<2	<0.004	-	-	<0.01	-	<1	-	<0.005	-	<0.0002	-	<0.0002
EPL41	29 May 2025	<1	<1	<1	<0.02	<0.01	5	<0.004	-	-	<0.01	-	<1	-	<0.005	-	<0.0002	-	<0.0002

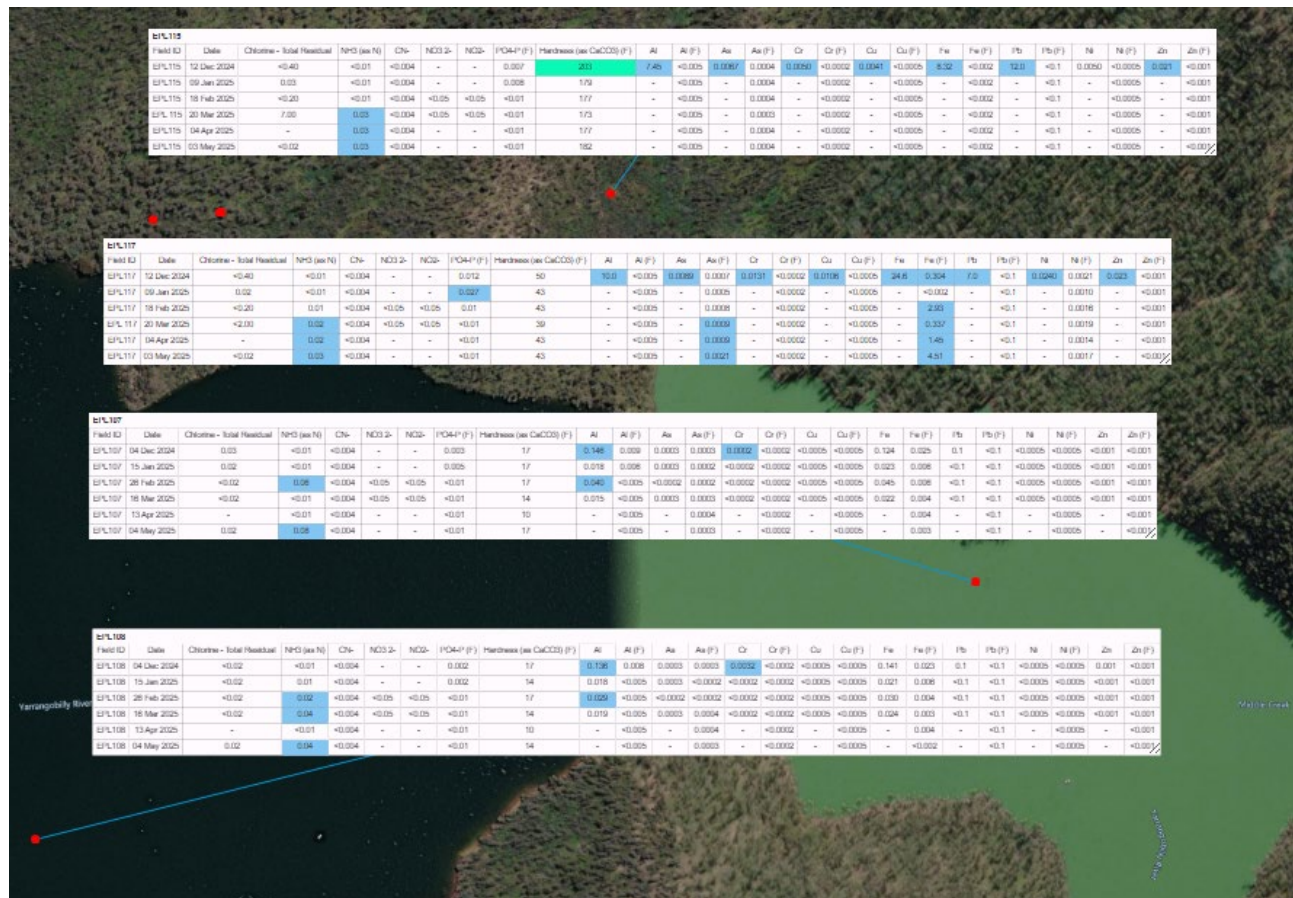
EPL56																			
Well ID	Date	Chlorine - Total Residual	NPS (see N)	CN	NC2.2	NC2.5	FO4P (P)	FO4P	Hardness (as CaCO3) (P)	Al	Al (P)	Au	Au (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)
EPL56	02 Dec 2024	-	<0.01	<0.004	-	-	0.007	-	134	0.136	<0.005	<0.0002	<0.0002	0.0006	<0.0002	0.0204	0.0207	0.160	<0.002
EPL56	09 Dec 2024	-	<0.01	<0.004	-	-	0.005	-	126	1.03	<0.005	0.0004	<0.0002	0.0005	<0.0002	0.0605	0.0395	1.36	<0.002
EPL56	16 Dec 2024	-	0.01	0.014	-	-	0.005	-	109	0.229	<0.005	<0.0002	<0.0002	0.0006	<0.0002	0.0176	0.0190	0.291	<0.002
EPL56	24 Dec 2024	-	<0.01	<0.004	-	-	0.004	-	126	0.135	<0.005	<0.0002	<0.0002	0.0005	<0.0002	0.0437	0.0395	0.177	<0.002
EPL56	30 Dec 2024	-	<0.01	<0.004	-	-	0.003	-	109	0.188	<0.005	<0.0002	<0.0002	0.0005	<0.0002	0.0377	0.0225	0.224	<0.002
EPL56	06 Jan 2025	-	<0.01	<0.004	-	-	0.002	-	129	0.344	<0.005	0.0002	<0.0002	0.0014	<0.0002	0.0174	0.0136	0.303	<0.002
EPL56	13 Jan 2025	0.06	0.03	<0.004	-	-	0.003	-	126	0.083	<0.005	<0.0002	<0.0002	0.0002	<0.0002	0.0174	0.0026	0.089	<0.002
EPL56	20 Jan 2025	-	0.01	<0.004	-	-	0.015	-	194	0.144	<0.005	<0.0002	<0.0002	0.0004	<0.0002	0.0094	0.0017	0.171	<0.002
EPL56	27 Jan 2025	-	0.08	<0.004	0.16	<0.05	-	<0.01	107	0.308	<0.005	0.0003	<0.0002	0.0013	<0.0002	0.0206	0.0037	0.529	<0.002
EPL56	03 Feb 2025	0.02	0.07	<0.004	0.16	<0.05	<0.01	-	113	0.117	<0.005	<0.0002	<0.0002	0.0004	<0.0002	0.0085	0.0012	0.135	<0.002
EPL56	10 Feb 2025	-	0.02	<0.004	0.16	<0.05	<0.01	-	116	0.017	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0043	0.0009	0.013	<0.002
EPL56	17 Feb 2025	-	0.04	<0.004	<0.05	0.08	<0.01	-	126	0.375	<0.005	0.0002	<0.0002	0.0012	<0.0002	0.0116	0.0009	0.472	<0.002
EPL56	25 Feb 2025	<0.02	0.09	<0.004	0.26	<0.05	<0.01	-	108	0.186	<0.005	<0.0002	<0.0002	0.0004	<0.0002	0.0012	0.0010	0.204	<0.002
EPL56	04 Mar 2025	0.03	0.01	<0.004	0.22	<0.05	<0.01	-	108	0.023	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0052	0.0022	0.018	<0.002
EPL56	10 Mar 2025	-	0.02	<0.004	0.26	<0.05	<0.01	-	104	0.038	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0046	0.0014	0.040	<0.002
EPL56	17 Mar 2025	0.04	0.06	<0.004	0.13	<0.05	<0.01	-	133	0.363	<0.005	<0.0002	<0.0002	0.0013	<0.0002	0.0110	0.0008	0.443	<0.002
EPL56	24 Mar 2025	-	<0.01	<0.004	0.40	<0.05	<0.01	-	125	0.021	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0040	0.0009	0.017	<0.002
EPL56	31 Mar 2025	-	0.02	<0.004	0.31	<0.05	<0.01	-	131	0.028	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0052	0.0006	0.033	<0.002
EPL56	09 Apr 2025	<0.02	<0.01	<0.004	-	-	<0.01	-	122	0.108	<0.005	<0.0002	<0.0002	0.0004	<0.0002	0.0102	0.0008	0.151	<0.002
EPL56	14 Apr 2025	-	0.02	<0.004	-	-	<0.01	-	85	0.094	<0.005	<0.0002	<0.0002	0.0004	<0.0002	0.0062	0.0010	0.125	<0.002
EPL56	20 Apr 2025	-	0.02	<0.004	-	-	<0.01	-	133	0.016	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0052	0.0009	0.016	<0.002
EPL56	30 Apr 2025	<0.02	0.10	<0.004	-	-	<0.01	-	126	-	<0.005	-	<0.0002	-	<0.0002	-	<0.0002	-	<0.002
EPL56	05 May 2025	0.03	0.01	<0.004	-	-	<0.01	-	138	0.166	<0.005	<0.0002	<0.0002	0.0006	<0.0002	0.0125	0.0009	0.207	<0.002
EPL56	12 May 2025	-	<0.01	<0.004	-	-	<0.01	-	132	0.023	<0.005	<0.0002	<0.0002	<0.0002	<0.0002	0.0050	0.0010	0.028	<0.002
EPL56	19 May 2025	0.08	0.04	<0.004	-	-	<0.01	-	133	1.17	<0.005	0.0008	<0.0002	0.0009	<0.0002	0.0100	0.0016	1.30	<0.002
EPL56	28 May 2025	-	0.03	<0.004	-	-	<0.01	-	140	0.223	<0.005	0.0002	<0.0002	0.0007	<0.0002	0.0049	0.0010	0.319	<0.002

EPL10, EPL11





EPL107, EPL108, EPL115, EPL117



EPL106, EPL109, EPL116





## EPL71, EPL72, EPL73, EPL102

EPL72		Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO3-	(NO4+)(F)	Hardness (as CaCO3)(F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb	Pb (F)	Ni	Ni (F)	Zn	Zn (F)	
EPL72	Field ID	08 Dec 2024	-	<0.01	<0.004	-	-	0.020	13	0.243	<0.005	0.0003	<0.0002	0.0013	<0.0002	0.0040	0.0012	0.315	<0.002	1.0	<0.1	0.0030	0.0017	0.011	0.008	
EPL72	Field ID	13 Dec 2024	-	0.02	<0.004	-	-	0.015	11	0.889	0.007	0.0005	<0.0002	0.0027	<0.0002	0.0048	0.0015	1.08	<0.002	3.1	<0.1	0.0039	0.0017	0.010	0.008	
EPL72	Field ID	20 Dec 2024	-	0.04	<0.004	-	-	0.012	13	0.206	0.007	0.0003	<0.0002	0.0010	<0.0002	0.0027	0.0014	0.285	<0.002	1.7	<0.1	0.0021	0.0013	0.008	0.007	
EPL72	Field ID	27 Dec 2024	-	0.02	<0.004	-	-	0.021	11	0.867	0.008	0.0006	<0.0002	0.0024	<0.0002	0.0017	0.0025	1.00	<0.002	3.0	<0.1	0.0032	0.0014	0.011	0.007	
EPL72	Field ID	05 Jan 2025	-	0.05	<0.004	-	-	0.020	13	1.46	0.009	0.0008	0.0002	0.0041	<0.0002	0.0115	0.0026	2.18	<0.002	8.0	<0.1	0.0050	0.0011	0.004	0.014	
EPL72	Field ID	12 Jan 2025	<0.02	0.02	<0.004	-	-	0.019	13	0.790	0.007	0.0005	<0.0002	0.0016	<0.0002	0.0080	0.0014	1.12	<0.002	3.4	<0.1	0.0028	0.0008	0.010	0.005	
EPL72	Field ID	17 Jan 2025	-	<0.01	<0.004	-	-	0.018	13	0.014	0.008	0.0002	<0.0002	0.0003	<0.0002	0.0214	0.0150	0.084	<0.002	0.5	<0.1	0.0024	0.0020	0.012	0.007	
EPL72	Field ID	28 Jan 2025	-	0.02	<0.004	-	-	0.021	13	0.477	0.008	0.0004	<0.0002	0.0012	<0.0002	0.0221	0.0101	0.484	<0.002	1.4	<0.1	0.0025	0.0013	0.008	0.008	
EPL72	Field ID	31 Jan 2025	0.08	0.02	<0.004	0.13	<0.05	0.01	11	1.17	0.007	0.0007	<0.0002	0.0028	<0.0002	0.0098	0.0276	1.57	<0.002	4.2	<0.1	0.0038	0.0010	0.011	0.005	
EPL72	Field ID	07 Feb 2025	-	0.16	<0.004	0.09	<0.05	0.02	13	0.980	0.008	<0.0002	<0.0002	0.0013	<0.0002	0.0049	0.0017	0.054	<0.002	0.3	<0.1	0.0020	0.0010	0.008	0.008	
EPL72	Field ID	15 Feb 2025	-	<0.01	<0.004	0.13	<0.05	0.03	13	0.461	0.008	0.0003	<0.0002	0.0020	<0.0002	0.0056	0.0006	0.513	<0.002	1.8	<0.1	0.0027	0.0008	0.009	0.004	
EPL72	Field ID	18 Mar 2025	<0.02	<0.01	<0.004	0.09	<0.05	0.02	11	0.100	0.007	<0.0002	<0.0002	0.0005	<0.0002	0.0052	0.0010	0.102	<0.002	0.8	<0.1	0.0017	0.0009	0.008	0.004	
EPL72	Field ID	29 Mar 2025	-	0.03	<0.004	0.13	<0.05	0.02	11	2.20	0.009	0.0013	<0.0002	0.0047	<0.0002	0.0216	0.0063	3.26	<0.002	8.5	0.1	0.0063	0.0017	0.023	0.012	
EPL72	Field ID	13 Apr 2025	-	0.01	<0.004	-	-	<0.01	13	0.784	0.005	0.0004	<0.0002	0.0009	<0.0002	0.0136	0.0042	0.986	<0.002	2.8	<0.1	0.0020	0.0010	0.009	0.004	
EPL72	Field ID	19 Apr 2025	-	0.01	<0.004	-	-	0.02	13	0.298	0.005	0.0002	<0.0002	0.0006	<0.0002	0.0165	0.0081	0.243	<0.002	0.7	<0.1	0.0020	0.0012	0.008	0.008	
EPL72	Field ID	26 Apr 2025	0.02	0.01	<0.004	-	-	0.03	13	-	0.008	-	<0.0002	-	<0.0002	-	0.0043	-	<0.002	-	<0.1	-	0.0037	-	0.008	-
EPL72	Field ID	02 May 2025	<0.02	0.03	<0.004	-	-	0.02	13	0.948	0.007	<0.0002	<0.0002	0.0003	<0.0002	0.0031	0.0012	0.028	<0.002	0.3	<0.1	0.0028	0.0017	0.007	0.008	
EPL72	Field ID	09 May 2025	-	0.01	<0.004	-	-	0.03	13	0.188	0.008	0.0002	<0.0002	0.0005	<0.0002	0.0002	0.0013	0.144	<0.002	0.8	<0.1	0.0017	0.0012	0.007	0.008	
EPL72	Field ID	18 May 2025	0.08	<0.01	<0.004	-	-	0.02	13	1.62	0.007	0.0008	<0.0002	0.0046	<0.0002	0.0086	0.0010	2.01	<0.002	8.1	<0.1	0.0053	0.0014	0.013	0.008	
EPL72	Field ID	23 May 2025	<0.02	0.02	<0.004	-	-	0.03	11	0.818	0.007	0.0004	<0.0002	0.0001	<0.0002	0.0047	0.0010	0.927	<0.002	2.9	<0.1	0.0039	0.0012	0.009	0.005	
EPL72	Field ID	30 May 2025	-	0.02	<0.004	-	-	0.04	11	3.24	0.008	0.0011	<0.0002	0.0037	<0.0002	0.0142	0.0020	3.02	<0.002	7.7	<0.1	0.0061	0.0014	0.017	0.008	
EPL72	Field ID	21 Feb 2025	0.03	0.02	<0.004	0.16	<0.05	0.03	13	0.311	<0.005	0.0002	<0.0002	0.0010	<0.0002	0.0042	0.0012	0.395	<0.002	1.3	<0.1	0.0020	0.0011	0.007	0.005	

EPL71		Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO3-	(NO4+)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb	Pb (F)	Ni	Ni (F)	Zn	Zn (F)
EPL71	Field ID	08 Dec 2024	0.02	<0.01	<0.004	0.003	-	-	32	1.41	0.012	0.0010	0.0005	0.0028	<0.0002	0.0034	<0.0005	1.85	0.004	0.5	<0.1	0.0062	0.0013	0.004	<0.001
EPL71	Field ID	13 Dec 2024	0.03	<0.01	<0.004	0.006	-	-	18	1.03	0.015	0.0009	0.0005	0.0016	<0.0002	0.0016	<0.0005	1.21	0.009	0.4	<0.1	0.0039	0.0012	0.002	<0.001
EPL71	Field ID	20 Dec 2024	<0.02	<0.01	<0.004	0.005	-	-	25	0.578	0.008	0.0007	0.0003	0.0009	<0.0002	0.0010	<0.0005	0.830	0.014	0.2	<0.1	0.0025	0.0011	0.003	0.001
EPL71	Field ID	23 May 2025	<0.40	0.03	<0.004	0.02	-	-	40	34.9	0.013	0.0088	0.0005	0.0022	0.0005	0.0047	0.0009	44.4	0.038	15.7	<0.1	0.010	0.0009	0.018	<0.001

EPL102		Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO3-	(NO4+)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb	Pb (F)	Ni	Ni (F)	Zn	Zn (F)
EPL102	Field ID	08 Dec 2024	-	0.03	<0.004	-	-	0.009	181	0.944	<0.005	0.0007	0.0005	0.0018	<0.0002	0.0063	<0.0005	1.14	<0.002	0.8	<0.1	0.0022	0.0008	0.003	<0.001
EPL102	Field ID	13 Dec 2024	-	<0.01	<0.004	-	-	0.025	48	0.915	<0.005	<0.0002	<0.0002	0.0014	<0.0002	0.0191	0.0086	0.870	<0.002	0.5	<0.1	0.0025	0.0018	0.004	0.003
EPL102	Field ID	20 Dec 2024	-	<0.01	<0.004	-	-	0.009	386	0.024	<0.005	0.0004	0.0003	<0.0002	<0.0002	0.0018	<0.0005	0.048	<0.002	<0.1	<0.1	0.0015	0.0010	0.002	<0.001
EPL102	Field ID	27 Dec 2024	-	<0.01	<0.004	-	-	0.013	100	0.123	<0.005	0.0002	<0.0002	0.0003	<0.0002	0.0010	0.0006	0.988	<0.002	<0.1	<0.1	0.0018	0.0016	0.002	0.002
EPL102	Field ID	05 Jan 2025	-	0.05	<0.004	-	-	0.010	211	0.430	<0.005	0.0004	0.0004	0.0009	<0.0002	0.0017	<0.0005	0.962	<0.002	0.4	<0.1	0.0022	0.0011	0.005	0.002
EPL102	Field ID	12 Jan 2025	0.02	0.03	<0.004	-	-	0.015	121	0.148	<0.005	0.0007	0.0006	0.0002	<0.0002	0.0019	<0.0005	0.279	<0.002	0.1	<0.1	0.0017	0.0008	0.002	<0.001
EPL102	Field ID	18 Jan 2025	-	<0.01	<0.004	-	-	0.014	275	0.221	<0.005	0.0005	0.0004	0.0004	<0.0002	0.0018	<0.0005	0.239	<0.002	0.1	<0.1	0.0019	0.0013	0.002	<0.001
EPL102	Field ID	26 Jan 2025	-	0.08	<0.004	-	-	0.019	189	0.804	<0.005	0.0004	0.0004	0.0009	<0.0002	0.0060	<0.0005	0.908	<0.002	0.4	<0.1	0.0025	0.0012	0.004	<0.001
EPL102	Field ID	31 Jan 2025	0.08	0.01	<0.004	<0.05	<0.05	<0.01	109	1.10	<0.005	0.0007	0.0004	0.0018	<0.0002	0.0102	0.0006	1.26	<0.002	0.7	<0.1	0.0025	0.0010	0.003	<0.001
EPL102	Field ID	07 Feb 2025	-	0.03	<0.004	<0.05	<0.05	0.01	153	0.053	<0.005	0.0004	0.0004	<0.0002	<0.0002	0.0028	<0.0005	0.028	<0.002	<0.1	<0.1	0.0018	0.0011	0.002	<0.001
EPL102	Field ID	15 Feb 2025	-	0.03	<0.004	<0.05	<0.05	0.01	188	0.097	<0.005	0.0004	0.0004	<0.0002	<0.0002	0.0018	<0.0005	0.082	<0.002	<0.1	<0.1	0.0018	0.0010	0.002	<0.001
EPL102	Field ID	21 Feb 2025	0.03	0.03	<0.004	0.09	<0.05	0.02	154	0.154	<0.005	0.0002	0.0002	<0.0002	0.0014	<0.0005	0.158	<0.002	<0.1	<0.1	0.0012	0.0008	<0.001	<0.001	

Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO3-	(NO4+)(F)	Hardness (as CaCO3) (F)	Al	Al (F)	As	As (F)	Cr	Cr (F)	Cu	Cu (F)	Fe	Fe (F)	Pb	Pb (F)	Ni	Ni (F)	Zn	Zn (F)
EPL73	08 Dec 2024	-	0.01	<0.004	-	-	0.017	22	0.480	<0.005	<0.0002	<0.0002	0.0007	0.0002	0.0061	0.0004	0.703	<0.002	1.9	<0.1	0.0007	0.0018	0.002	0.006
EPL73	13 Dec 2024	-	0.01	<0.004	-	-	0.018	18	0.431	<0.005	<0.0002	<0.0002	0.0006	0.0003	0.0005	<0.0005	0.780	<0.002	1.9	<0.1	0.0007	<0.0005	0.002	<0.001
EPL73	20 Dec 2024	-	<0.01	<0.004	-	-	0.013	22	0.403	<0.005	<0.0002	<0.0002	0.0006	0.0002	0.0002	<0.0005	0.777	<0.002	1.4	<0.1	0.0005	<0.0005	0.002	0.001
EPL73	27 Dec 2024	-	0.04	<0.004	-	-	0.008	20	0.428	<0.005	<0.0002	<0.0002	0.0008	<0.0002	0.0060	0.0044	0.208	<0.002	1.1	<0.1	0.0007	0.0008	0.002	0.002
EPL73	05 Jan 2025	-	<0.01	<0.004	-	-	0.019	22	0.148	<0.005	<0.0002	<0.0002	0.0004	0.0002	0.0015	0.0005	0.998	<0.002	0.4	<0.1	0.0007	<0.0005	0.003	0.002
EPL73	28 Jan 2025	-	0.02	<0.004	-	-	0.013	22	0.340	<0.005	<0.0002	<0.0002	0.0005	0.0002	0.0040	0.0010	1.175	<0.002	1.1	<0.1	0.0007	<0.0005	0.002	<0.001
EPL73	31 Jan 2025	0.30	<0.01	<0.004	0.18	<0.005	0.01	16	0.321	<0.005	<0.0002	0.0002	0.0026	0.0002	0.0128	0.0008	1.08	<0.002	8.9	<0.1	0.0017	<0.0005	0.008	0.001
EPL73	15 Feb 2025	-	0.01	<0.004	0.13	<0.005	0.01	20	1.19	<0.005	0.0003	<0.0002	0.0013	0.0002	0.0014	<0.0005	0.830	<0.002	4.7	<0.1	0.0011	<0.0005	0.004	<0.001
EPL73	21 Feb 2025	<0.02	0.03	<0.004	0.19	<0.005	0.02	22	1.14	<0.005	<0.0002	<0.0002	0.0004	0.0002	0.0011	<0.0005	0.867	<0.002	0.4	<0.1	<0.0005	<0.0005	0.001	0.001



EPL99, EPL100, EPL101

Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)	
EPL101	13 Dec 2024	0.02	0.08	0.005	-	-	0.003	154	0.111	0.040	0.0039	0.0040	0.0022	0.0195	0.0010	0.0007	0.0050	+0.002	+0.1	+0.1	0.0008	0.0007	+0.001	+0.001	
EPL101	05 Jan 2025	0.02	0.02	+0.004	-	-	0.004	590	0.113	0.028	0.0028	0.0028	0.0134	0.0134	0.0016	0.0012	0.0067	+0.002	+0.1	+0.1	0.0015	0.0012	+0.001	+0.001	
EPL101	17 Jan 2025	+0.02	0.03	+0.004	-	-	0.005	343	0.402	0.005	0.0039	0.0038	0.0153	0.0145	0.0016	0.0012	0.0066	+0.002	0.4	+0.1	0.0018	0.0008	0.002	+0.001	
EPL101	07 Feb 2025	0.02	0.18	+0.004	144	1.54	+0.01	299	0.089	0.018	0.0020	0.0023	0.0071	0.0067	0.0017	0.0013	0.0042	+0.002	+0.1	+0.1	0.0014	0.0012	0.002	+0.001	
EPL101	15 Feb 2025	+0.20	0.10	+0.004	88.3	1.22	0.01	125	2.40	0.040	0.0028	0.0019	0.0163	0.0138	0.0034	0.0005	2.57	+0.002	2.3	+0.1	0.0084	+0.0005	0.010	+0.001	
EPL101	13 Apr 2025	-	2.11	0.007	-	-	+0.01	393	-	0.006	-	0.0023	-	0.0138	-	0.0017	-	+0.002	-	+0.1	-	0.0019	-	-	+0.001
EPL101	02 May 2025	0.03	0.10	0.012	-	-	+0.01	205	-	0.009	-	0.0023	-	0.0111	-	0.0021	-	+0.002	-	0.1	-	0.0019	-	-	0.003
EPL101	23 May 2025	+0.10	0.08	+0.004	-	-	0.03	84	-	0.023	-	0.0016	-	0.0030	-	0.0009	-	0.003	-	+0.1	-	0.0007	-	-	+0.001
EPL101	30 May 2025	-	0.14	+0.004	-	-	0.03	117	-	0.019	-	0.0023	-	0.0062	-	0.0011	-	+0.002	-	+0.1	-	0.0011	-	-	0.002

Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL99	09 Dec 2024	1.84	5.99	+0.004	-	-	0.010	198	0.297	0.025	0.0042	0.0040	0.0178	0.0120	0.0029	0.0012	0.427	+0.002	0.3	+0.1	0.0019	0.0009	0.007	0.002
EPL99	13 Dec 2024	0.33	2.96	0.067	-	-	0.013	174	0.294	0.031	0.0042	0.0042	0.0150	0.0149	0.0018	0.0011	0.238	+0.002	+0.1	+0.1	0.0014	0.0012	0.003	0.002
EPL99	20 Dec 2024	+0.02	4.80	+0.004	-	-	0.008	199	0.180	0.040	0.0026	0.0024	0.0130	0.0140	0.0008	+0.0005	0.107	+0.002	+0.1	+0.1	0.0007	0.0006	+0.001	0.001
EPL99	05 Jan 2025	0.02	1.76	0.061	-	-	0.007	193	0.384	0.016	0.0020	0.0018	0.0029	0.0021	0.0124	0.0080	0.014	+0.002	0.4	+0.1	0.0029	0.0014	0.015	0.003
EPL99	12 Jan 2025	0.04	2.16	0.004	-	-	0.011	190	0.970	0.033	0.0004	0.0006	0.0061	0.0069	0.0032	0.0012	1.91	0.009	0.8	+0.1	0.0018	+0.0005	0.004	+0.001
EPL99	17 Jan 2025	+0.02	0.96	+0.004	-	-	0.011	90	1.20	0.052	0.0020	0.0016	0.0125	0.0122	0.0015	+0.0005	1.85	0.002	0.5	+0.1	0.0019	+0.0005	0.005	+0.001
EPL99	26 Jan 2025	+0.02	6.37	0.533	-	-	0.011	294	0.457	0.011	0.0025	0.0024	0.0100	0.0080	0.0400	0.0041	0.635	0.003	0.2	+0.1	0.0044	0.0034	0.003	+0.001
EPL99	31 Jan 2025	+0.02	9.28	0.213	167	3.45	+0.01	195	0.170	0.005	0.0019	0.0018	0.0144	0.0135	0.0149	0.0093	0.139	+0.002	0.1	+0.1	0.0028	0.0025	0.002	+0.001
EPL99	07 Feb 2025	+0.02	3.38	+0.004	27.1	2.33	+0.01	75	1.77	0.046	0.0000	0.0000	0.0109	0.0094	0.0094	0.0011	2.21	+0.002	0.8	+0.1	0.0033	0.0037	0.006	+0.001
EPL99	15 Feb 2025	+0.02	0.88	+0.004	20.8	0.79	+0.01	85	0.533	0.019	0.0013	0.0012	0.0175	0.0163	0.0011	+0.0005	0.329	+0.002	0.3	+0.1	0.0008	+0.0005	0.007	+0.001
EPL99	18 Mar 2025	+0.02	0.13	+0.004	27.7	0.38	+0.01	198	1.46	0.085	0.0022	0.0014	0.0819	0.0198	0.0028	0.0007	0.984	0.005	1.1	+0.1	0.0023	+0.0005	0.007	+0.001
EPL99	29 Mar 2025	-	17.2	0.028	125	1.77	+0.01	128	-	0.038	-	0.0023	-	0.0062	-	0.0008	-	+0.002	-	+0.1	-	0.0008	-	+0.001
EPL99	13 Apr 2025	-	12.3	0.116	-	-	+0.01	170	-	0.016	-	0.0013	-	0.0141	-	0.0020	-	+0.002	-	+0.1	-	0.0008	-	+0.001
EPL99	19 Apr 2025	-	6.94	0.034	-	-	+0.01	90	-	0.040	-	0.0013	-	0.0021	-	+0.0005	-	0.003	-	+0.1	-	+0.0005	-	+0.001
EPL99	27 Apr 2025	+0.02	6.73	0.007	-	-	+0.01	92	-	0.139	-	0.0005	-	0.0023	-	0.0011	-	0.003	-	+0.1	-	+0.0005	-	+0.001
EPL99	02 May 2025	0.04	1.58	0.046	-	-	+0.01	120	-	0.044	-	0.0012	-	0.0069	-	+0.0005	-	+0.002	-	+0.1	-	+0.0005	-	+0.001
EPL99	09 May 2025	-	8.72	0.052	-	-	+0.01	191	-	0.073	-	0.0002	-	0.0089	-	0.0008	-	+0.002	-	+0.1	-	+0.0005	-	+0.001
EPL99	18 May 2025	+0.02	7.78	0.194	-	-	+0.01	190	-	0.013	-	0.0037	-	0.0146	-	0.0019	-	0.009	-	+0.1	-	0.0040	-	+0.001
EPL99	23 May 2025	+0.02	4.98	0.108	-	-	+0.01	178	-	+0.009	-	0.0027	-	0.0061	-	0.0047	-	0.009	-	+0.1	-	0.0031	-	+0.001
EPL99	30 May 2025	-	2.90	0.049	-	-	+0.01	162	-	0.007	-	0.0027	-	0.0023	-	0.0029	-	0.008	-	+0.1	-	0.0018	-	0.001
EPL99	27 Feb 2025	+0.02	1.83	0.008	8.84	1.25	+0.01	89	0.514	0.061	0.0008	0.0004	0.0270	0.0201	0.0012	+0.0005	0.792	0.002	0.2	+0.1	0.0005	+0.0005	0.002	+0.001

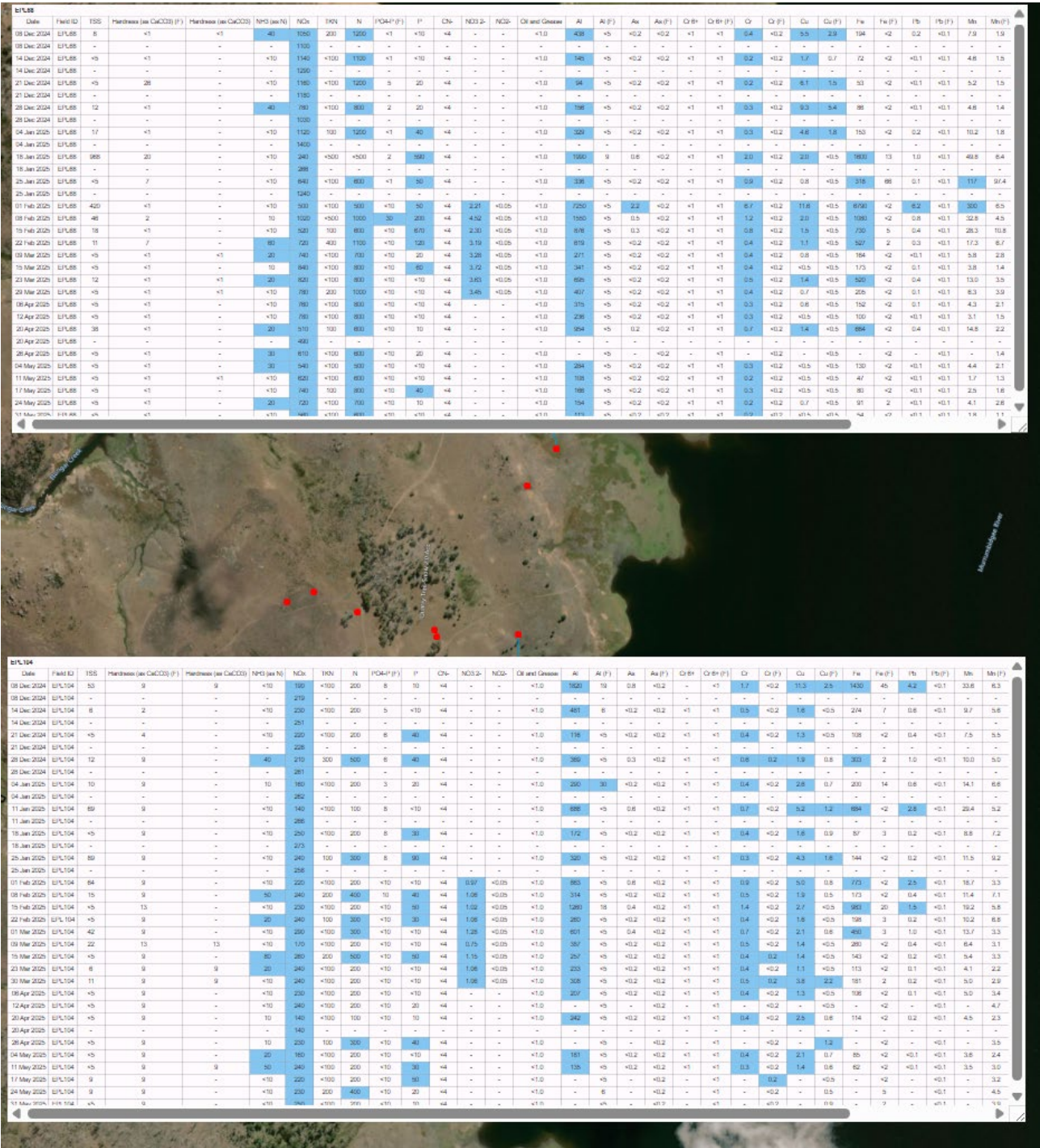
EPL100		Field ID	Date	Chlorine - Total Residual	NH3 (as N)	Ch-	NO3 2-	NO2-	PO4-P (P)	Hardness (as CaCO3) (P)	Al	Al (P)	As	As (P)	Cr	Cr (P)	Cu	Cu (P)	Fe	Fe (P)	Pb	Pb (P)	Ni	Ni (P)	Zn	Zn (P)
EPL100	09 Dec 2024	+0.02	0.08	+0.004	-	-	-	0.001	198	-	0.146	0.028	0.0029	0.0024	0.0070	0.0017	0.0007	0.0003	0.863	+0.002	0.7	+0.1	0.0002	0.0007	0.003	+0.001
EPL100	13 Dec 2024	0.02	+0.01	0.004	-	-	-	0.002	194	-	0.345	0.033	0.0001	0.0029	0.0004	0.0008	0.0009	0.0005	0.251	+0.002	0.2	+0.1	0.0011	0.0007	+0.001	+0.001
EPL100	20 Dec 2024	+0.02	0.04	+0.004	-	-	-	0.001	212	-	0.429	0.035	0.0003	0.0029	0.0116	0.0105	0.0010	+0.0005	0.295	+0.002	0.2	+0.1	0.0012	0.0006	0.001	+0.001
EPL100	12 Jan 2025	0.03	0.06	+0.004	-	-	-	0.003	169	-	2.21	0.035	0.0008	0.0024	0.0085	0.0021	0.0029	0.0009	3.03	+0.002	2.7	+0.1	0.0067	0.0008	0.011	+0.001
EPL100	17 Jan 2025	+0.02	0.03	+0.004	-	-	-	0.002	198	-	0.557	0.061	0.0028	0.0023	0.0060	0.0045	0.0014	0.0008	0.488	+0.002	0.4	+0.1	0.0018	0.0009	0.002	+0.001
EPL100	26 Jan 2025	0.02	0.02	+0.004	-	-	-	0.003	207	-	0.131	0.038	0.0000	0.0029	0.0010	0.0005	0.0011	0.0008	0.085	+0.002	+0.1	+0.1	0.0010	0.0009	0.002	+0.001
EPL100	15 Feb 2025	0.02	0.02	+0.004	85.6	0.80	+0.01	-	226	-	0.738	0.020	0.0002	0.0006	0.0001	0.0004	0.0014	+0.0005	0.894	+0.002	0.6	+0.1	0.0022	0.0008	0.004	+0.001
EPL100	19 Apr 2025	-	0.89	+0.004	-	-	-	+0.01	276	-	-	0.020	-	0.0019	-	0.0072	-	0.0015	-	+0.002	-	+0.1	-	0.0018	-	+0.001
EPL100	02 May 2025	+0.02	0.04	+0.004	-	-	-	+0.01	275	-	-	0.011	-	0.0021	-	0.0132	-	0.0015	-	+0.002	-	+0.1	-	0.0015	-	+0.001
EPL100	09 May 2025	-	0.04	+0.004	-	-	-	+0.01	201	-	-	0.020	-	0.0021	-	0.0104	-	0.0013	-	+0.002	-	+0.1	-	0.0018	-	0.001
EPL100	23 May 2025	0.03	0.06	+0.004	-	-	-	0.01	125	-	-	0.013	-	0.0016	-	0.0069	-	0.0011	-	+0.002	-	+0.1	-	0.0010	-	+0.001
EPL100	30 May 2025	-	0.04	+0.004	-	-	-	+0.01	198	-	-	0.015	-	0.0019	-	0.0044	-	0.0009	-	+0.002	-	+0.1	-	0.0012	-	0.001
EPL100	27 Feb 2025	0.02	0.02	+0.004	88.3	1.22	+0.01	-	291	-	0.181	0.064	0.0004	0.0004	0.0132	0.0130	0.0009	+0.0005	0.729	+0.002	+0.1	+0.1	0.0007	0.0006	+0.001	+0.001

EPL28, EPL39, EPL67, EPL69

[illegible]



EPL70, EPL104

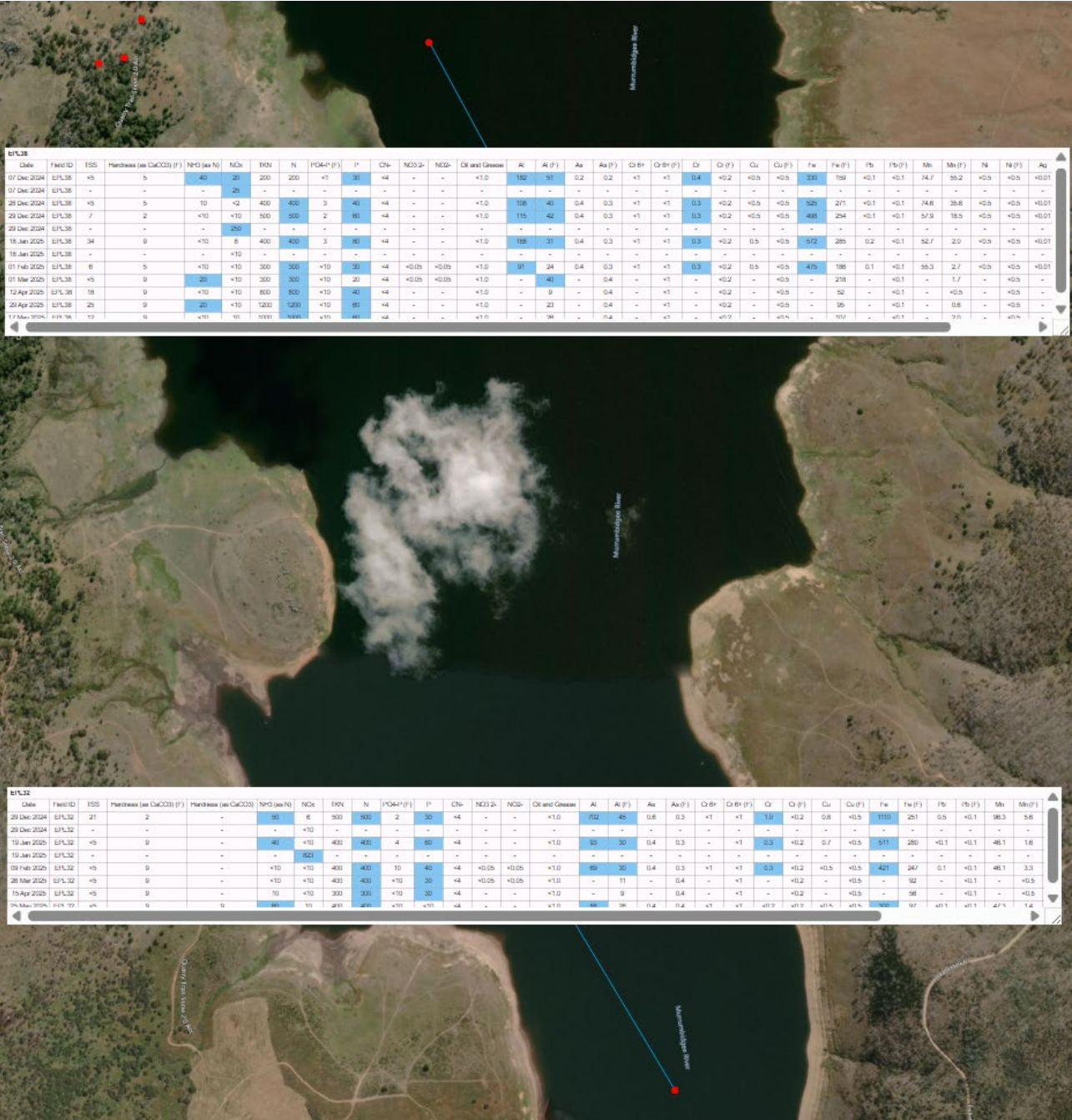


EPL70, EPL103

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14 Dec 2024	EPL103	14 Dec 2024	EPL70
14 Dec 2024	EPL103	14 Dec 2024	EPL70
21 Dec 2024	EPL103	21 Dec 2024	EPL70
21 Dec 2024	EPL103	21 Dec 2024	EPL70
28 Dec 2024	EPL103	28 Dec 2024	EPL70
28 Dec 2024	EPL103	28 Dec 2024	EPL70
04 Jan 2025	EPL103	04 Jan 2025	EPL70
04 Jan 2025	EPL103	04 Jan 2025	EPL70
18 Jan 2025	EPL103	18 Jan 2025	EPL70
18 Jan 2025	EPL103	18 Jan 2025	EPL70
25 Jan 2025	EPL103	25 Jan 2025	EPL70
25 Jan 2025	EPL103	25 Jan 2025	EPL70
01 Feb 2025	EPL103	01 Feb 2025	EPL70
01 Feb 2025	EPL103	01 Feb 2025	EPL70
18 Feb 2025	EPL103	18 Feb 2025	EPL70
22 Feb 2025	EPL103	22 Feb 2025	EPL70
01 Mar 2025	EPL103	01 Mar 2025	EPL70
09 Mar 2025	EPL103	09 Mar 2025	EPL70
15 Mar 2025	EPL103	15 Mar 2025	EPL70
23 Mar 2025	EPL103	23 Mar 2025	EPL70
30 Mar 2025	EPL103	30 Mar 2025	EPL70
03 Apr 2025	EPL103	03 Apr 2025	EPL70
12 Apr 2025	EPL103	12 Apr 2025	EPL70
20 Apr 2025	EPL103	20 Apr 2025	EPL70
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28 Apr 2025	EPL103	28 Apr 2025	EPL70
04 May 2025	EPL103	04 May 2025	EPL70
11 May 2025	EPL103	11 May 2025	EPL70
17 May 2025	EPL103	17 May 2025	EPL70
24 May 2025	EPL103	24 May 2025	EPL70
01 Jun 2025	EPL103	01 Jun 2025	EPL70
EPL103		EPL70	
Date		Date	
Field ID		Field ID	
ESS		ESS	
Hardness (as CaCO3) (°)		Hardness (as CaCO3) (°)	
NPD (as N)		NPD (as N)	
NCh		NCh	
TNH		TNH	
N		N	
[PO4-P] (°)		[PO4-P] (°)	
P		P	
Ch		Ch	
NCh3-P		NCh3-P	
NCh3		NCh3	
Oil and Grease		Oil and Grease	
Al		Al	
Al (P)		Al (P)	
As		As	
As (P)		As (P)	
Cr Br		Cr Br	
Cr Br (P)		Cr Br (P)	
Cr		Cr	
Cr (P)		Cr (P)	
Cu		Cu	
Cu (P)		Cu (P)	
Fe		Fe	
Fe (P)		Fe (P)	
Pb		Pb	
Pb (P)		Pb (P)	
Mn		Mn	
Mn (P)		Mn (P)	
Ni		Ni	
Ni (P)		Ni (P)	
Zn		Zn	
Zn (P)		Zn (P)	
Cd		Cd	
Cd (P)		Cd (P)	
Co		Co	
Co (P)		Co (P)	
Mg		Mg	
Mg (P)		Mg (P)	
K		K	
K (P)		K (P)	
Na		Na	
Na (P)		Na (P)	
Ca		Ca	
Ca (P)		Ca (P)	
Mg		Mg	
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K		K	
K (P)		K (P)	
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Mg		Mg	
Mg (P)		Mg (P)	
K		K	
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Na (P)		Na (P)	
Ca		Ca	
Ca (P)		Ca (P)	
Mg		Mg	
Mg (P)		Mg (P)	
K		K	
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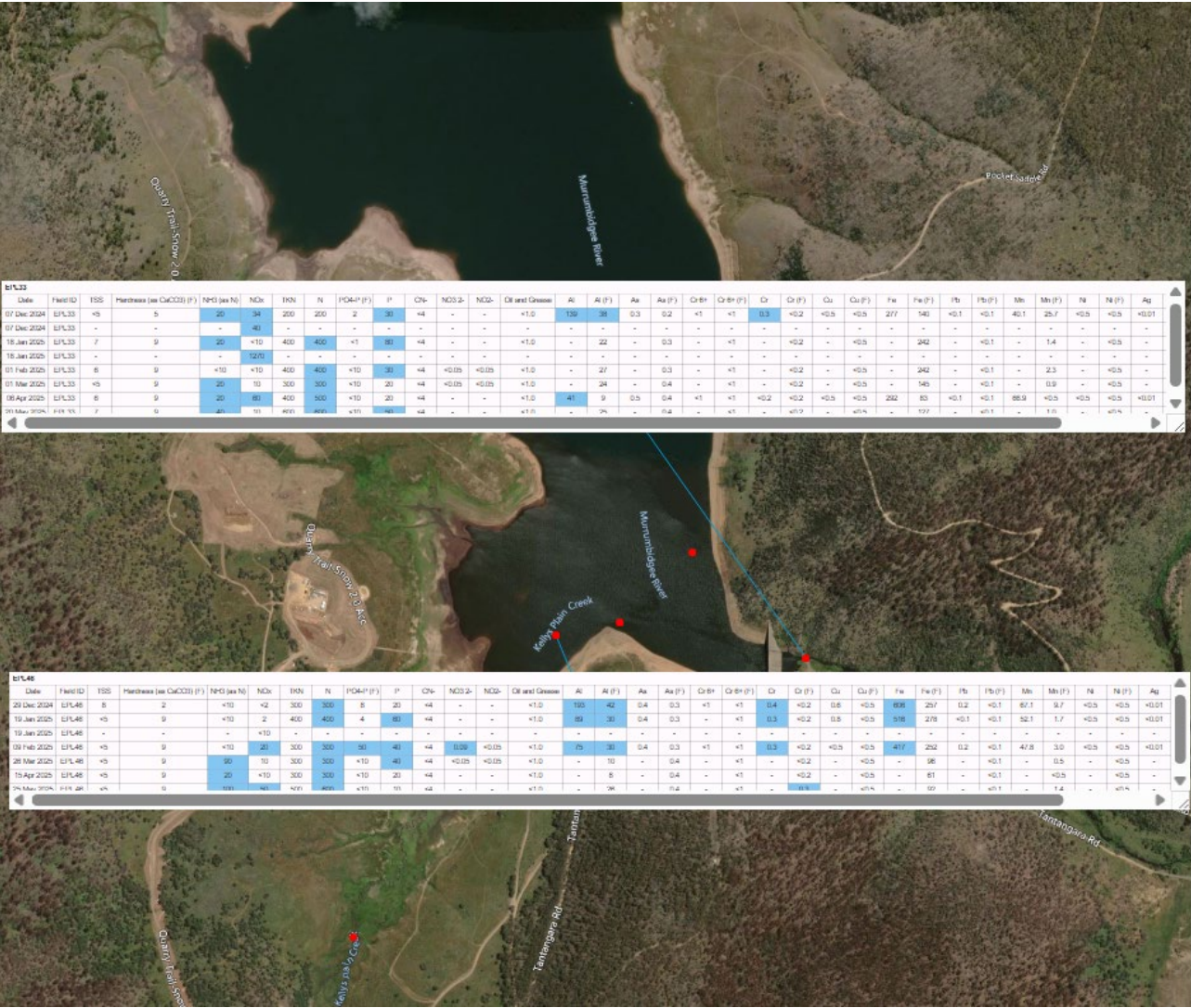


EPL32, EPL38





EPL33, EP46



EPL29, EPL51

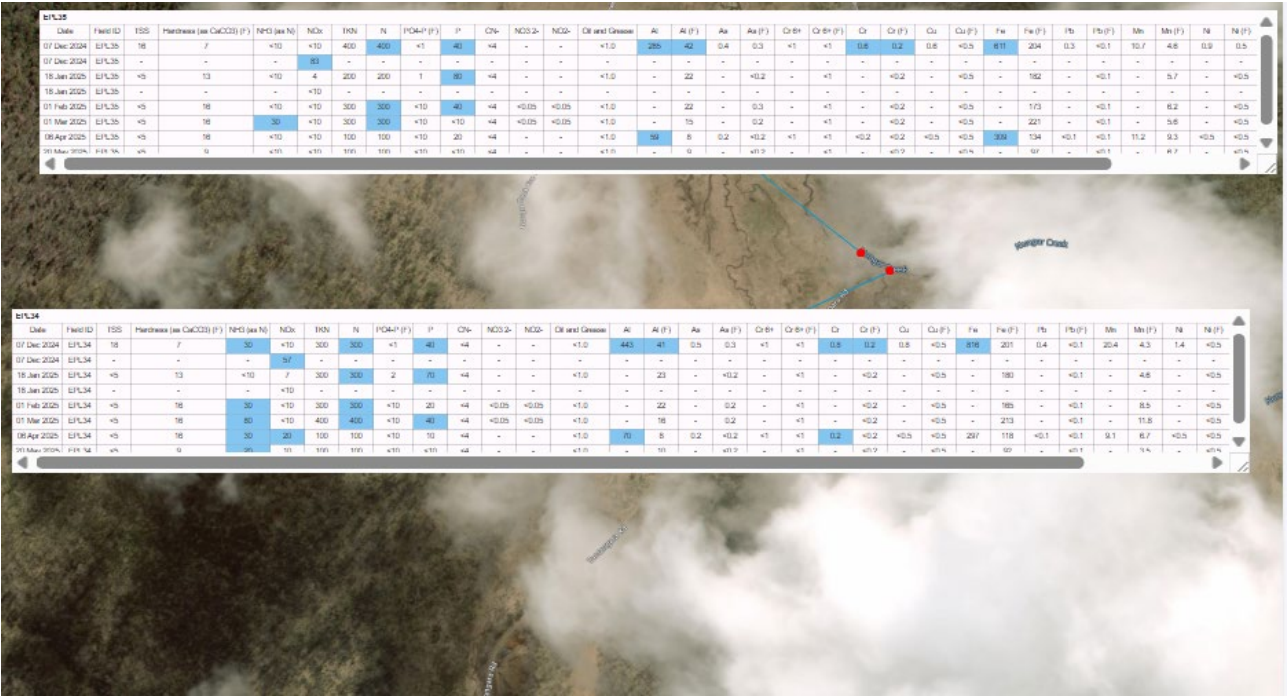




EPL30, EPL31

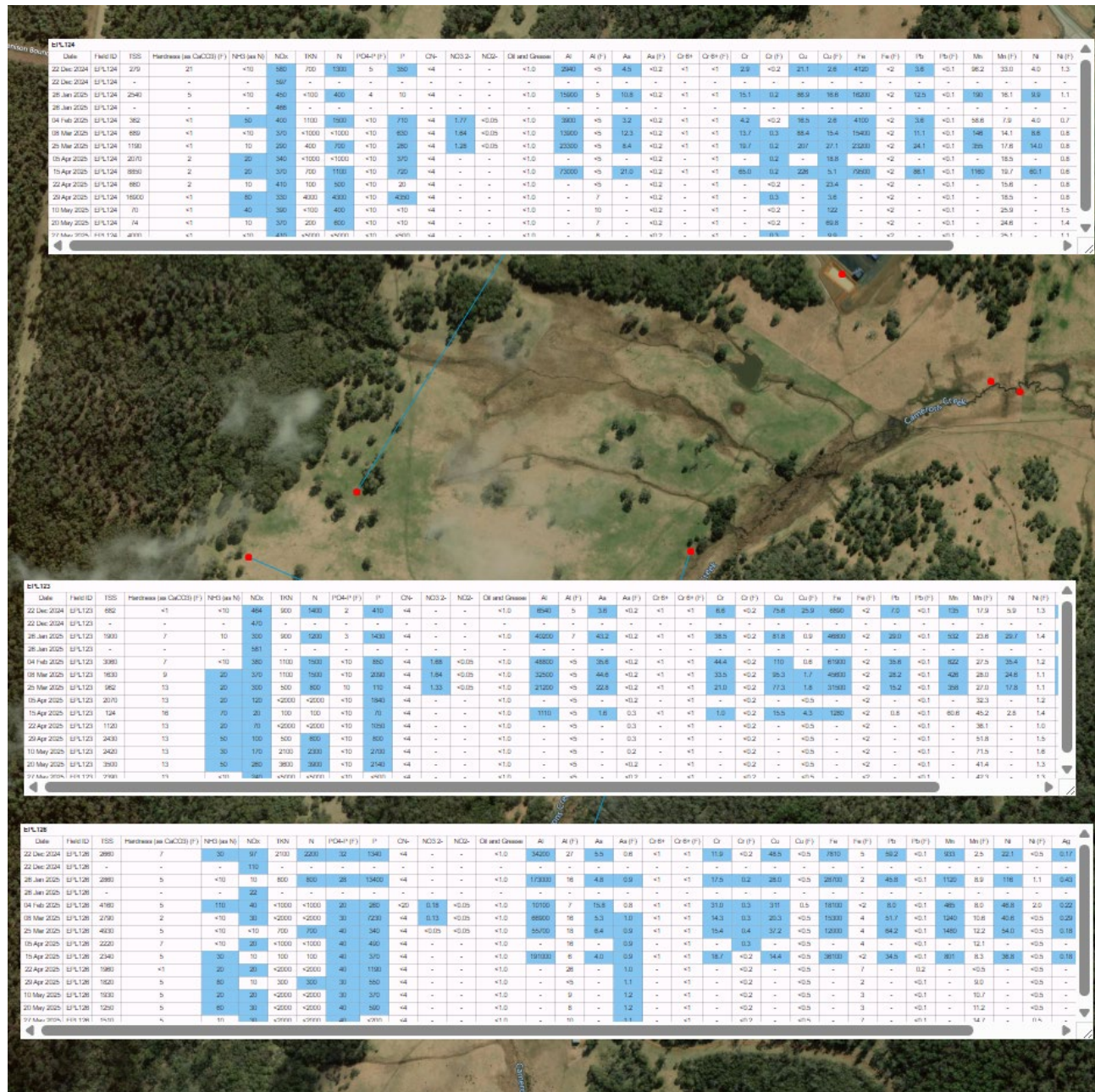


EPL34, EPL35



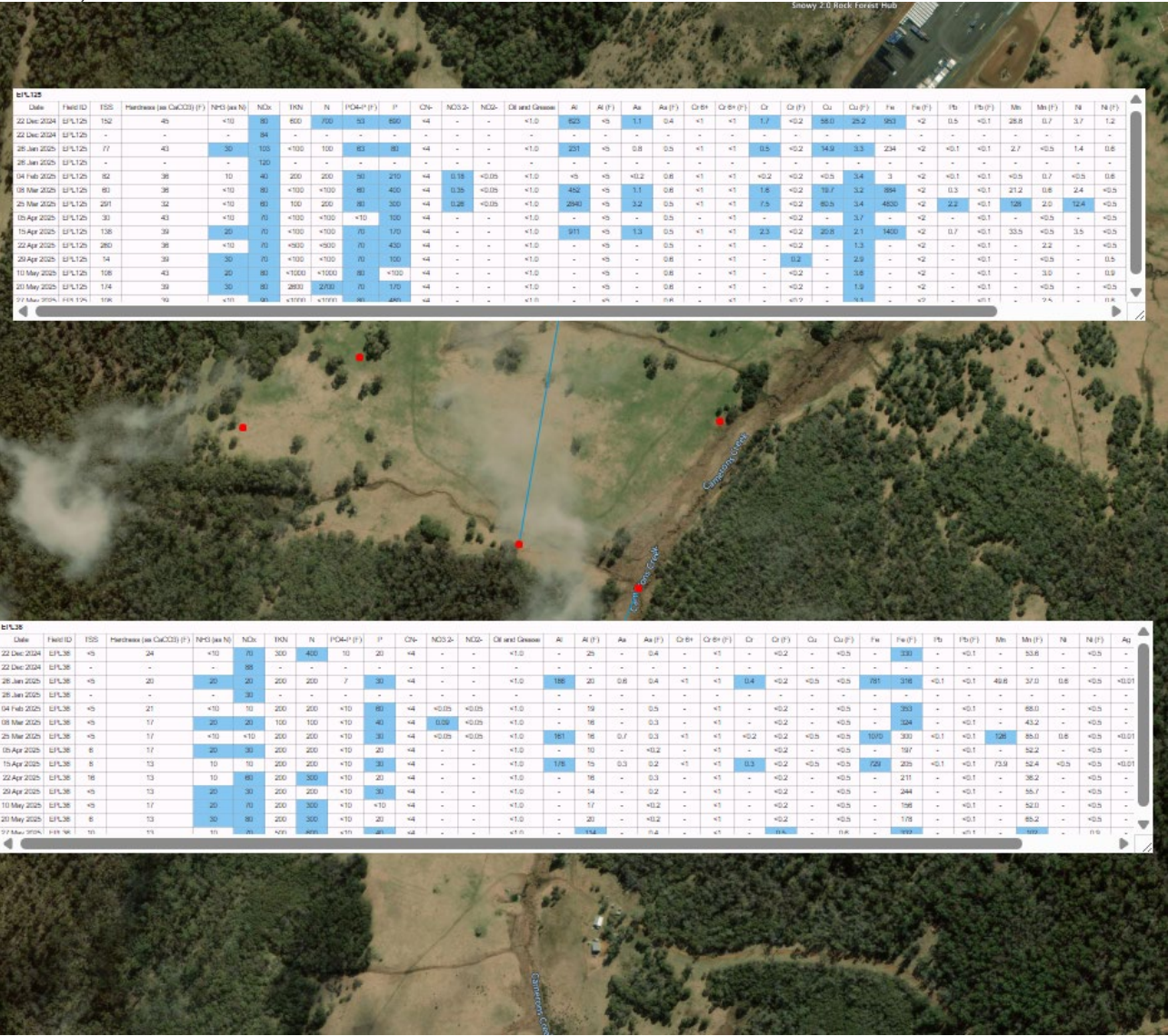


EPL123, EPL124, EPL126





EPL36, EPL125





## EPL37, EPL127

